LANTRONIX®

SPOEB10xx-105

Stand-alone Fast Ethernet PoE Media Converter

10/100Base-TX PoE PSE to 100Base-FX

User Guide

Part Number 33618
Revision D February 2023

Intellectual Property

Warranty

For details on the Lantronix warranty policy, go to http://www.lantronix.com/support/warranty.

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Revision History

Date	Rev.	Description of Changes
7/15/15	A	Release for SPOEB10xx-105. All pages at Rev. A.
12/30/15	B	Add SPOEB1011-105 and SPOEB1013-105. Update DIP switch and Troubleshooting sections.
11/29/17	C	Update DIP switch 8 description and contact information.
2/17/23	D	Initial Lantronix rebrand.

Contents

Product Description

The Lantronix SPOEB10xx-105 Power over Ethernet (PoE) converter is a two port 10/100Base-TX to 100Base-FX media converter capable of providing power to Data Terminal Equipment (DTE) Power Devices (PD) via the Media Dependent Interface (MDI) twisted pair cable. The SPOEB10xx-105 emulates Power Sourcing Equipment (PSE) and provides power via the 10/100Base-TX interface for a remote PD device that complies with the IEEE802.3af™ standard.

The SPOEB10xx-105 lets enterprises provide power to network devices over the existing CAT5 data connection. Lantronix' AC powered PoE media converters combine data received over a fiber optic link with -48VDC power; providing power to Data Terminal Equipment (DTE) Power Devices (PD) over unshielded twisted pair (UTP) cable. The PoE converters are Power Sourcing Equipment (PSE) and are fully compatible with Powered Devices (PDs) that comply with the IEEE802.3af™: 2003 standard. The converters also include PD signature sensing and power monitoring features per the IEEE 802.3af standard. Other features include Over-Current Protection, Under-Current Detection, and Fault Protection Input. This feature-enhanced model offers the ability to enable/disable many of the features as well as force port capabilities. In addition, with the PSE/LPT switch enabled, a loss of Fiber RX will disable PSE power output on the UTP port for two seconds to allow the remote device to re-initialize.

The PoE converter is fully compatible with devices that comply with the IEEE802.3af standard. The PoE converter is capable of inserting power on data pairs of the MDI.

Ordering Information

Models

Number	Description
SPOEB1039-105	10/100Base-TX RJ-45 PoE to 100Base-FX MM LC 2km
SPOEB1040-105	10/100Base-TX RJ-45 PoE to 100Base-FX Open SFP Slot
SPOEB1011-105	10/100Base-TX RJ-45 PoE to 100Base-FX MM ST 2km
SPOEB1013-105	10/100Base-TX RJ-45 PoE to 100Base-FX MM SC 2km

Optional Accessories

Part Number	Description
WMBL	Wall Mount Bracket: Length: 4.0 in. (102 mm), fits converter length: 4.7 in. (119mm)
WMBD	DIN Rail Mount Bracket; Length: 5.0 in. (127 mm)
WMBV	Vertical Wall Mount Plate; Length: 5.0 in. (127 mm)
RMS19-SA4-01	4-Slot Media Converter Shelf
SFP Modules	Lantronix offers a full line of SFP Transceivers. See our SFP product page

