LANTRONIX®

M-MCR-01

Mini Media Converter Chassis

User Guide

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Warranty

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

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For a current list of our domestic and international sales offices, go to www.lantronix.com/about/contact.

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Revision History

Date	Rev	Description
1/27/16	A	Initial release.
2/15/23	B	Lantronix rebrand. Update artwork.
10/16/24	C	Add NDAA and TAA Compliant, fix typo, update contact information.

Contents

Introduction

The Lantronix M-MCR-01 is a 19" powered chassis for Lantronix Mini Media Converters. **Note**: the M-MCR-01 is only intended for installation of supported Mini Media Converters designed and built by Lantronix.

The M-MCR-01 is a high-density powered 19" rack mountable chassis for Lantronix Mini Converters, the most miniaturized converters in the industry. It offers a powered standard 19" chassis for Mini Converter installation and power input in central office and other deployments, as an accessory to the Mini Converter series portfolio.

The M-MCR-01 features 18 slots for side-mounted Mini Converters, an internal AC power supply (included) to provide 12 VDC output, and a powered backplane with barrel connectors. Lantronix' M-MCR-01 provides space and power in a rack-mountable chassis for eighteen (18) separate and independent Lantronix stand-alone Media Converters, each with power requirements of 12 VDC.

Product Description

The M-MCR-01 Mini Media Converter Chassis is a 19" rack mountable powered chassis for the Mini family of stand-alone media converters. Designed for Lantronix' line of office grade, non-hardened, mini media converters, this chassis is ideal for installations where multiple Minis are being deployed in the same location. The M-MCR-01 offers a simple, cost-effective way to securely mount up to 18 Mini Converters while requiring a single AC power connection.

As networks grow, so does the need to interface between various types of cabling infrastructure, and the Mini copper-to-fiber Media Converters offer a low cost, space saving option for making those connections between disparate cable types. The M-MCR-01s is suitable for Enterprise and Government applications where multiple points of fiber connectivity are required. The chassis can accept any combination of Lantronix layer 1 100Base and 1000Base Mini Media Converters as well as the layer-2 10/100 and 10/100/1000 Mini media converters, all with the barrel-type DC power input connector. Each M-MCR-01 slot has a fuse to keep one malfunctioning Mini Converter from affecting the rest.

The M-MCR-01 occupies 1.5U of rack space, allowing two chassis to be mounted in 3 units of rack space, efficiently using critical rack space in datacenters or wiring closets. The Mini Converters are hot-swappable and directly connect to the chassis backplane to receive their power connection. Three lock-down bars can be raised and lowered to allow additional Mini Converters to be installed in an active chassis. These bars are also used to securely hold the Mini Converter in the chassis, even when the copper and fiber data cables are being inserted and removed from the individual Mini Converters.

Features

- 19" rack mountable powered chassis
- Securely houses up to 18 Mini Media Converters
- Universal AC power supply independently powers up to 18 hot-swappable Mini Media Converters
- Supports hot-swappable converters
- Supports a wide array of hot-swappable Lantronix Mini Media Converters
- Any combination of non-hardened Lantronix Mini converters
- Provides modular, centralized, high-density media conversion
- 0º to 50ºC operating temperature
- 23" rack mount brackets available
- Applications for Enterprise Networks, Higher Education, Corporate Campus, Physical Security & Surveillance, and Government Agency Networks
- TAA and NDAA Compliant
- Lifetime Warranty

Package Contents

Contact your sales representative if you have not received the following:

- ☐ One M-MCR-01 Mini Media Converter Chassis
- ☐ One Power Supply
- ☐ One counrtry-specific Power Cord
- ☐ Kit, Rack Mount Ears
- ☐ Nine Rubber Feet
- ☐ One Documentation Postcard **or** One User Guide (this manual)

Save the packing material for possible future use.

Power Cord Included: To order the corresponding country-specific power cord, add the extension from the list below to the end of the SKU. For example M-MCR-01-NA = North America, -LA = Latin America, -EU = Europe, -UK = United Kingdom, -SA = South Africa, -JP = Japan, -OZ = Australia, -BR = Brazil.

Note: Some Documentation may have Transition Networks named or pictured. Transition Networks was acquired by Lantronix in August 2021.

