OmniSwitch Transceivers Guide

Alcatel·Lucent

This user guide contains SFP and XFP transceiver specifications and compatibility information for the OmniSwitch 6800, 6850 and 9000 Series of switches.
The information described in this guide is subject to change without notice.

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Contents

About This Guide

This *OmniSwitch Transceivers Guide* provides specifications and compatibility information for the supported OmniSwitch SFP and XFP transceivers.

Supported Platforms

This information in this guide applies to the following products:

- OmniSwitch 6800 Series
- OmniSwitch 6850 Series
- OmniSwitch 9000 Series

Unsupported Platforms

The information in this guide does not apply to the following products:

- OmniSwitch (original version with no numeric model name)
- OmniSwitch 6600 Family
- OmniSwitch 7700/7800
- OmniSwitch 8800
- Omni Switch/Router
- OmniStack
- OmniAccess

Who Should Read this Manual?

The audience for this user guide is network administrators and IT support personnel who need to provide network connectivity using SFP or XFP transceivers on an OmniSwitch.

When Should I Read this Manual?

Read this guide as soon as you are ready to integrate your OmniSwitch into your network and you are ready to provide connectivity using the supported transceivers. You should have already stepped through the first login procedures and read the brief software overviews in the *OmniSwitch 6800 Family Getting Started Guide*, *OmniSwitch 6850 Series Getting Started Guide*, or *OmniSwitch 9000 Series Getting Started Guide*.

What is in this Manual?

This guide includes information about the supported OmniSwitch transceivers.

- SFP and XFP specifications

- SFP and XFP compatibility information

What is Not in this Manual?

Procedures for switch management methods, such as CLI, web-based (WebView or OmniVista) or SNMP, are outside the scope of this guide.

For information on WebView and SNMP switch management methods consult the *OmniSwitch Switch Management Guide.* Information on using WebView and OmniVista can be found in the context-sensitive on-line help available with those network management applications.

This guide is designed to provide transceiver specification and compatibility information only and is not intended as a reference for any CLI commands or configuration information. Refer to the Documentation Roadmap for a list of available user guides.

How is the Information Organized?

Chapters in this guide are broken down by transceiver type, SFP or XPF. Additional sub-sections are provided for the various types of SFP transceivers.

Specification Information. Each transceiver has an associated table providing individual specifications for all supported transceivers.

Compatibility Information. A compatibility chart is provided for each transceiver specifying which modules or switch the transceiver is supported on.

Documentation Roadmap

The OmniSwitch user documentation suite was designed to supply you with information at several critical junctures of the configuration process. The following section outlines a roadmap of the manuals that will help you at each stage of the configuration process. Under each stage, we point you to the manual or manuals that will be most helpful to you.

Stage 1: Using the Switch for the First Time

Pertinent Documentation: *Getting Started Guide*
                                            Release Notes

A hard-copy *Getting Started Guide* is included with your switch; this guide provides all the information you need to get your switch up and running the first time. It provides information on unpacking the switch, rack mounting the switch, installing NI modules, unlocking access control, setting the switch's IP address, and setting up a password. It also includes succinct overview information on fundamental aspects of the switch, such as hardware LEDs, the software directory structure, CLI conventions, and web-based management.

At this time you should also familiarize yourself with the Release Notes that accompanied your switch. This document includes important information on feature limitations that are not included in other user guides.

Stage 2: Gaining Familiarity with Basic Switch Functions

Pertinent Documentation: *Hardware Users Guide*
                                            Switch Management Guide
                                            Transceivers Guide

Once you have your switch up and running, you will want to begin investigating basic aspects of its hardware and software. Information about switch hardware is provided in the *Hardware Guide*. This guide provide specifications, illustrations, and descriptions of all hardware components, such as chassis, power supplies, Chassis Management Modules (CMMs), Network Interface (NI) modules, and cooling fans. It also includes steps for common procedures, such as removing and installing switch components.

The *Switch Management Guide* is the primary users guide for the basic software features on a single switch. This guide contains information on the switch directory structure, basic file and directory utilities, switch access security, SNMP, and web-based management. It is recommended that you read this guide before connecting your switch to the network.