Distances

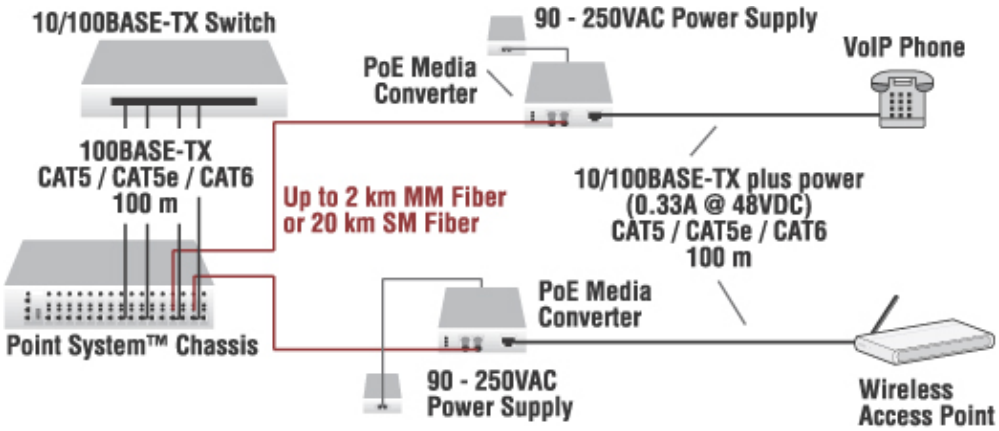
Number	Port One - Copper 10/100Base-TX	Port Two - Duplex Fiber-Optic 100Base-FX
SPOEB1039-105 (LC)	RJ-45 PoE; 100 m (328 ft.)*	LC, 1300nm multimode, 2km (1.2 miles)
SPOEB1040-105 (SFP)	RJ-45 PoE; 100 m (328 ft.)*	SFP, open slot
SPOEB1011-105 (ST)	RJ-45 PoE; 100 m (328 ft.)*	ST, 1300 nm multimode; 2 km (1.2 miles)
SPOEB1013-105 (SC)	RJ-45 PoE; 100 m (328 ft.)*	SC, 1300 nm multimode; 2 km (1.2 miles)

***** Cable distances are typical maximum distances. Actual distance depends on the physical characteristics of the network installation.

Features

- Stand-Alone Media Converter
- Power Over Ethernet (15.4W)
- 10/100Base-TX to 100Base-FX
- External AC power supply
- IEEE 802.3af Power Over Ethernet compatible
- 48 VDC PSE output voltage
- Applies power on the data pairs (aka Alt A, or Mode A)
- PD Detection Signature
- Over-Current Protection and Under-Current Detection
- Powered Device (PD) Reset
- PD Detection Signature
- Minimum Load Sensing
- Fault Protection Input
- Auto-Negotiation (802.3u): allows devices to perform automatic configuration to achieve the best possible mode of operation over a link.
- AutoCross™: automatically detects and configures the twisted pair port to the correct MDI or MDI-X configuration.
- Link Pass Through (LPT): a troubleshooting feature that lets the media converter monitor both fiber and copper RX ports for loss of signal.
- Far End Fault (FEF): a troubleshooting feature generally used with Link Pass Through to notify both end devices of a loss of link.
- Automatic Link Restoration: lets Lantronix' converters automatically re-establish link in all network conditions.

Application Example - Power over Cat5 to Remote Devices



Packing List

Make sure that you have received the following with your SPOEB10xx-105:

- One SPOEB10xx-105 Media Converter
- One external power supply and region-specific power cord (when ordered as SPOEB10xx-105-xx)
- Four rubber feet
- One printed Documentation Post Card

Please save the packing material for possible future use.

Installation

CAUTION: All installation and service must be performed by qualified service personnel. Read and follow all warning notices and instructions marked on the product and included in this manual.

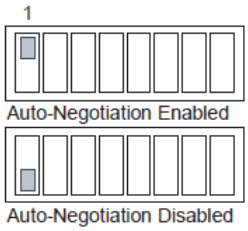
Set the Configuration DIP Switch

The configuration switches are located on the side panel of the SPOEB10xx-105 media converter. Use a small, flat blade screwdriver to set the switches.

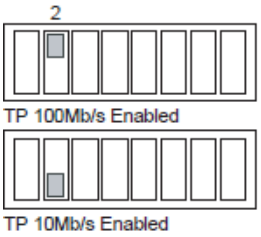
Eight-position Configuration Switch (SW1)

1 - TP Autoneg - Up = TP Autoneg Enabled, Down = TP Autoneg Disabled.
2 - TP Speed - Up = TP 100Mbs, Down = TP 10 Mb/s (only when TP Autoneg Disabled).
3 - TP Duplex - Up = TP Full Duplex, Down = TP Half Duplex (only when TP Autoneg disabled).
4 - FBR Duplex - Up = FBR Full Duplex, Down = FBR Half Duplex.
5 - LPT Select – Up = LPT Enabled, Down = LPT Disabled.
6 - PSE Select - Up = PSE Enabled, Down = PSE Disabled.
7 - PSE/LPT power off LPT - Up = Disabled, Down = Enabled.
8 - Reserved.

1 - TP Auto-Negotiation
Up - Enables Auto-Negotiation.
Down - Disables Auto-Negotiation.
The Auto-Negotiation feature allows the media converter to bring up the copper links to the highest speed and mode possible for all the attached network devices.