Installation

Table Top Installation

The M-MCR-01 is shipped with nine (9) black rubber feet for optional installation on a table or other flat, stable surface. When installing on a table top, remove the rubber feet from the card and place them evenly spaced on the bottom of the chassis. The M-MCR-01 must be installed in a well-ventilated area.

Rack Installation

The M-MCR-01 ships with four (4) attachment screws for installation in a standard rack.

Warning: Take care to mount the M-MCR-01 so that it will not fall. Failure to observe this warning could result in an injury or damage to the equipment.

Caution: Follow the rack manufacturer's recommendation for mounting the M-MCR-01 into the rack.

Caution: Ensure that proper airflow around the M-MCR-01 is maintained.

Safety Instructions for Rack Mount Installations

The instructions below (or similar) are intended for rackmount installation environments:

1. Elevated Operating Ambient: if installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may exceed room ambient. Install the equipment in an environment compatible with the maximum ambient temperature (Tma) specified.

2. Reduced Air Flow: install the equipment in a rack so that the amount of air flow required for safe operation is not compromised.

3. Mechanical Loading: Mount the equipment in the rack so that a hazardous condition does not occur due to uneven mechanical loading (weight distribution/rack balance).

4. Circuit Overloading: consider the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Consider all equipment nameplate ratings when addressing this concern.

5. Reliable Earthing: maintain reliable earthing of rack-mounted equipment; pay particular attention to supply connections other than direct connections to the branch circuit (e.g., use of power strips).
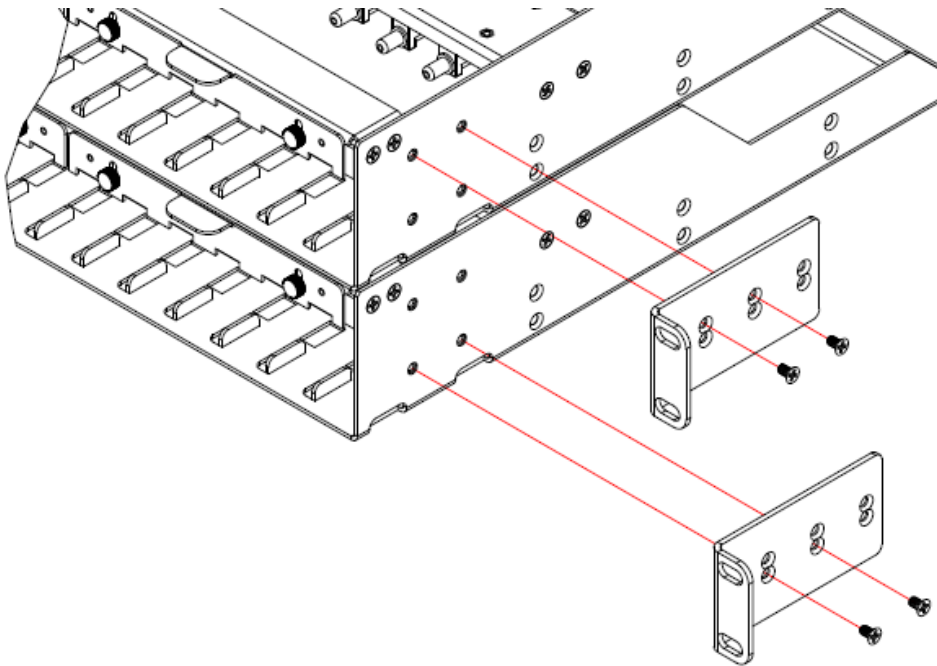
Mount One M-MCR-01 into a Rack

The M-MCR-01 is 1-1/2 U high, and you can use 2 RU to rack-mount a single chassis, or use 3 RU to rack-mount two M-MCR-01 chassis as follows:

1. Locate four (4) screws (provided) and optional clip-nuts (not provided) for each M-MCR-01 Media Converter Rack.

2. Carefully align the M-MCR-01 at a level position between the rack mounting rails as shown on the next page.

3. Install two (2) screws through the right front bracket and two (2) screws through the left front bracket; use the clip nuts to secure the M-MCR-01 to the rack.

