Cisco Small Form-Factor Pluggable Modules for Gigabit Ethernet Applications

The industry-standard Cisco® Small Form-Factor Pluggable (SFP) Gigabit Interface Converter is a hot-swappable input/output device that plugs into a Gigabit Ethernet port or slot, linking the port with the network (Figures 1, 2 and 3). SFPs can be used and interchanged on a wide variety of Cisco products and can be intermixed in combinations of 1000BASE-T, 1000BASE-SX, 1000BASE-LX/LH, 1000BASE-EX, 1000BASE-ZX, or 1000BASE-BX10-D/U on a port-by-port basis.

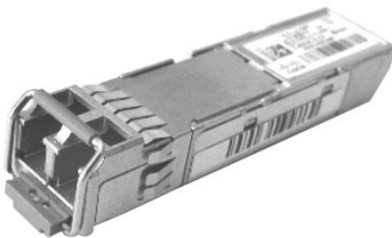**Figure 1.**   Cisco optical Gigabit Ethernet SFP

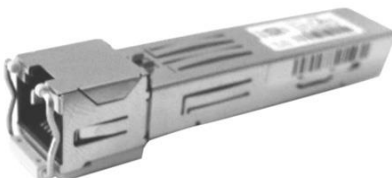**Figure 2.**   Cisco 1000BASE-T Copper SFP

Figure 3.   Cisco 2-channel 1000BASE-BX optical SFP

1000BASE-T SFP for Copper Networks

The 1000BASE-T SFP operates on standard Category 5 unshielded twisted pair copper cabling of up to 100m (328 ft) link length. Cisco 1000BASE-T SFP modules support 10/100/1000 autonegotiation and Auto MDI/MDIX.

1000BASE-SX SFP for Multimode Fiber Only

The 1000BASE-SX SFP, compatible with the IEEE 802.3z 1000BASE-SX standard, operates on legacy 50 µm multimode fiber links up to 550 m and on 62.5 µm Fiber Distributed Data Interface (FDDI)-grade multimode fibers up to 220 m. It can support up to 1km over laser-optimized 50 µm multimode fiber cable.

1000BASE-LX/LH SFP for Both Multimode and Single-Mode Fibers

The 1000BASE-LX/LH SFP, compatible with the IEEE 802.3z 1000BASE-LX standard, operates on standard single-mode fiber-optic link spans of up to 10 km and up to 550 m on any multimode fibers. When used over legacy multimode fiber type, the transmitter should be coupled through a mode conditioning patch cable. For details on this implementation, refer to http://www.cisco.com/en/US/prod/collateral/modules/ps5455/product_bulletin_c25-530836.html.

1000BASE-EX SFP for Long-Reach Single-Mode Fibers

The 1000BASE-EX SFP operates on standard single-mode fiber-optic link spans of up to 40 km in length. A 5-dB inline optical attenuator should be inserted between the fiber-optic cable and the receiving port on the SFP at each end of the link for back-to-back connectivity.

1000BASE-ZX SFP for Long-Reach Single-Mode Fibers

The 1000BASE-ZX SFP operates on standard single-mode fiber-optic link spans of up to approximately 70 km in length. The SFP provides an optical link budget of 21 dB, but the precise link span length depends on multiple factors such as fiber quality, number of splices, and connectors.

When shorter distances of single-mode fiber (SMF) are used, it might be necessary to insert an inline optical attenuator in the link to avoid overloading the receiver. A 10-dB inline optical attenuator should be inserted between the fiber-optic cable plant and the receiving port on the SFP at each end of the link whenever the fiber-optic cable span loss is less than 8 dB.

1000BASE-BX10-D and 1000BASE-BX10-U SFP for Single-Fiber Bidirectional Applications

The 1000BASE-BX-D and 1000BASE-BX-U SFPs, compatible with the IEEE 802.3ah 1000BASE-BX10-D and 1000BASE-BX10-U standards, operate on a single strand of standard SMF.

A 1000BASE-BX10-D device is always connected to a 1000BASE-BX10-U device with a single strand of standard SMF with an operating transmission range up to 10 km.

The communication over a single strand of fiber is achieved by separating the transmission wavelength of the two devices as depicted in Figure 3: 1000BASE-BX10-D transmits a 1490-nm channel and receives a 1310-nm signal, whereas 1000BASE-BX10-U transmits at a 1310-nm wavelength and receives a 1490-nm signal. Note in Figure 3 the presence of a wavelength-division multiplexing (WDM) splitter integrated into the SFP to split the 1310-nm and 1490-nm light paths.