Stage 3: Integrating the Switch Into a Network

Pertinent Documentation: *Network Configuration Guide*
                                   Advanced Routing Configuration Guide

When you are ready to connect your switch to the network, you will need to learn how the OmniSwitch implements fundamental software features, such as 802.1Q, VLANs, Spanning Tree, and network routing protocols. The *Network Configuration Guide* contains overview information, procedures, and examples on how standard networking technologies are configured in the OmniSwitch.

The *Advanced Routing Configuration Guide* includes configuration information for networks using advanced routing technologies (OSPF and BGP) and multicast routing protocols (DVMRP and PIM-SM).

Anytime

The *OmniSwitch CLI Reference Guide* contains comprehensive information on all CLI commands supported by the switch. This guide includes syntax, default, usage, example, related CLI command, and CLI-to-MIB variable mapping information for all CLI commands supported by the switch. This guide can be consulted anytime during the configuration process to find detailed and specific information on each CLI command.

Related Documentation

The following are the titles and descriptions of all the related OmniSwitch 6800/6850/9000 user manuals:

- *OmniSwitch 6800 Family Getting Started Guide*

  Describes the hardware and software procedures for getting an OmniSwitch 6800 Family switch up and running. Also provides information on fundamental aspects of OmniSwitch software and stacking architecture.

- *OmniSwitch 6850 Series Getting Started Guide*

  Describes the hardware and software procedures for getting an OmniSwitch 6850 Series switch up and running. Also provides information on fundamental aspects of OmniSwitch software and stacking architecture.

- *OmniSwitch 6800 Family Hardware Users Guide*

  Detailed technical specifications and procedures for the OmniSwitch 6800 Family chassis and components. Also includes comprehensive information on assembling and managing stacked configurations.

- *OmniSwitch 6850 Series Hardware User Guide*

  Complete technical specifications and procedures for all OmniSwitch 6850 Series chassis, power supplies, and fans. Also includes comprehensive information on assembling and managing stacked configurations.

- *OmniSwitch 9000 Series Getting Started Guide*

  Describes the hardware and software procedures for getting an OmniSwitch 9000 Series up and running. Also provides information on fundamental aspects of OmniSwitch software architecture.

- *OmniSwitch 9000 Series Hardware Users Guide*

  Complete technical specifications and procedures for all OmniSwitch 9000 Series chassis, power supplies, fans, and Network Interface (NI) modules.

- *OmniSwitch CLI Reference Guide*

  Complete reference to all CLI commands supported on the OmniSwitch 9000 Series. Includes syntax definitions, default values, examples, usage guidelines and CLI-to-MIB variable mappings.

- *OmniSwitch 6800/6850/9000 Switch Management Guide*

  Includes procedures for readying an individual switch for integration into a network. Topics include the software directory architecture, image rollback protections, authenticated switch access, managing switch files, system configuration, using SNMP, and using web management software (WebView).

- *OmniSwitch 6800/6850/9000 Network Configuration Guide*

  Includes network configuration procedures and descriptive information on all the major software features and protocols included in the base software package. Chapters cover Layer 2 information (Ethernet and VLAN configuration), Layer 3 information (routing protocols, such as RIP), security options (authenticated VLANs), Quality of Service (QoS), and link aggregation.

- *OmniSwitch 6800/6850/9000 Advanced Routing Configuration Guide*

  Includes network configuration procedures and descriptive information on all the software features and protocols included in the advanced routing software package. Chapters cover multicast routing (DVMRP and PIM-SM), and OSPF.

- *OmniSwitch Transceivers Guide*

  Includes SFP and XFP transceiver specifications and product compatibility information.

- *Technical Tips, Field Notices*

  Includes information published by Alcatel-Lucent's Customer Support group.

- *Release Notes*

  Includes critical Open Problem Reports, feature exceptions, and other important information on the features supported in the current release and any limitations to their support.

User Manual CD

All user guides are included on the User Manual CD that accompanied your switch. This CD also includes user guides for other Alcatel-Lucent data enterprise products. In addition, it contains a stand-alone version of the on-line help system that is embedded in the OmniVista network management application.

Besides the OmniVista documentation, all documentation on the User Manual CD is in PDF format and requires the Adobe Acrobat Reader program for viewing. Acrobat Reader freeware is available at www.adobe.com.

Note. In order to take advantage of the documentation CD's global search feature, it is recommended that you select the option for *searching PDF files* before downloading Acrobat Reader freeware.