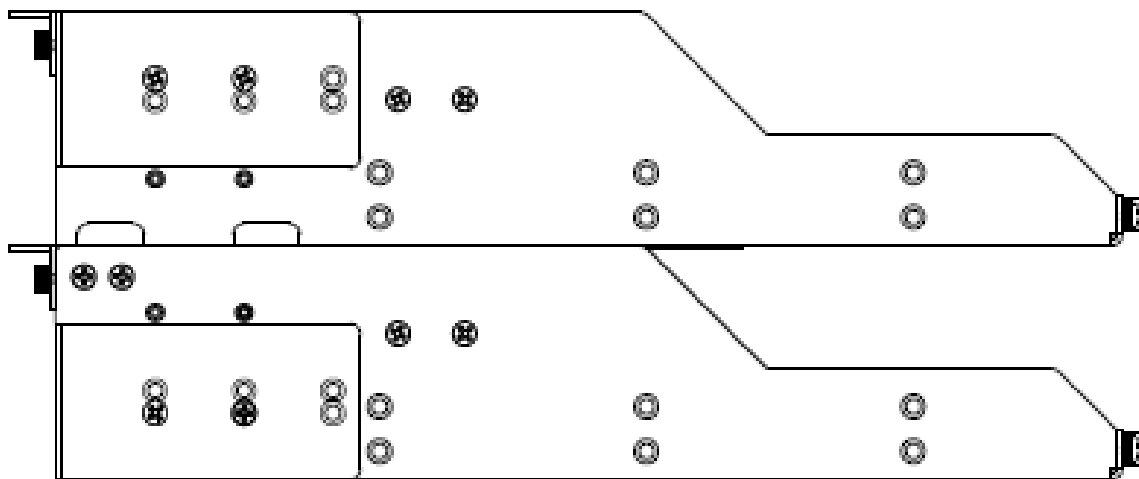## Mount Two M-MCR-01s into a Rack

To mount two M-MCR-01 units in three RU of rack space:

1. Locate four (4) screws (provided) and optional clip-nuts (not provided) for each M-MCR-01 Media Converter Rack.

2. Carefully align the M-MCR-01 at a level position between the rack mounting rails as shown below.
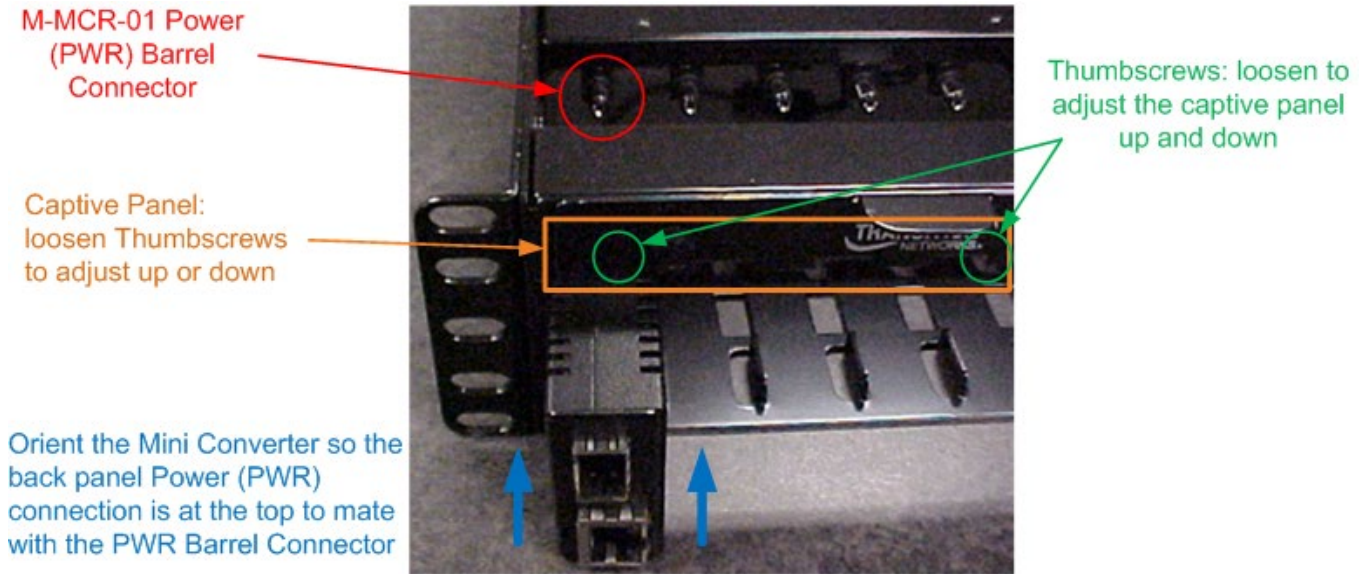

3. Install two (2) screws through the right front bracket and two (2) screws through the left front bracket. Optionally, use the clip nuts to secure the M-MCR-01 to the rack.