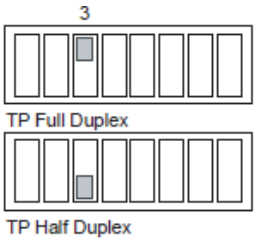


2 - TP Speed
Up - Forces 100 Mb/s on the copper port.
Down - Forces 10 Mb/s on the copper port.
(Only has effect when Auto-Negotiation is disabled.)

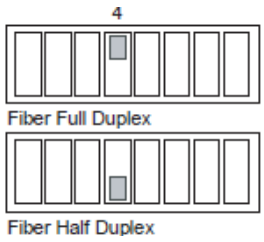


3 - TP Full/Half Duplex

Up - Full-Duplex; the twisted-pair cable distances are constrained by cable requirements.
Down - Half-Duplex; the twisted-pair cable distances are constrained by the 512-Bit Rule.
(Only has effect when Auto-Negotiation is disabled.)

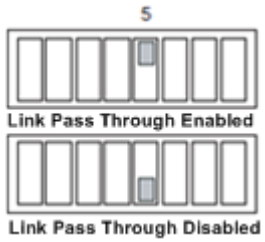


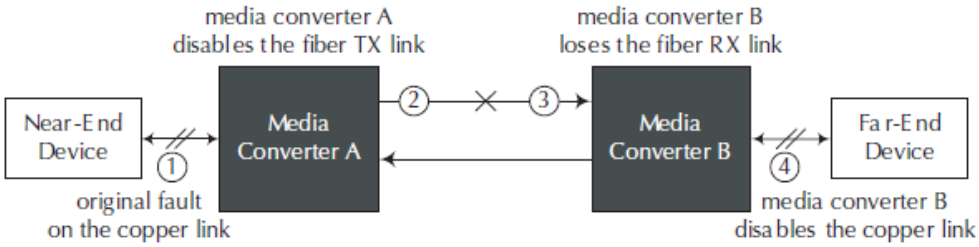
4 - Fiber Full/Half Duplex
Up - The cable distances for the fiber port are constrained by the cable requirements.
Down - The cable distances for the fiber port are constrained by the 512-Bit Rule.



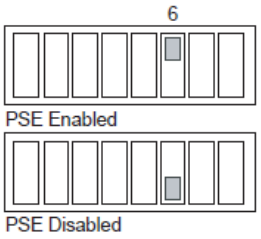
5 - LPT – Link Pass Through
Up - Enables the **LPT** function.
Down - Disables the **LPT** function.

The Link Pass-Through allows the media converter to monitor both the fiber and copper RX (receive) ports for loss of signal. In the event of a loss of an RX signal on one media port, the media converter will automatically disable the TX (transmit) signal of the other media port, thus, "passing through" the link loss. The far-end device is automatically notified of the link loss, which prevents the loss of valuable data unknowingly transmitted over an invalid link. See diagram below.



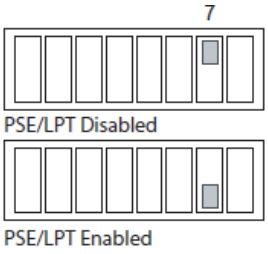


6 - PSE Power
Up - Enables PSE power.
Down - Disables PSE power.
The IEEE 802.3af™ standard allows a device to provide power (PSE - Power Sourcing Equipment) to a remote device and for a remote device (PD - Powered Device) to accept and use this power over a twisted pair interface.



7 - PSE/LPT (POE power off LPT - OPEN = Disabled)
Up - Disable PSE/LPT.
Down - Enable PSE/LPT.

This feature is used to re-initialize a powered device (PD). If the fiber RX (receive) link drops with the PSE/LTP switch in the enabled position (down), the PSE power will turn OFF for two seconds then turn back ON to re-start the remote device.
The power will remain ON to allow the remote PD to re-establish the link with the media converter. Note that this feature requires DIP switch 5 (LPT) to also be enabled.