Figure 4.   Bidirectional Transmission of a Single Strand of SMF
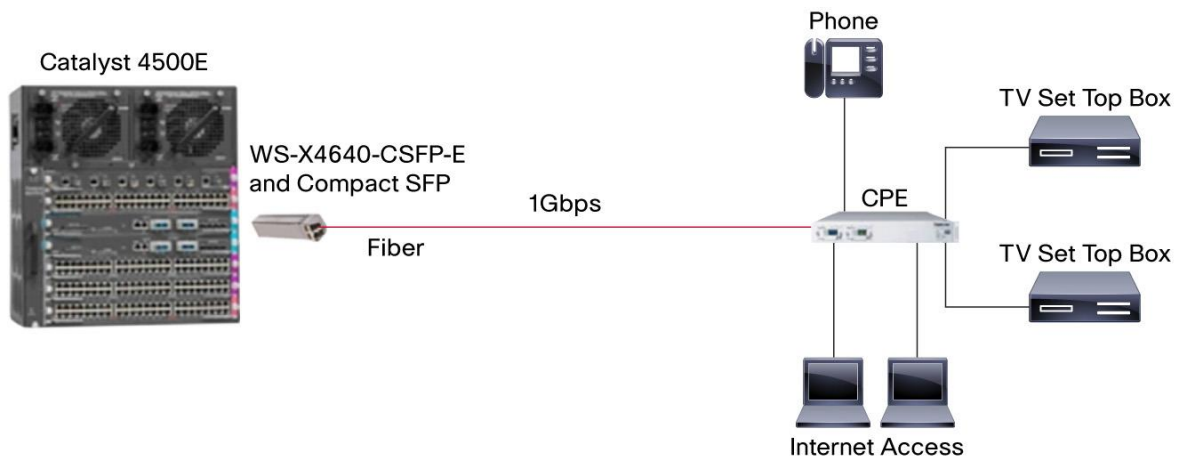

The GLC-BX-D and GLC-BX-U SFPs also support digital optical monitoring (DOM) functions according to the industry-standard SFF-8472 multisource agreement (MSA). This feature gives the end user the ability to monitor real-time parameters of the SFP, such as optical output power, optical input power, temperature, laser bias current, and transceiver supply voltage.

2-channel 1000BASE-BX10-D for Single-Fiber Bidirectional Applications

The 2-channel 1000BASE-BX-D SFP module, also known as Compact SFP, integrates two IEEE 802.3ah 1000BASE-BX10-D interfaces in one SFP module. The GLC-2BX-D is always connected to two 1000BASE-BX10-U interfaces over two single strands of standard SMF with an operating transmission range up to 10km.

GLC-2BX-D is designed to connect to any standard-based Customer Premises Equipment (CPE) in FTTx links (Figure 5).

Figure 5.   Compact SFP deployment with Catalyst 4500

Technical Specifications

Platform Support

The Cisco SFPs are supported across a variety of Cisco switches, routers, and optical transport devices. For more details, refer to the document SFP Compatibility Matrix at
http://www.cisco.com/en/US/docs/interfaces_modules/transceiver_modules/compatibility/matrix/OL_6981.pdf.

Connectors and Cabling

Connectors include the following:

- Dual LC/PC connector (1000BASE-SX, 1000BASE-LX/LH, 1000BASE-EX and 1000BASE-ZX)
- Single LC/PC connector (1000BASE-BX-D and 1000BASE-BX-U)
- RJ-45 connector (1000BASE-T)

Note: Only connections with patch cords with PC or UPC connectors are supported. Patch cords with APC connectors are not supported. All cables and cable assemblies used must be compliant with the standards specified in the standards section.

Table 1 provides cabling specifications for the SFPs that you install in the Gigabit Ethernet port. Note that all SFP ports have LC-type connectors, and the minimum cable distance for all SFPs listed (multimode and single-mode fiber) is 6.5 feet (2 m).

