

# Cisco Embedded Service 9300 Series Switches Software Configuration Overview

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## General Description

The Cisco ESS 9300 is a embedded Ethernet switch card. The compact design simplifies integration and offers system integrators the ability to use the Cisco ESS 9300 in a wide variety of applications. The Cisco ESS 9300 consists of one switch card.

The Cisco ESS-9300-10X-E board supports up to 10 ports of 10GE fiber and includes a Gig0/0 management port. The management port is active in ROMMON mode (when IOS-XE is not running). The board has a thermal power consumption of 35 Watts.

Cisco IOS XE Release 17.17.1 introduces the Cisco ESS-9300-8X16T of the Curtiss-Wright VPX3-623.

The Cisco ESS-9300-8X16T of the Curtiss-Wright VPX3-623 supports up to eight 10GE interfaces. By default, two 10GE interfaces are configured in backplane mode, while six are in optical mode. It does not include a management port. The board has a thermal power consumption of 35 Watts.



**Important** The Cisco ESS-9300-8X16T of the Curtiss-Wright VPX3-623 is exclusively available from Curtiss-Wright as a component of the Curtiss-Wright VPX3-623. It is never sold alone through any Cisco sales channels.

There are no cooling plates sold with the switch. It is up to the integrator to design a thermal solution.

This table highlights the hardware map between Cisco ESS-9300-8X16T of the Curtiss-Wright VPX3-623 and the Cisco ESS-9300-10X-E:

*Table 1: Key Features*

| Category | Features | Cisco ESS-9300-10X-E | Cisco ESS-9300-8X16T of the Curtiss-Wright VPX3-623 |
|---|---|---|---|
| Hardware | Small form-factor with mezzanine card | Supported with 4.595 in.(H) x 2.904 in.(W) | Supported with 5.1 in.(H) x 2.9 in.(W) |
| | Ethernet management port | Optional | Not supported |
| | Optical ports | 10X10 GE optical ports with Enhanced Small Form-Factor Pluggable (SFP+). | • 8x10GE interfaces. By default, 2x10GE interfaces are configured in backplane mode and 6x10GE interfaces in the optical mode.<br>• 10X1 GE Copper ports |
| | ARM Quad-Core A53 | Supported | Supported |
| | Alarms | • Two—input<br>• One— output | • Four—input<br>• One— output |
| | 4GB DDR4 DRAM with ECC | Supported | Supported |
| | Eight GB onboard eMMC flash storage (2.5 GB usable space). | Supported | Supported |
| Software | IOS-XE, Network Essentials and Network Advantage | Supported | Supported |
| Industrial temperature | -40°C to +85°C | Supported | Supported |

Few of the key hardware features of the Cisco ESS 9300 series switch are:

- Alarms
- ALT Boot
- Backplane Ports
- Factory reset
- Generic Online Diagnostics (GOLD)
- Intelligent Platform Management Interface (IPMI)
- Optical ports
- Power-on Self Test (POST)

- Zeroization

The port mapping for the hardware device to the IOS-XE device is:

*Table 2: Device Port Mapping between Cisco ESS 9300-10X-E and Cisco ESS-9300-8X16T of the Curtiss-Wright VPX3-623*

| Device Port | Cisco ESS 9300 (ESS 9300-10X-E) | Cisco ESS 9300 (ESS-9300-8X16T of the Curtiss-Wright VPX3-623) |
|---|---|---|
| Management Port | GigabitEthernet0/0 | Not supported |
| Interfaces | TenGigabitEthernet1/1 - 1/10 | • TenGigabiEthernet1/1 - 1/8<br>• Gigabit Ethernet Ports 2/1-2/10 |
| USB | usbflash0: | usbflash1: |

# Finding Feature Information

Your software release may not support all the features documented in this module. For the latest caveats and feature information, see Bug Search Tool and the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the feature information table at the end of this module.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to http://www.cisco.com/go/cfn. An account on Cisco.com is not required.

**Note** Cisco ESS-9300-8X16T of the Curtiss-Wright VPX3-623 doesn't support:

- **SD card**
- Express button setup

# SFP Support

Both 100BASE-X and 1000BASE-X SFP transceivers are supported. Supported SFP and SFP+ Modules, on page 4 lists the specific SFP transceivers and their characteristics.

**Note**

- SFP is not supported on the Cisco ESS-9300-8X16T of the Curtiss-Wright VPX3-623.
- LRM optics are not supported since the SFP is direct driven from the Cisco ASIC.

# Supported SFP and SFP+ Modules

*Table 3: Supported Modules*

| Part Number | Specification | SFP Type | Max Distance | Cable Type | Temp Range | DOM Support |
|---|---|---|---|---|---|---|
| GLC-SX-MM-RGD= | 1000BASE-SX | GE | 550m | MMF | IND | Yes |
| GLC-LX-SM-RGD= | 1000BASE-LX/LH | GE | 550m/10km | MMF/SMF | IND | Yes |
| GLC-SX-MMD= | 1000BASE-SX | GE | 550m | MMF | EXT | Yes |
| GLC-LH-SMD= | 1000BASE-LX/LH | GE | 550m/10km | MMF/SMF | EXT | Yes |
| GLC-BX-D= | 1000BASE-BX10 | GE | 10km | SMF | COM | Yes |
| GLC-BX-U= | 1000BASE-BX10 | GE | 10km | SMF | COM | Yes |
| CWDM-SFP-xxxx= (8 freq) | CWDM 1000BASE-X | GE | | SMF | COM | Yes |
| DWDM-SFP-xxxx= (40 freq) | DWDM 1000BASE-X | GE | | SMF | COM | Yes |
| SFP-GE-S= | 1000BASE-SX | GE | 550m | MMF | EXT | Yes |
| SFP-GE-L= | 1000BASE-LX/LH | GE | 550m/10km | MMF/SMF | EXT | Yes |
| GLC-SX-MM= | 1000BASE-SX | GE | 550m | MMF | COM | No |
| GLC-LH-SM= | 1000BASE-LX/LH | GE | 550m/10km | MMF/SMF | COM | No |
| GLC-TE= | 1000BASE-T | GE | 100m | Copper | EXT | N/A |
| GLC-T= | 1000BASE-T | GE | 100m | Copper | COM | N/A |
| SFP-10G-BXD-I= | 10GBASE-BX10 | 10GE | 10km | SMF | IND | Yes |
| SFP-10G-BXU-I= | 10GBASE-BX10 | 10GE | 10km | SMF | IND | Yes |
| SFP-10G-SR-X= | 10GBASE-SR | 10GE | 400m | MMF | EXT | Yes |
| SFP-10G-LR-X= | 10GBASE-LR | 10GE | 10km | SMF | EXT | Yes |
| SFP-10G-SR= | 10GBASE-SR | 10GE | 400m | MMF | COM | Yes |
| SFP-10G-LR= | 10GBASE-LR | 10GE | 10km | SMF | COM | yes |
| GLC-T-RGD= | 1000BASE-T | GE | 100m | Copper | IND | N/A |
| SFP-H10GB-CUxM= | 10G Passive Twinax | 10GE | 1m/3m/5m | Twinax | COM | N/A |
| SFP-H10GB-ACUxM= | 10G Active Twinax | 10GE | 7m/10m | Twinax | COM | N/A |