Moxa Fiber Optic Switch Configuration

Overview

Moxa Technologies TCF-142 Series Quick Installation Ring Mode To allow one half-duplex serial device to communicate with multiple half-duplex devices conne.

Key Takeaways

Moxa fiber optic switches can be configured via web interface, console, or telnet, with proper IP setup, serial-to-fiber conversion, and optional ring or bypass modes for network reliability.

Physical Setup

Connect Fiber and Ethernet Ports: For TCF-142 series converters, connect the Tx port of one unit to the Rx port of the neighboring unit. Ensure the fiber type matches the model: multi-mode (up to 5 km) or single-mode (up to 40 km) for TCF-142-M or TCF-142-S, respectively. For OBU-102 bypass units, connect the inline ports to the local switch and the network ports to remote switches.

Power Supply: Ensure the switch or converter is powered correctly. OBU-102 units should share the same power source as the local switch to enable automatic bypass during power loss. Mounting: DIN-rail or wall mounting is supported.

Follow the manual for proper screw placement and spacing to secure the unit.

Serial-to-

Fiber Configuration (TCF-142)Select Serial Interface: Configure the DIP switches to choose RS-232, RS-422, or RS-485. Only one interface can be active at a time. Ring Mode: For half-duplex devices in a fiber ring, set DIP switch SW4 to “On” to enable ring mode.

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Ensure the total ring length is under 100 km. Reverse Power Protection: The converter automatically detects polarity to prevent damage from incorrect power connections.

I

P and Network Configuration (Managed Switches)Access Methods: Use RS-232 console, web interface, or telnet to configure the switch.

Default I

P: Moxa switches typically use 192. 168. 127.

253 (or 192. 168. 126.

253 for OOBM/MGMT port) with subnet mask 255. 255. 255.

0. Web Interface Login: Connect your computer to the same subnet, open a browser, and navigate to the default IP. Use the default credentials: username admin and password admin.

Layer 3 Configuration: For MRX series, configure IP addresses, routing, and ARP tables to enable Layer 3 switching using IP addresses instead of MAC addresses. Reliability FeaturesOBU-102 Bypass: Automatically forwards traffic to remote switches if local switch power is lost. Fiber Advantages: Immune to EMI/RFI, electrically insulated, secure from tapping, and resistant to environmental conditions.

Summary

To configure a Moxa fiber optic switch: Connect fiber and Ethernet ports according to the model. Power the device and mount securely. Configure serial interfaces and ring mode if using TCF-142 converters.

Set I

P addresses and access the web interface for managed switches. Enable reliability features like bypass or ring mode to ensure network continuity. Following these steps ensures proper operation, extended communication distance, and network resilience for industrial or enterprise fiber optic networks.

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Article Content

Moxa Technologies TCF-142 Series Quick Installation

Ring Mode To allow one half-duplex serial device to communicate with multiple half-duplex devices connected to a fiber ring, you should configure the TCF-142 for

Fiber Optic Adapters and Bypass Units

Moxa''s fiber optic adapters and fiber bypass units are optional accessories that provide more fiber optic connection options for Moxa''s industrial Ethernet switches.

MOXA TCF-142 Serial to Fiber Converter Quick Installation Guide

Quick Installation Guide for MOXA TCF-142-M, TCF-142-S serial-to-fiber converters. Extend serial transmission up to 40km (single-mode) or 5km (multi-mode).

Microsoft Word

The Single-Strand Fiber Converter (ME60) is designed with an optic Wavelength Division Multiplexing (WDM) technology that transports bi-directional full duplex signals over a single- strand fiber cable

Moxa MXconfig Configuration Software Tool

Moxa''s MXconfig is a comprehensive Windows-based utility that is used to install, configure, and maintain multiple Moxa devices on industrial networks.

PT-7528 Series (8/12/16/20-Port Fiber Models) Quick Installation Guide

PT-7528 series switches feature autonegotiation, auto- -polarity, and auto-crossover functions. For high EMC environment applications, we suggest using shielded twisted-pair cables to avoid EMC

TCF-142-M, TCF-142-S RS-232/422/485 to Fiber Converter QIG

TCF-142 fiber converters are easy to set up and use. The serial terminal block of one of the converters connects to your computer, the serial terminal block of the other converter connects to your serial

Moxa Managed Switch MRX (v1.x) Layer 2 User Manual

Read this user''s manual to learn how to connect your Moxa switch with various interfaces and how to configure all settings and parameters via the user-friendly web interface.

Moxa Technologies TCF-142-S Quick Installation Manual

View and Download Moxa Technologies TCF-142-S quick installation manual online. RS-232/422/485 to Fiber Converter. TCF-142-S media converter pdf manual

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OBU-102 Quick Installation Guide

Overview The OBU-102 series is an industrial optical fiber bypass unit installed to protect a 100M/1G/10G fiber optical network from large-scale failure resulted during power outage or network

TSN-G5008 Series

The TSN-G5008 Series switches are ideal for making manufacturing networks compatible with the vision of Industry 4.0. The switches are equipped with 8 Gigabit Ethernet ports and up to 2 fiber-optic ports.

Moxa Managed Ethernet Switch Redundancy Protocol (UI 2.0) User

To configure the Ring Coupling function for a “Turbo Ring” ring, select two switches (e.g., Switch A and B in the above figure) in the ring, and another two switches in the adjacent ring (e.g., Switch C and D).

EDS-518E Series

The EDS-518E standalone, compact 18-port managed Ethernet switches have 4 combo Gigabit ports with built-in RJ45 or SFP slots for Gigabit fiber-optic communication. The 14 fast Ethernet ports have

Moxa Managed Ethernet Switch (UI_2.0_FW_5.x) User Manual

In this chapter, we explain how to access a Moxa switch''s various configuration, monitoring, and management functions. The functions can be accessed by USB console, Telnet console, and web

MOXA TECHNOLOGIES EDS-518E USER MANUAL

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Moxa Managed Switch MRX (v1.x) Layer 2 User Manual

Thank you for purchasing Moxa''s managed switch. Read this user''s manual to learn how to connect your Moxa switch with various interfaces and how to configure all settings and parameters via the

Moxa Technologies TCF-142 Series Quick Installation

Summary of Contents for Moxa Technologies TCF-142 Series Page 1 To avoid problems when setting up a fiber ring, each TCF-142 unit TCF-142 series (Rev.

Moxa Technologies Managed Ethernet Switch/Extender

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