Table 1. SFP Port Cabling Specifications

Product	Wavelength (nm)	Fiber Type	Core Size (μm)	Modal Bandwidth (MHz* Km)***	Operating Distance (m)
1000BASE-SX	850	MMF	62.5	160 (FDDI-grade)	220 (722 ft)
			62.5	200 (OM1)	275 (902 ft)
			50	400 (400/400)	500 (1,640 ft)
			50	500 (OM2)	550 (1,804 ft)
			50	2000 (OM3)	1000 (3281 ft)
1000BASE-LX/LH	1310	MMF*	62.5	500	550 (1,804 ft)
			50	400	550 (1,804 ft)
			50	500	550 (1,804 ft)
		SMF	-**	-	10,000 (32,821 ft)
1000BASE-EX	1310	SMF	-**	-	40,000 (131,234 ft)
1000BASE-ZX	1550	SMF	-	-	Approximately 70 km depending on link loss
1000BASE-BX-U	1310	SMF	-**	-	10,000 (32,821 ft)
1000BASE-BX-D	1490	SMF	-**	-	10,000 (32,821 ft)

*A mode-conditioning patch cord, as specified by the IEEE standard, is required regardless of the span length. Note how the mode conditioning patch cord for 62.5-μm fibers has a different specification from the mode-conditioning patch cord for 50-μm fibers.
**ITU-T G.652 SMF as specified by the IEEE 802.3z standard.
***Specified at transmission wavelength.

Optical Specifications

Table 2 specifies the optical parameters for the SFPs. Both receiver power and channel insertion loss specifications must be met for guaranteed operation.

Table 2. Main Optical Parameters

Product	Transmit Power Range (dBm)	Receive Power Range (dBm)	Maximum Channel insertion loss in dB (by fiber type)*	Transmit and Receive Wavelength Range (nm)
1000BASE-SX	-3 to -9.5	0 to -17	2.4 (FDDI-grade) 2.6 (OM1) 3.4 (400/400) 3.6 (OM2) 5 (OM3)	770 to 860
1000BASE-LX/LH	-3 to -9.5	-3 to -20	2.4 (any MMF) 6 (G.652 SMF)	1270 to 1355
1000BASE-EX	+3 to -1	+1 to -22	18 (G.652 SMF)	1290 to 1335
1000BASE-ZX	+5 to 0	-3 to -23	21 (any SMF)	1500 to 1580
1000BASE-BX10-D	-3 to -9	-3 to -19.5	5.5 (G.652 SMF)	1480 to 1500 (Transmit) 1260 to 1360 (Receive)
1000BASE-BX10-U	-3 to -9	-3 to -19.5	6 (G.652 SMF)	1260 to 1360 (Transmit) 1480 to 1500 (Receive)

*Maximum channel insertion loss is defined for maximum distance guaranteed as specified in Table 1 and by fiber type. When links are deployed over shorter distances, additional channel insertion loss may be allowed.

Dimensions

Dimensions (H x W x D): 8.5 x 13.4 x 56.5 mm. Cisco SFPs typically weigh 75 grams or less.

Environmental Conditions and Power Requirements

Operating temperature range:

- Commercial temperature range (COM): 0 to 70°C (32 to 158°F)
- Extended temperature range (EXT): -5°C to 85°C (23 to 185°F)
- Industrial temperature range (IND): -40 to 85°C (-40 to 185°F)
- Storage temperature range: -40 to 85°C (-40 to 185°F)

Cisco SFP modules typically consume up to 1W per SFP port, with the exception of the Compact SFP (GLC-2BX-D) consuming up to 1.5W.

Table 3 gives temperature range and DOM support information for the SFPs.

Table 3.   Temperature Range and DOM Support

Product Number	Temperature Range	DOM
GLC-ZX-SM	COM	Yes
GLC-BX-U	COM	Yes
GLC-BX-D	COM	Yes
GLC-2BX-D	COM	Yes
GLC-T	COM	n/a
SFP-GE-T	EXT	n/a
SFP-GE-Z	EXT	Yes
GLC-SX-MMD	EXT	Yes
GLC-LH-SMD	EXT	Yes
GLC-EX-SMD	EXT	Yes
GLC-ZX-SMD	EXT	Yes
GLC-SX-MM-RGD	IND	No
GLC-LX-SM-RGD	IND	No
GLC-ZX-SM-RGD	IND	No

Warranty

- Standard warranty: 90 days
- Extended warranty (option): Available under a Cisco SMARTnet® Service support contract for the Cisco switch or router chassis

Regulatory and Standards Compliance

Safety:

- Laser Class I 21CFR1040 LN#50 7/2001
- Laser Class I IEC 60825-1

Standards:

- IEEE 802.3z
- IEEE 802.3ah

GR-20-CORE: Generic Requirements for Optical Fiber and Optical Fiber Cable

GR-326-CORE: Generic Requirements for Single-Mode Optical Connectors and Jumper Assemblies

GR-1435-CORE: Generic Requirements for Multifiber Optical Connectors

Ordering Information

To place an order, visit the Cisco Ordering homepage or refer to Table 4.