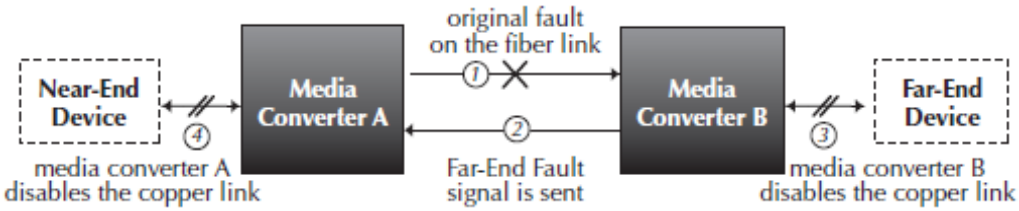


8 - Reserved
Reserved for future use.

Additional Features

Far-End Fault (always enabled)

This troubleshooting feature is generally used in conjunction with Link Pass Through to notify both end devices of a link loss. If the fiber RX signal is lost on the far end converter, the converter will automatically generate a far-end fault signal and send it on its TX fiber port to notify the near-end converter of the fiber link loss. Link Pass-Through will then disable the copper link on both ends, alerting both end devices of network trouble. See diagram below.



- Both end devices are notified automatically of the link loss
- Prevents loss of valuable data transmitted unknowingly over invalid link
- Allows quick diagnosis and resolution of network problem

Lantronix' media converters that include the FEF feature will work with other network devices that support Far End Fault per IEEE standards.

Automatic Link Restoration (always enabled)

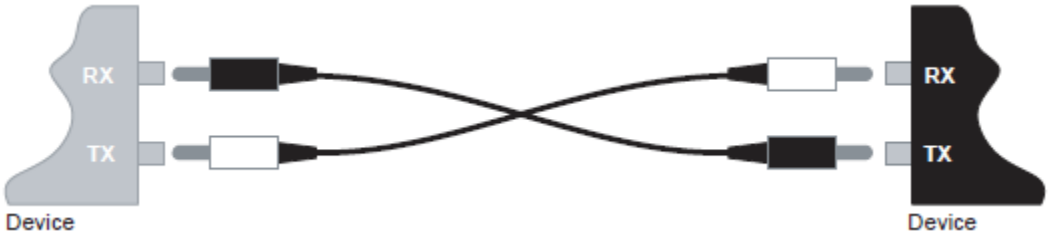
Lantronix' converters will automatically re-establish the link in all network conditions:

- Without a device reset, the converters will automatically re-establish the link when connected to switches after a link loss.
- With Auto-Negotiation enabled, automatic link restoration allows using Auto-Negotiation with Link-Loss Notification.
- With Link Pass-Through enabled in both directions, automatic link restoration allows using Link-Loss Notification in both directions.

CAUTION: Associated Ethernet wiring must be limited to inside the building.

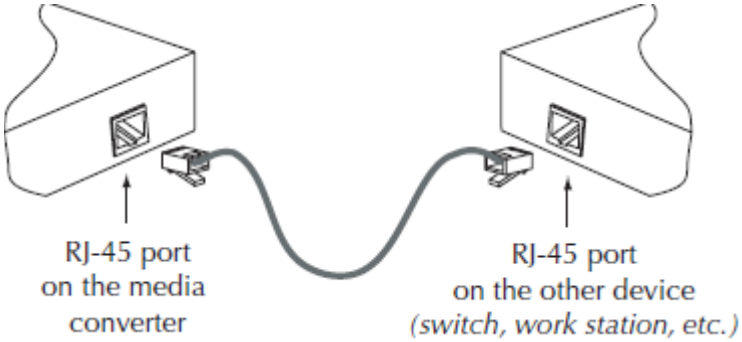
Installing Fiber Cables

1. Locate a 100Base-FX fiber cable with male, two-stranded TX to RX connectors installed at both ends.
2. Connect the fiber cables to the SPOEB10xx-105 media converter as described:
   - Connect the male TX cable connector to the female TX port.
   - Connect the male RX cable connector to the female RX port.
3. Connect the fiber cables to the other device (another media converter, hub, etc.) as follows:
   - Connect the male TX cable connector to the female RX port.
   - Connect the male RX cable connector to the female TX port.



Installing the Copper Cable

1. Locate 100Base-TX copper cables with male, RJ-45 connectors installed at both ends.
2. Connect the RJ-45 connector at one end of the cable to the RJ-45 port on the media converter.
3. Connect the RJ-45 connector at the other end of the cable to the RJ-45 port on the other device (wireless access point, VoIP phone, network camera, etc.).