    Note: use the top holes / screws to mount the top unit and use the bottom holes / screws to mount the bottom unit. The two mounted M-MCR-01 units should look like this:
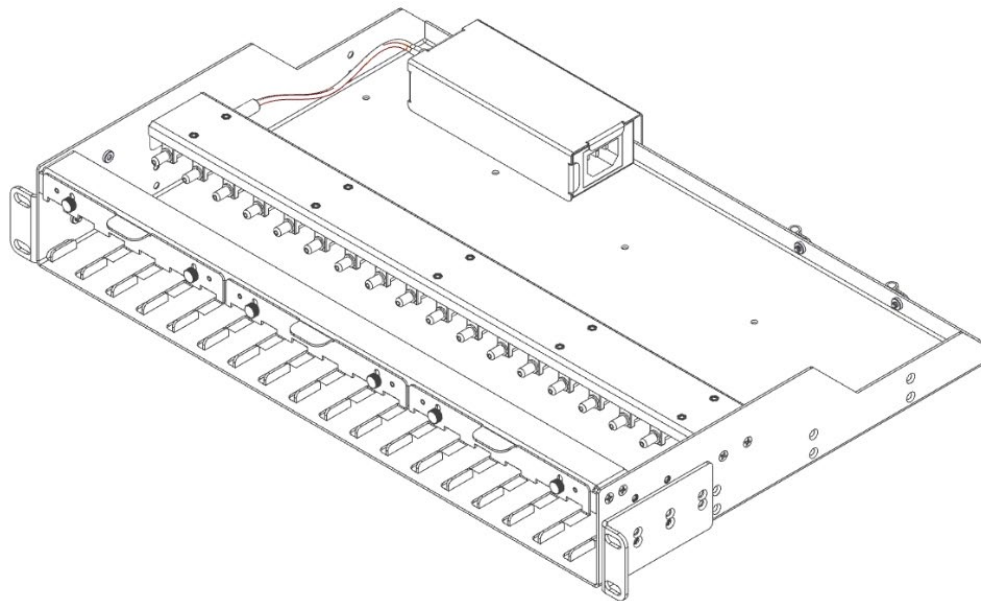
Install Media Converters into the M-MCR-01

1. Position the media converter in the M-MCR-01 as shown below and then carefully slide it into the slot.

M-MCR-01 Power (PWR) Barrel Connector

Thumbscrews: loosen to adjust the captive panel up and down

Captive Panel: loosen Thumbscrews to adjust up or down

Orient the Mini Converter so the back panel Power (PWR) connection is at the top to mate with the PWR Barrel Connector

2. If desired, slide the captive panel down to secure the bank of six media converters (optional).
3. Tighten the lock-down bars (captive panel fastener) located directly above the bank of threee media converter to secure it to the M-MCR-01.