To verify that you are using Acrobat Reader with the global search option, look for the following button in the toolbar:

Note. When printing pages from the documentation PDFs, de-select Fit to Page if it is selected in your print dialog. Otherwise pages may print with slightly smaller margins.

Technical Support

An Alcatel-Lucent service agreement brings your company the assurance of 7x24 no-excuses technical support. You'll also receive regular software updates to maintain and maximize your Alcatel-Lucent product's features and functionality and on-site hardware replacement through our global network of highly qualified service delivery partners. Additionally, with 24-hour-a-day access to Alcatel-Lucent's Service and Support web page, you'll be able to view and update any case (open or closed) that you have reported to Alcatel-Lucent's technical support, open a new case or access helpful release notes, technical bulletins, and manuals. For more information on Alcatel-Lucent's Service Programs, see our web page at service.esd.alcatel-lucent.com, call us at 1-800-995-2696, or email us at support@ind.alcatel.com.

1 Small Form-Factor Pluggables (SFPs)

OmniSwitch Series switches use both copper-based and fiber-based optical Small Form Factor Pluggable (SFP) transceivers. SFPs are fully hot-swappable and are available for both short-reach and long-reach applications. Copper-based and fiber-based optical SFPs can be mixed on the same module.

In This Chapter

This chapter describes the technical specifications for all the OmniSwitch supported SFP transceivers. For additional details about OmniSwitch modules, see the appropriate *OmniSwitch Hardware Guide*.

SFP specifications in the chapter include:

- Gigabit Ethernet Transceivers. See "Gigabit Ethernet Transceivers" on page 1-3.

- Dual-Speed Ethernet Transceivers. See "Dual-Speed Ethernet Transceivers" on page 1-6.

- Bi-directional Ethernet Transceivers. See "Bi-directional 100 FX Ethernet Transceivers" on page 1-7.

- 100-FX Ethernet Transceivers. See "100 FX Ethernet Transceivers" on page 1-8.

- CWDM Gigabit Ethernet Transceivers. See "CWDM Gigabit Ethernet Transceivers" on page 1-10.

For information on installing and managing OmniSwitch hardware, see the appropriate *Hardware Guide*.

For information on OmniSwitch XFP compatibility, see "SFP Compatibility Matrix" on page 3-15.

SFP MSA Specification

The Small Form-Factor Pluggable (SFP) MSA (Multi Source Agreement) is a specification for a common interface for optical modular transceivers. The SFP connector consists of a 20-pin receptacle and an SFP housing cage. The connector provides the interface for the hot pluggable SFP module. Each SFP module contains a serial interface to provide identification information that describes the SFP capabilities, stand interfaces, manufacturer and other information.

For information on installing SFPs, refer to the documentation included with the transceiver.
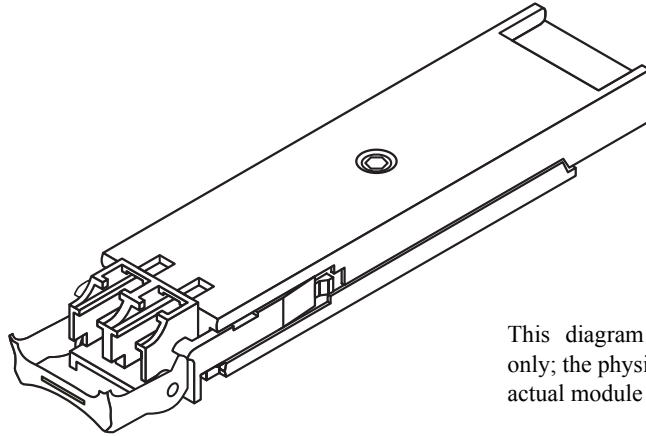
This diagram is a representation only; the physical appearance of the actual module may vary slightly.

Small Form Factor Pluggable (SFP)

Eye Safety

SFP transceivers are international Class 1 laser products and are eye-safe devices *when operated within the limits of manufacturers' specifications*. Operating SFP transceivers in a manner inconsistent with intended usage and specification may result in hazardous radiation exposure.

Gigabit Ethernet Transceivers

SFP-GIG-SX

1000Base-SX Gigabit Ethernet optical transceiver. Supports multimode fiber and uses an LC connector.