Connecting Power

Use only the Power Supply that shipped with the SPOEB.

1. Connect the barrel connector on the power adapter to the power port on the media converter (back panel).
2. Connect the power adapter plug to AC power.
3. Verify that the front panel PWR LED is lit indicating the SPOEB is powered.

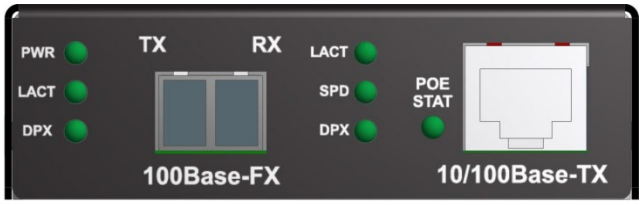
External Power Supply, Power Cord and SPOEB
(included external power supply and power cord may vary by region)

Power Supply Included: To order the corresponding country specific power supply, add the Country Code extension to the end of the SKU: -NA = North America, -LA = Latin America, -EU = Europe, -UK = United Kingdom, -SA = South Africa, -JP = Japan, -OZ = Australia, -BR = Brazil.

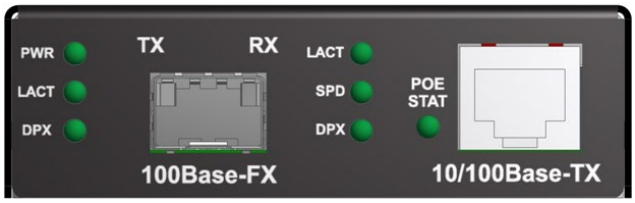
Operation

Status LEDs

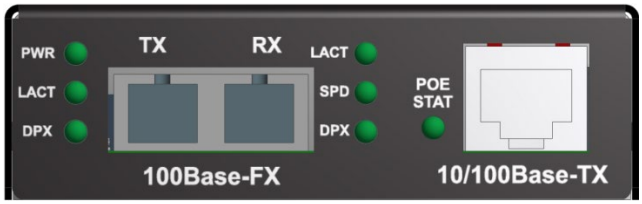
The SPOEB10xx-105 front panels are shown below.



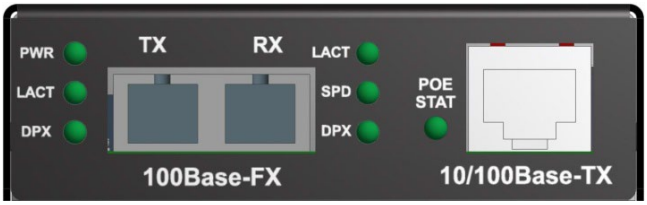
SPOEB1039-105



SPOEB1040-105



SPOEB1011-105



SPOEB1013-105

The SPOEB10xx-105 front panel LEDs are described below.

LED	Description
PWR	Device Power. Green = Power ON.
LACT (fiber)	Fiber Link Activity. Green: ON = Link, Blinking = activity.
DPX (fiber)	Fiber Duplex mode. Green: ON = Full, OFF = Half.
LACT (TP)	TP Link Activity. Green: ON = Link, Blinking = activity.
SPD (TP)	TP Speed. Green: ON = 100Mb/s, OFF = 10Mb/s.
DPX (TP)	TP Duplex mode. Green: ON = Full, OFF = Half, Blinking = collision.
POE STAT	Power over Ethernet State. Green: ON = Enabled, OFF = Disabled.

LACT = Link Activity. **DPX** = Duplex. **SPD** = Speed. **TP** = Twisted Pair. **LTC** = PoE controller.

PoE Status LED Scheme

The PoE controller component provides the following LED reporting:

LED Condition	Meaning
LED Off	Non-Powered Device: 0 ohms < RPORT < 200 ohms.
LED Off	Port Open: RPORT > 1M ohms.
LED On	Port On: 25k ohms.
1 Flash	Low Signature Resistance: 300 ohms < RPORT < 15k ohms.
2 Flashes	High Signature Resistance: 33k ohms < RPORT < 500k ohms.
5 Flashes	Port Overload Fault.
9 Flashes	Power Management: Allocation Exceeded.