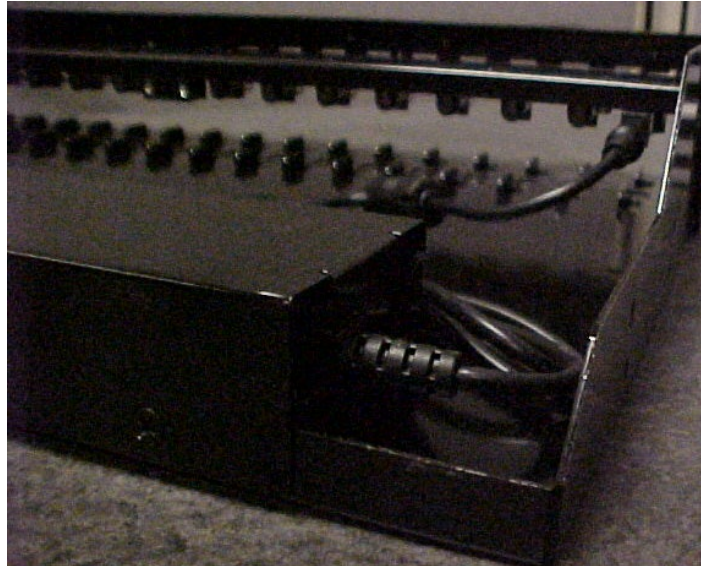## *Mount Power Supply to the M-MCR-01*

The M-MCR-01 ships from the factory with the Power Supply attached to the M-MCR-01 chassis.
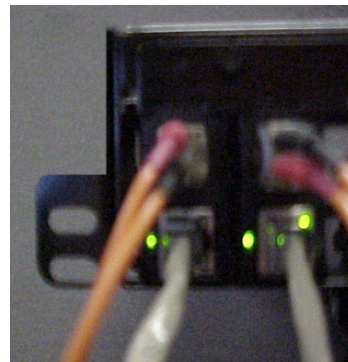
Connect Power to the M-MCR-01

Caution: Make sure that the M-MCR-01 will not overload the circuit used to supply power. See the

Technical Specifications section on page 9 for current and power maximums.

⚠️ **Warning**: Make sure that the M-MCR-01 is properly grounded. Failure to observe this warning could result in an electrical shock.

1. Insert the male end of the power cord into the M-MCR-01 Input Power (PWR) Barrel Connector.

2. If desired, use the Cable Clamps to restrain the Power Cord (optional).

3. Insert the other end of the Power Cord into a live AC wall outlet.

4. Verify that the media converter front panel Power LED lights. The LEDs vary between mini media converter models. A "generic" and a model-specific set of front panels are shown below. See the related media converter user guide for LED details.

Technical Specifications

M-MCR-01 Specs

The M-MCR-01 was designed to meet the following specifications.

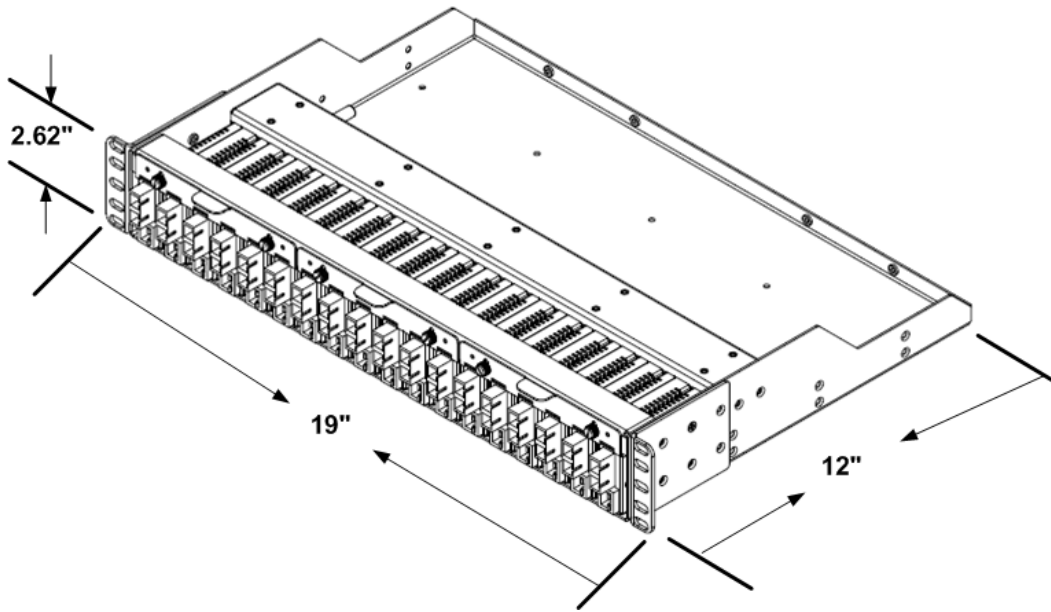|	
Standards	N/A
Status LEDs	Power: Power supply LED, ON = Lit for normal operation
Power Consumption	N/A
Regulatory Compliance	N/A
Dimensions:	17.3 x 12 x 2.6 inches (W x D x H)
Weight:	7.35 lbs (3.32 Kg (M-MCR-01 with power supply and cord)
Shipping Weight:	7.4 lbs. [3.35 kg]
MTBF*	MTBF for the mini chassis – 700,000 hours
	MIL-HDBK-217F @ 25C
Operating Temp:	0ºC to +50ºC
Storage Temp:	-40ºC to 85ºC
Humidity:	5%– 95% non-condensing
Altitude:	0 – 10,000 feet
Warranty:	Lifetime limited warranty

