Cisco Embedded Service 9300 Series Switches Software Configuration Overview

This section contains the following:

General Description

The Cisco ESS 9300 is a Small Form Factor (SFF) 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 ESS-9300-10X-E board supports up to 10 ports of 10 GE fiber, as well as the gig0/0 management port. The management port is active in ROMMON mode (IOS-XE not running). Thermal power is 35 Watts.

☞

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

Some of the key hardware features are:

- Small form factor
- 10 Optical 10G
- Software: IOS-XE, Network Essentials and Network Advantage
- Industrial temperature: -40°C to +85°C
- ARM Quad-Core A53
- 4GB DDR4 DRAM memory capacity with ECC
- About 2.5GB usable eMMC flash

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

Table 1: Device Port Mapping

Device Port	IOS-XE Device
Management Port	GigabitEthernet0/0
Gigabit Ethernet Ports 1-10	TenGigabitEthernet1/1 - 1/10
USB	usbflash0:
mSATA	msata:

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.

SD Support

There is one Cisco SD card that has been tested and is recommended, the SD-IE-4GB. If the end user or system integrator chooses to use a 3rd party device, it may work for their application and to their satisfaction. However the end user or system integrator is solely responsible for testing and ensuring proper operation.

The message that displays when a different SD card is installed is:

```
WARNING: Non-IT SD flash detected. Use of this card during normal operation can impact and
severely degrade performance of the system. Please use supported SD flash cards only.
```

You can find Cisco's policy on Third Party Components here:

https://www.cisco.com/c/en/us/products/warranties/warranty-doc-c99-740959.html#_Toc3320258

SFP Support

Both 100BASE-X and 1000BASE-X SFP transceivers are supported. Supported SFP and SFP+ Modules, on page 3 lists the specific SFP transceivers and their characteristics.

Note LRM optics are not supported since the SFP is direct driven from the Cisco ASIC.

Supported SFP and SFP+ Modules

Table 2: 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