Connector Type	LC
Standards Supported	802.3z, SFP MSA
Connections Supported	1000Base-SX
Fiber Type	MMF
Wavelength	850 nm
Optical Power Output	-9.5 to -4 dBm
Receiver Sensitivity	-17 dBm
Transmission Distance	~300 m on 62.5/125μm ~550 m on 50/125μm
Maximum Power Output	3 mW
Maximum Pulse Duration	5 ns
Notes	

SFP-GIG-LX

1000Base-LX Gigabit Ethernet optical transceiver. Supports single mode fiber and uses an LC connector.

Connector types	LC
Standards supported	802.3z, SFP MSA
Connections supported	1000Base-LX
Fiber Type	SMF
Wavelength	1310 nm
Average Output Power	-9.5 to -3 dBm
Receiver Sensitivity	-20 dBm
Transmission Distance	~10 km
Maximum Power Output	3 mW
Maximum Pulse Duration	5 ns
Notes	

Gigabit Ethernet Transceivers (cont.)

SFP-GIG-LH70

1000Base-LH Gigabit Ethernet optical transceiver. Supports single mode fiber and uses an LC connector.

Connector Type	LC
Standards Supported	802.3z, SFP MSA
Connections Supported	1000Base-LH70
Fiber Type	SMF
Wavelength	1550 nm
Optical Power Output	0 to +5 dBm
Optical Power Input	-24 to -3 dBm
Transmission Distance	~70 km
Maximum Power Output	3 mW
Maximum Pulse Duration	5 ns
Notes	

SFP-GIG-LH40

1000Base-LH Gigabit Ethernet optical transceiver. Supports single mode and uses an LC connector.

Connector Type	LC
Standards Supported	802.3z, SFP MSA
Connections Supported	1000Base-LH40r
Fiber Type	SMF
Wavelength	1310 nm
Optical Power Output	0 to +5 dBm
Optical Power Input	-23 to -3 dBm
Transmission Distance	~40 km
Maximum Power Output	3 mW
Maximum Pulse Duration	5 ns
Notes	

Gigabit Ethernet Transceivers (cont.)

SFP-GIG-EXTND

Extended 1000Base-SX Gigabit Ethernet optical transceiver. Supports multimode fiber and uses an LC connector.

Connector Type	LC
Standards Supported	802.3z, SFP MSA
Connections Supported	1000Base-SX
Fiber Type	MMF
Wavelength	850 nm
Optical Power Output	0 to +5 dBm
Optical Power Input	-23 to -3 dBm
Transmission Distance	~2 km
Maximum Power Output	3 mW
Maximum Pulse Duration	5 ns
Notes	

SFP-GIG-T

1000Base-T Gigabit Ethernet Transceiver. Supports copper cabling.

Connector Type	RJ-45
Standards Supported	802.3z, SFP MSA
Connections supported	1000Base-T
Cable Type	CAT5, CAT5e, CAT6
Transmission Distance	~100 m
Notes	SFP only works in 1000 Mbit/s speed and full-duplex mode

Dual-Speed Ethernet Transceivers

SFP-DUAL-MM

Dual Speed 100Base-FX or 1000Base-LX Ethernet optical transceiver. Supports multimode fiber and uses an LC connector.

Connector Type	LC
Standards Supported	802.3z, 802.3ah, SFP MSA
Connections Supported	100Base-FX, 1000Base-LX
Fiber Type	MMF
Wavelength	1310 nm
Average Power Output	100Base-FX: -20 to -14 dBm 1000Base-LX: -11.5 to -3 dBm
Receiver Sensitivity	100Base-FX: -28 dBm 1000Base-LX: -22 dBm
Transmission Distance	550 m at 1000 Mbps 2 km at 100 Mbps
Maximum Power Output	3 mW
Maximum Pulse Duration	5 ns
Notes	

SFP-DUAL-SM10

Dual Speed 100Base-FX or 1000Base-X Ethernet optical transceiver. Supports single mode fiber and uses LC connector.