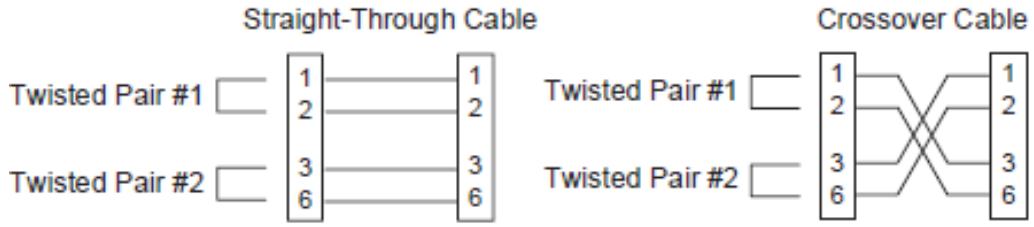
Cable Specifications

The cable's physical characteristics must meet or exceed IEEE 802.3™ specifications.

Copper Cable

Category 5: (Minimum Requirement)
Gauge: 24 to 22 AWG
Attenuation: 22.0 dB /100m @ 100 MHz

- Straight-through OR crossover twisted-pair cable may be used.
- Shielded twisted-pair (STP) OR unshielded Twisted-pair (UTP) may be used.
- Pins 1&2 and 3&6 are the two active pairs in an Ethernet network.
- RJ-45 Pin-out: Pin 1 = TD+, Pin 2 = TD-, Pin 3 = RD+, Pin 6 = RD-.
- Use only dedicated wire pairs for the active pins:
  (e.g., *blue/white & white/blue, orange/white & white/orange*, etc.)



- Do not use flat or silver satin wire.

Fiber Cable

The fiber optic transmitters on this device meet Class I Laser safety requirements per IEC-825/CDRH standards and comply with 21 CFR1040.10 and 21CFR1040.11.

Fiber Specifications

SPOEB1011-105 (ST)	*SPOEB1013-105 (SC)*	*SPOEB1039-105 (LC)*
1x9, 850nm, ST, MM, 3.3V Multimode, Dual fiber, Distance = 2km, Wavelength = 1310 nm Data rate = 100Mbps Max Spectral Width = 400.0nm FWHM Min Tx Power=-19.0 dBm Max Tx Power=-14.0 dBm Rx Sensitivity=-30.0 dBm Rx Max In Power=-14.0 dBm Link Budget=11.0 dB	1x9, 850nm, SC, MM, 3.3V Multimode, Dual fiber, Distance = 2km, Wavelength = 1310nm Data rate = 100Mbps Max Spectral Width = 400.0nm FWHM MN Tx Power = -19.0 dBm Max Tx Power = -14.0 dBm Rx Sensitivity = -30.0 dBm Rx Max In Power = -14.0 dBm Link Budget = 11.0 dB	Multi Mode Dual Fiber Wavelength = 1310 nm Laser transmitter PN 13300 Spectral Width Max. = 147.0nm FWHM Min. TX Power = -19.0 dBm Max. TX Power = -14.0 dBm RX Sensitivity = -30.0 dBm RX Max. In Power = -14.0 dBm Link Budget = 11.0 dB

Technical Specifications

For use with Lantronix SPOEB10xx-105 or equivalent.

Standards	IEEE 802.3, IEEE 802.3af
Data Rate	10/100 Mbps
Max Frame Size	1600 bytes
Mac Addresses	2K
Dimensions	3.25" x 1" x 4.8" (82 mm x 25.4mm x 120mm)
Weight	Device: 0.8 lbs. [362 g] approx. Package: 2 lbs. [0.90 kg].
Power Consumption	20 Watts max.
Power Supply	External Isolated Class II 30W Power Supply: 90 – 250 VAC input; 48VDC output. (Note: included power supply may vary by region.)
Environment	Operating: 0°C to 50°C Storage: -25° to +85°C Humidity: 5% to 90% (non-condensing) Altitude: 0 – 10,000 ft.
MTBF	49,981 MIL217F2 Hours; 132,144 Bellcore Hours*
Compliance	EN55022:1994+A1:1996+A2:1997 Class A, FCC Part 15 Subpart B, UL 1950
Warranty	Lifetime

Note: The information in this manual is subject to change.

Product is certified by the manufacturer to comply with DHHS Rule 21/CFR, Subchapter J applicable at the date of manufacture.

WARNING: Visible and invisible laser radiation when open. Do not stare into the beam or view the beam directly with optical instruments. Failure to observe this warning could result in an eye injury or blindness.

