

ESN on the optical module



Overview

Viewing Information About the Optical Transceiver With the display esn interface commands, you can query the ESN of the optical transceiver. Run the displa.

Key Takeaways

The ESN (Electronic Serial Number) is a unique identifier stored in an optical module's EEPROM, used to identify, track, and manage the module within a network system. What ESN Represents

The ESN is essentially a unique serial number assigned to each optical module during manufacturing. It allows network devices and administrators to:

- Identify the module's manufacturer, model, and production batch.
- Track module usage and lifecycle for maintenance or replacement.
- Ensure compatibility and interoperability with host devices.
- Support inventory management and network diagnostics.

How ESN is Stored and Accessed

Optical modules, such as SFP, SFP+, QSFP, and CFP, include an EEPROM (Electrically Erasable Programmable Read-Only Memory) that stores the ESN along with other critical information like:

- Vendor name and part number
- Supported data rates and wavelengths

- Digital Diagnostic Monitoring (DDM/DOM) parameters, including temperature, supply voltage, transmit/receive optical power, and laser bias current. The ESN can be read by the host device through the module's management interface, typically using an I²C interface defined in standards like SFF-8472. This allows network management software to monitor module health and verify authenticity.

Practical Uses of ESN

- Network Management: ESNs help administrators identify which modules are installed in which ports, simplifying troubleshooting and configuration.
- Diagnostics and Monitoring: Combined with DDM, the ESN allows correlation of performance data to a specific module.
- Inventory Control: ESNs enable tracking of modules across multiple sites, ensuring proper replacement and warranty management.
- Security and Compliance: Unique ESNs prevent unauthorized or counterfeit modules from being used in critical network infrastructure.

Summary

The ESN is a critical identifier for optical modules, stored in the module's EEPROM, and is used for identification, monitoring, and management within network systems. It works alongside other diagnostic and operational data to ensure reliable and secure operation of optical transceivers in high-speed networks .

Article Content

Viewing Information About the Optical Transceiver

With the display esn interface commands, you can query the ESN of the optical transceiver. Run the display esn interface command

Displaying Hardware Information on Huawei Routers

The inventory information such as serial number, product code,optical module,device, power,voltage,temperature,fan, CPU and

Huawei optical module SN verification

Run the display esn interface command to check whether the optical module is a Huawei-certified one. If the Certified field is

Cisco Optics | Transform Your Network

Get the highest quality, performance-leading optical transceivers for any network architecture. Find the transceiver model to fit your

Optical module

The main trade show for the large optical module industry is the Optical Fiber Conference (OFC), that is held annually in southern

Energi Savr Node PRO LED+ Phase Adaptive Power Module

Energi Savr Node PRO LED+ Phase Adaptive Power Module The Energi Savr Node (ESN) family is a group of modular products for

Understanding Optical Modules

This document explains optical modules, their types, and applications, providing a comprehensive understanding of their functionality

PRO LED+ Phase Adaptive SPEC (3691158)

PRO LED+ Phase Adaptive Power Module The Energi Savr Node (ESN) family is a group of modular products for the control of

Energi Savr Node 0 -10 V

Energi Savr Node 0 -10 V- Power Module The Energi Savr Node (ESN) family is a group of modular products for the control of

Before You Start

If Certified is YES, and VendorName is huawei in the display esn interface command output, the optical module has been certified by

Cisco Transceiver Modules

Cisco Transceiver Modules - Learn product details such as features and benefits, as well as hardware and software specifications.

Optical Transceiver Market Size, Share, Analysis 2030

The global Optical Transceiver Market size in terms of revenue was estimated to be worth \$13.6 billion in 2024 and is poised to reach

Contact Us

Continue your research online:

Website: <https://coetzerinvestments.co.za>

Technical inquiry: <https://coetzerinvestments.co.za/contact.html>

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