Connector Type	LC
Standards Supported	802.3z, 802.3ah, SFP MSA
Connections Supported	100Base-FX, 1000Base-LX
Fiber Type	SMF
Wavelength	1310 nm
Average Power Output	100Base-FX: -15 to -8 dBm 1000Base-LX: -9.5 to -3 dBm
Receiver Sensitivity	100Base-FX: -28 1000Base-LX: -22
Transmission Distances	10 km
Maximum Power Output	3 mW
Maximum Pulse Duration	5 ns
Notes	

Bi-directional 100 FX Ethernet Transceivers

SFP-100-BX20LT

100Base-BX SFP optical transceiver with an SC type interface. This bi-directional transceiver is designed for use over single mode fiber on a single strand.

Connector Type	SC
Standards Supported	802.3ah, SFP MSA, ITU-T G.983
Connections Supported	100Base-BX
Fiber Type	SMF
Wavelength	Transmit: 1550 mm Receive: 1310 nm
Average Power Output	-14 to -8 dBm
Receiver Sensitivity	-32 dBm
Transmission Distance	~20 km
Maximum Power Output	3 mW
Maximum Pulse Duration	5 ns
Notes	Designed for use with SFP-100-BX20NU

SFP-100-BX20NU

100Base-BX SFP optical transceiver with an SC type interface. This bi-directional transceiver is designed for use over single mode fiber on a single strand.

Connector Type	SC
Standards Supported	802.3ah, SFP MSA, ITU-T G.983
Connections Supported	100Base-BX
Fiber Type	SMF
Wavelength	Transmit: 1310 nm Receive: 1550 nm
Average Power Output	-14 to -8 dBm
Receiver Sensitivity	-32 dBm
Transmission Distance	~20 km
Maximum Power Output	3 mW
Maximum Pulse Duration	5 ns
Notes	Designed for use with SFP-100-BX20LT

100 FX Ethernet Transceivers

SFP-100-LC-MM
100Base-FX SFP optical transceiver with an LC type interface. This transceiver is designed for use over multi-mode fiber.

Connector Type	LC
Standards Supported	802.3u, SFP MSA
Connections supported	100Base-FX
Fiber Type	MMF
Wavelength	1300 nm
Optical Power Output	-19 to -14 dBm
Optical Power Input	-31 to -14 dBm
Transmission Distance	-
Maximum power output	3 mW
Maximum pulse duration	5 ns
Notes	

SFP-100-LC-SM15
100Base-FX SFP transceiver with an LC type interface. This transceiver is designed for use over single mode fiber.

Connector Type	LC
Standards Supported	802.3u, SFP MSA
Connections Supported	100Base-FX
Fiber Type	SMF
Wavelength (nm)	1300 nm
Optical Power Output	-15 to -8 dBm
Receiver Sensitivity	-31 dBm
Transmission Distance	~15 km
Maximum power output	3 mW
Maximum pulse duration	5 ns
Notes	

100 FX Ethernet Transceivers (cont.)

SFP-100-LC-SM40

100Base-FX SFP optical transceiver with an LC type interface. This transceiver is designed for use over single mode fiber.

Connector Type	LC
Standards Supported	802.3u, SFP MSA
Connections Supported	100Base-FX
Fiber Type	SMF
Wavelength	1300 nm
Optical Power Output	-15 to -8 dBm
Optical Power Input	-31 dBm
Transmission Distances	~40 km
Maximum Power Output	3 mW
Maximum Pulse Duration	5 ns
Notes	

CWDM Gigabit Ethernet Transceivers

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SFP-GIG-CWD
Coarse Wavelength Division Multiplexing (CWDM) is an optical transceiver supporting single-mode fiber over various wavelengths. CWDMs are hot-pluggable and are available for long-reach applications.

Connector Type	LC
Standards Supported	802.3z, SFP MSA
Connections Supported	1000Base-LX
Fiber Type	SMF
Wavelength	1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610
Optical Power Output	-2 to +3 dBm
Optical Power Input	-24 to -3 dBm
Transmission Distances	~62 km
Maximum Power Output	3 mW
Maximum Pulse Duration	5 ns
Notes	

2   10-Gigabit Small Form Factor Pluggables (XFPs)

10-Gigabit Small Form Factor Pluggables (XFPs) are fiber-based optical transceivers. XFPs are fully hot-swappable and are available for both short-reach and long-reach applications.

In This Chapter

This chapter describes the technical specifications for all the OmniSwitch supported XFP transceivers. For additional details about OmniSwitch modules, see the appropriate *OmniSwitch Hardware Guide*.