WARNING: Use of controls, adjustments or the performance of procedures other than those specified herein may result in hazardous radiation exposure.

WARNING: If the media converter is an IEEE802.3-2005 Powered Device (PD) capable of receiving power via the Media Dependent Interface (MDI) leads, the power source, connector, and cabling attached to the barrel power connector must meet the isolation requirement specified in IEEE802.3-2005. Failure to observe this warning could result in an electrical shock.

IMPORTANT Copper based media ports, e.g., Twisted Pair (TP) Ethernet, USB, RS232, RS422, RS485, DS1, DS3, Video Coax, etc., are intended to be connected to intra-building (inside plant) link segments that are not subject to lightening transients or power faults. Copper based media ports, e.g., Twisted Pair (TP) Ethernet, USB, RS232, RS422, RS485, DS1, DS3, Video Coax, etc., are NOT to be connected to inter-building (outside plant) link segments that are subject to lightening transients or power faults. Failure to observe this caution could result in damage to equipment.

* MTBF is estimated using the predictability method. This method is based on MIL-217F at 25°C ambient temperature, typical enclosure heat rise of 10°C, and nominal operating conditions and parameters. Installation and configuration specific MTBF estimates are available upon request. Contact Technical Support.

Troubleshooting

If the media converter fails, isolate and correct the fault by determining the answers to the following questions and then take the indicated action:

1. Is the media converter **PWR** LED lit?

   NO:

   • Is the barrel connector fully inserted into the media converter?
   • Is the adapter plugged into an AC outlet; if not, plug it into the outlet.
   • Is the AC outlet active? If not, check the outlet's circuit beaker
   • Contact Technical Support.

   YES

   • Go to step 2.

2. Is the **POE STAT** LED lit?

   NO

   • Is there an active (connected to another device) RJ-45 cable inserted into the media converter's TX port; if not, insert the cable accordingly.
   • Is power turned on and the power LED lit on the other device? See "Status LEDs" on page 11.
   • Contact Technical Support.

   YES

   • Go to step 3.

3. Is the copper **TP LACT** LED lit?

   NO

   • Check the twisted pair cables for proper installation in the device at both ends.
   • Disconnect and reconnect the twisted pair cable to restart the initialization process.
   • Restart the attached device to restart the initialization process.
   • Contact Technical Support.

   YES

   • Go to step 4.

4. Is the fiber **RX LACT** LED lit?

   NO

   • Check the fiber cables for proper connection.
   • Verify that the TX and RX cables on the media converter are connected to the RX and TX ports, respectively, on the other device.
   • Disconnect and reconnect the fiber cable to restart the initialization process.
   • Restart the attached device to restart the initialization process.
   • Contact Technical Support.

   YES

   • Go to step 5.

5. Is data being passed through the device?

   NO

   • Ensure the Powered Device (PD) IEEE 802.3af compliant.
   • Ensure the load to the Powered Device (PD) is less than 0.4 Amp.
   • Is a data source connected; if not, connect a data source to the media converter.
   • Is the data source active; if not, start sending data.
   • Are the FX **LACT** and TX **LACT** LEDs flashing? See "Status LEDs" on page 11.
   • Verify the DIP switch settings. See "Set the Configuration DIP Switch" on page 6.
   • Check the fiber **SPD** LED condition. See "Status LEDs" on page 11.
   • Check the fiber **DPX** LED condition. See "Status LEDs" on page 11.
   • Contact Technical Support.

Safety Warnings and Cautions

These products are not intended for use in life support products where failure of a product could reasonably be expected to result in death or personal injury. Anyone using this product in such an application without express written consent of an officer of Lantronix does so at their own risk and agrees to fully indemnify Lantronix for any damages that may result from such use or sale.

 **Attention**: this product, like all electronic products, uses semiconductors that can be damaged by ESD (electrostatic discharge). Always observe appropriate precautions when handling.

 **Warning**: Potential for damage to equipment or personal injury.

 **Warning**: Risk of Electrical Shock

Compliance Certifications

CISPR22/EN55022 Class A
CE Mark

FCC Regulations
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 when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at the user's own expense.