Power Supply Specs

Power is supplied from a +12VDC, IEC, -30̊ C to 50̊ C:60w, -30̊ C to 70̊ C:30w, B connector source as described below:
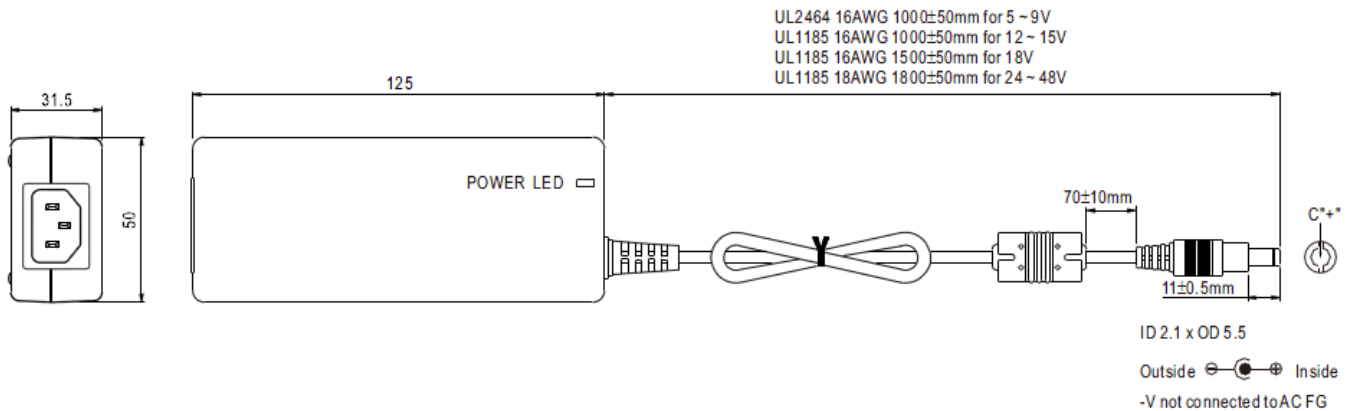
Input Range:	90 - 264 VAC
Output Voltage:	12 V
Output Current:	0 - 5 A
Max. output:	60 W
Output type:	Single
Output description:	12V5A
Power supply type:	AC/DC power supply
Enclosure type:	Adaptor
RoHS	Compliant
Weight:	10.758 oz.
MTBF:	709.7K Hrs. min. MIL-HDBK-217F (25̊C)
Protection:	Short circuit, Overload, Over voltage, Over temperature

Dimensions

M-MCR-01 Dimensions: 2.62" H x 19" W x 12" D (66.54 mm H x 482.59 mm W x 304.79 mm D).

Power Supply Dimensions: 125 x 50 x 31.5mm (LxWxH)

Compliance Information

Declaration of Conformity

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

Declares that the product: Media Converter Rack Model M-MCR-01

Conform to the following Product Regulations:
EN 55022: 2006 Class A; EN 55024:1998+A1:2001+A2:2003, IEC 60950-1:2005,
C-UL Listed, CE Mark

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: July 7, 2022
Signature: *Fathi Hakam*
Full Name: Fathi Hakam
Position: Vice President of Engineering

NDAA, RoHS, REACH and WEEE Compliance

See https://www.lantronix.com/legal/rohs/

Trade Agreement Act (TAA) Compliant Products

See https://www.lantronix.com/legal/rohs/taa-compliant-products/

Related Manuals

A printed Documentation Postcard is shipped with each Lantronix device. A substantial set of technical
documents, white papers, case studies, etc. are available on the Lantronix web site at
https://www.lantronix.com/products-class/sfps/.

The related manuals are listed below.

- M-E-ISW-FX-01-AC User Guide, 33492
- M-E-ISW-FX-01 User Guide 33462
- M/E-PSW-FX-02 User Guide, 33487
- M/GE-PSW-xxx-01 User Guide, 33398
- M/E-TX-FX-01 User Guide, 33517

For Additional Information

Check the Lantronix web site for the latest Features, Specs, Accessories, SKUS, and Support Files.

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