XFP specifications in the chapter include:

* 10-Gigabit Ethernet Transceivers. See "10-Gigabit Ethernet Transceivers" on page 2-13.

For information on installing and managing OmniSwitch hardware, see the appropriate *Hardware Guide*.

For information on OmniSwitch XFP compatibility, see "XFP Compatibility Matrix" on page 4-17.

XFP MSA Specification

The 10-Gigabit Small Form-Factor Pluggable (XFP) MSA (Multi Source Agreement) is a specification for a common interface for optical modular transceivers. The XFP connector consists of a 30-pin receptacle and an XFP housing cage. The connector provides the interface for the hot pluggable XFP module. Each XFP module contains a serial interface to provide identification information that describes the XFP capabilities, standard interfaces, manufacturer and other information.

For information on installing XFPs, refer to the documentation included with the transceiver.
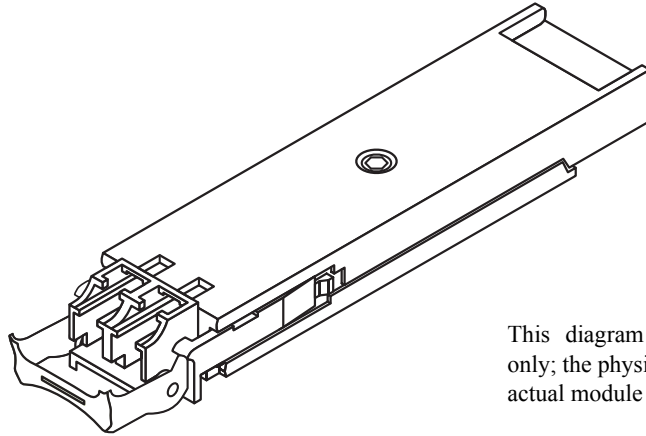
This diagram is a representation only; the physical appearance of the actual module may vary slightly.

10-Gigabit Small Form Factor Pluggable (XFP)

Eye Safety

XFP transceivers are international Class 1 laser products and are eye-safe devices *when operated within the limits of manufacturers' specifications*. Operating XFP transceivers in a manner inconsistent with intended usage and specification may result in hazardous radiation exposure.

10-Gigabit Ethernet Transceivers

10G-XFP-SR

10GBase-SR XFP optical transceiver with an LC type interface. This transceiver is designed for use over single mode fiber.

Connector Type	LC
Standards Supported	802.3ae, XFP MSA
Connections Supported	10GBase-SR
Fiber Type	MMF
Wavelength	850 nm
Optical Power Output	-4.2 to -3.6 dBm
Receiver Sensitivity	-1.0 dBm
Transmission Distance	~ 300 m
Power Consumption	< 2W
Operating Temperature	0 to 70 degrees Celsius
Maximum Power Output	3 mW
Maximum Pulse Duration	5 ns
Notes	

10G-XFP-LR

10GBase-LR XFP optical transceiver with an LC type interface. This transceiver is designed for use over single mode fiber.

Connector Type	LC
Standards Supported	802.3ae, XFP MSA
Connections Supported	10GBase-LR
Fiber Type	SMF
Wavelength	1310 nm
Average Power Output	-6 to -1dBm
Receiver Sensitivity	-24 to -3 dBm
Transmission Distances	~ 10 km
Power Consumption	<2.5W
Operating Temperature	0 to 70 degrees Celsius
Maximum Power Output	3 mW
Maximum Pulse Duration	5 ns
Notes	

10-Gigabit Ethernet Transceivers (cont.)

10G-XFP-ER
10GBase-ER XFP optical transceiver with an LC type interface. This transceiver is designed for use over single mode fiber.

Connector Type	LC
Standards Supported	802.3ae, XFP MSA
Connections Supported	10GBase-ER
Cable Type	SMF
Wavelength	1550 nm
Optical Power Output	-1 to +2 dBm
Receiver Sensitivity	-16 dBm
Transmission Distance	∼ 40 km
Power Consumption	<3.5W
Operating Temperature	-5 to 70 degrees Celsius
Maximum Power Output	3 mW
Maximum Pulse Duration	5 ns
Notes	

10G-XFP-ZR
10GBase-ZR XFP optical transceiver with an LC type interface. This transceiver is designed for use over single mode fiber.