Canadian Regulations
This digital apparatus does not exceed the Class A limits for radio noise for digital apparatus set out on the radio interference regulations of the Canadian Department of Communications.
Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la Class A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

European Regulations
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.
Achtung !
Dieses ist ein Gerät der Funkstörgrenzwertklasse A. In Wohnbereichen können bei Betrieb dieses Gerätes Rundfunkstörungen auftreten. In diesem Fäll ist der Benutzer für Gegenmaßnahmen verantwortlich.
Attention !
Ceci est un produit de Classe A. Dans un environment domestique, ce produit risque de créer des interférences radioélectriques, il appartiendra alors à l'utilsateur de prende les measures spécifiques appropriées.

In accordance with European Union Directive 2002/96/EC of the European Parliament and of the Council of 27 January 2003, Lantronix will accept post usage returns of this product for proper disposal. The contact information for this activity can be found in the 'Contact Us' portion of this document.

CAUTION: RJ connectors are NOT INTENDED FOR CONNECTION TO THE PUBLIC TELEPHONE NETWORK. Failure to observe this caution could result in damage to the public telephone network.

Der Anschluss dieses Gerätes an ein öffentlickes Telekommunikationsnetz in den EGMitgliedstaaten verstösst gegen die jeweligen einzelstaatlichen Gesetze zur Anwendung der Richtlinie 91/263/EWG zur Angleichung der Rechtsvorschriften der Mitgliedstaaten über Telekommunikationsendeinrichtungen einschliesslich der gegenseitigen Anerkennung ihrer Konformität.

Declaration of Conformity

Manufacture's Name: Lantronics, Inc.
Manufacture's Address: 48 Discovery, Suite 250, Irvine, California 92618 USA

DECLARES THAT THE PRODUCT(S)
SPOEB1039-105 (LC)
SPOEB1040-105 (SFP)
SPOEB1011-105
SPOEB1013-105

CONFORM TO THE FOLLOWING PRODUCT REGULATIONS:
IEC 60079-0 Ed.6, IEC 60079-15 Ed.4, EN 60079-0:2012, EN 60079-15:2010, IEC 60079-28 Ed.1, EN 60079-28:2007, CE certified, FCC Part 15, CISPR (EN55022) class EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, and EN61000-4-11, IEC60068-2-27, IEC60068-2-32, IEC60068-2-6, EN60950-1

With the technical construction on file at the above address, this product carries the CE Mark
I, the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s) and Standard(s).
Place: Irvine, California
Date: April 27, 2022
Signature: *Fathi Hakam*
Full Name: Fathi Hakam
Position: Vice President of Engineering

Electrical Safety Warnings

 **Electrical Safety**

IMPORTANT: This equipment must be installed in accordance with safety precautions.

Elektrische Sicherheit

WICHTIG: Für die Installation dieses Gerätes ist die Einhaltung von Sicherheitsvorkehrungen erforderlich.

Elektrisk sikkerhed

VIGTIGT: Dette udstyr skal installers I overensstemmelse med sikkerhedsadvarslerne.

Elektrische veiligheid

BELANGRIJK: Dit apparaat moet in overeenstemming met de veiligheidsvoorschriften worden geïnstalleerd.

Sécurité électrique

IMPORTANT : Cet équipement doit être utilisé conformément aux instructions de sécurité.

Sähköturvallisuus

TÄRKEÄÄ : Tämä laite on asennettava turvaohjeiden mukaisesti.

Sicurezza elettrica

IMPORTANTE: questa apparecchiatura deve essere installata rispettando le norme di sicurezza.

Elektrisk sikkerhet

VIKTIG: Dette utstyret skal enstallers I samsvar med sikkerhetsregler.

Segurança eléctrica

IMPORTANTE: Este equipamento tem que ser instalado segundo as medidas de precaução de segurança.

Seguridad eléctrica

IMPORTANTE: La instalación de este equipo deberá llevarse a cabo cumpliendo con las precauciones de seguridad.

Elsäkerhet

OBS! Alla nödvändiga försiktighetsåtgärder måste vidtas när denna utrustning används.

Lantronix Corporate Headquarters
48 Discovery, Suite 250
Irvine, CA 92618, USA
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Phone: 949-453-3990
Fax: 949-453-3995

Technical Support
https://www.lantronix.com/technical-support/

Sales Offices
For a current list of our domestic and international sales offices, go to the Lantronix web site at www.lantronix.com/about/contact.