Connector type	LC
Standards Supported	802.3ae, XFP MSA
Connections Supported	10GBase-ZR
Fiber Type	SMF
Wavelength	1550 nm
Optical Power Output	0 to +4 dBm
Receiver Sensitivity	-24 dBm
Transmission Distance	∼ 80 km
Power consumption	<3.5W
Operating Temperature	-5 to 70 degrees Celsius
Maximum Power Output	3 mW
Maximum Pulse Duration	5 ns
Notes	

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3   SFP Compatibility Matrix

OmniSwitch 9000 Series

The following table shows the Ethernet transceiver configurations and supported releases on the OmniSwitch 9000 Series:

SFP	OS9-GNI-C20L	OS9-GNI-U24
SFP-GIG-SX	6.1.5	All
SFP-GIG-LX	6.1.5	All
SFP-GIG-LH40	6.1.5	All
SFP-GIG-LH70	6.1.5	All
SFP-GIG-EXTND	6.1.5	All
SFP-GIG-CWD	6.1.5	All
SFP-GIG-T	6.1.5	6.1.3
SFP-DUAL-MM	6.1.5	6.1.3
SFP-DUAL-SM10	6.1.5	6.1.3
SFP-100-BX20LT	6.1.5	not supported
SFP-100-BX20NU	6.1.5	not supported
SFP-100-LC-MM	6.1.5	not supported
SFP-100-LC-SM15	6.1.5	not supported
SFP-100-LC-SM40	6.1.5	not supported

OmniSwitch 6850 Series

The following table shows the Ethernet transceiver configurations and supported releases on the OmniSwitch 6850:

SFP	OS6850 Combo Ports	OS6850-U24X
SFP-GIG-SX	All	6.1.3
SFP-GIG-LX	All	6.1.3
SFP-GIG-LH40	All	6.1.3
SFP-GIG-LH70	All	6.1.3
SFP-GIG-EXTND	All	6.1.3
SFP-GIG-CWD	All	6.1.3
SFP-GIG-T	All	6.1.3
SFP-DUAL-MM	not supported	6.1.3
SFP-DUAL-SM10	not supported	6.1.3
SFP-100-BX20LT	not supported	6.1.3
SFP-100-BX20NU	not supported	6.1.3
SFP-100-LC-MM	not supported	6.1.3
SFP-100-LC-SM15	not supported	6.1.3
SFP-100-LC-SM40	not supported	6.1.3

OmniSwitch 6800 Series

The following table shows the Ethernet transceiver configurations and supported releases on the OmniSwitch 6800 Series:

SFP	OS6800 Combo Ports	OS6800-U24
SFP-GIG-SX	All	All
SFP-GIG-LX	All	All
SFP-GIG-LH40	All	All
SFP-GIG-LH70	All	All
SFP-GIG-EXTND	All	All
SFP-GIG-CWD	All	All
SFP-GIG-T	6.1.3	6.1.3
SFP-DUAL-MM	not supported	6.1.3
SFP-DUAL-SM10	not supported	6.1.3
SFP-100-BX20LT	not supported	not supported
SFP-100-BX20NU	not supported	not supported
SFP-100-LC-MM	not supported	not supported
SFP-100-LC-SM15	not supported	not supported
SFP-100-LC-SM40	not supported	not supported

4   XFP Compatibility Matrix

OmniSwitch 9000 Series

The following table shows the 10-Gigabit Ethernet transceiver configurations and supported releases on the OmniSwitch 9000 Series:

XFP	OS9-XNI-U2	OS9-XNI-U6
10G-XFP-SR	All	All
10G-XFP-LR	All	All
10G-XFP-ER	All	All
10G-XFP-ZR	All	All

OmniSwitch 6850 Series

The following table shows the 10-Gigabit Ethernet transceiver configurations and supported releases on the OmniSwitch 6850:

XFP	All OmniSwitch 6850 10-Gigabit Models
10G-XFP-SR	All
10G-XFP-LR	All
10G-XFP-ER	All
10G-XFP-ZR	All

OmniSwitch 6800 Series

The following table shows the 10-Gigabit Ethernet transceiver configurations and supported releases on the OmniSwitch 6800:

SFP	All OmniSwitch 6800 10-Gigabit Models
10G-XFP-SR	All
10G-XFP-LR	All
10G-XFP-ER	All
10G-XFP-ZR	All