Table 4. Ordering Information

Product Description	Product Number
1000BASE-T standard	GLC-T
1000BASE-ZX extended distance	GLC-ZX-SM
1000BASE-BX10-D downstream bidirectional single fiber; with DOM	GLC-BX-D
2-channel 1000BASE-BX10-D downstream bidirectional single fiber; with DOM	GLC-2BX-D
1000BASE-BX10-U upstream bidirectional single fiber; with DOM	GLC-BX-U
1000BASE-T NEBS 3 ESD	SFP-GE-T
1000BASE-SX short wavelength; with DOM	GLC-SX-MMD
1000BASE-LX/LH long-wavelength; with DOM	GLC-LH-SMD
1000BASE-EX long-wavelength; with DOM	GLC-EX-SMD
1000BASE-ZX extended distance; with DOM	SFP-GE-Z GLC-ZX-SMD
1000BASE-SX short wavelength; rugged	GLC-SX-MM-RGD
1000BASE-LX/LH long wavelength; rugged	GLC-LX-SM-RGD
1000BASE-ZX extended distance; rugged	GLC-ZX-SM-RGD

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Cisco Gigabit Ethernet Transceiver Modules Compatibility Matrix

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Note   For the clearest readability of these tables, please use the PDF version provided in the upper right side of your browser screen. The HTML version may have confusing alignment of table data.

Note   Requirements and procedures for initial configurations and software upgrades tend to change and therefore appear only in the switch or router software release notes. Before installing, configuring, or upgrading a switch, refer to the product release notes on Cisco.com for the latest information. This matrix does not replace or supersede the release notes.

This publication contains information on the Cisco platforms and minimum software releases that support the Gigabit Interface Converter (GBIC) and Gigabit Ethernet Small Form-Factor Pluggable (SFP) transceiver modules. Table 1 lists the Gigabit Ethernet transceiver model numbers and operating wavelengths. The other tables are as follows:

- Table 2, Catalyst Express 500 Support
- Table 3, Metro Ethernet Support
- Table 4, Catalyst 2900 Switches Support
- Table 5, Catalyst 3500 Switches Support
- Table 6, Catalyst 3600 Series Switches Support
- Table 7, Catalyst 3700 Series Switches Support
- Table 8, Catalyst 3800 Series Switches Support
- Table 9, Industrial Ethernet and Smart Grid Support
- Table 10, Catalyst 4500 and Catalyst 4900 Switches Support
- Table 11, Catalyst 6500 Series Switches Support
- Table 12, Catalyst 6800 Series Switches Support
- Table 13, Data Center and Blade Switching Support

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Cisco Systems, Inc., 170 West Tasman Drive, San Jose, CA 95134-1706 USA

Table 1   Gigabit Ethernet Transceiver Models

Model Number	Description
GBIC Transceivers	
WS-G5482=	1000BASE-T GBIC transceiver module for Category 5 copper wire, RJ-45 connector
WS-G5483=	1000BASE-T GBIC transceiver module for Category 5 copper wire, RJ-45 connector
WS-G5484=	1000BASE-SX GBIC transceiver module for Multi mode Fiber (MMF), 850-nanometer (nm) wavelength, dual SC/PC connector
WS-G5486=	1000BASE-LX/LH GBIC transceiver module for MMF and SMF, 1300-nm wavelength, dual SC/PC connector
WS-G5487=	1000BASE-ZX GBIC transceiver module for Single Mode Fiber (SMF), 1550-nm wavelength, dual SC/PC connector
CWDM GBIC Transceivers (Dual SC/PC connectors)	
CWDM-GBIC-1470=	Cisco 1000BASE-CWDM GBIC 1470 nm
CWDM-GBIC-1490=	Cisco 1000BASE-CWDM GBIC 1490 nm
CWDM-GBIC-1510=	Cisco 1000BASE-CWDM GBIC 1510 nm
CWDM-GBIC-1530=	Cisco 1000BASE-CWDM GBIC 1530 nm
CWDM-GBIC-1550=	Cisco 1000BASE-CWDM GBIC 1550 nm
CWDM-GBIC-1570=	Cisco 1000BASE-CWDM GBIC 1570 nm
CWDM-GBIC-1590=	Cisco 1000BASE-CWDM GBIC 1590 nm
CWDM-GBIC-1610=	Cisco 1000BASE-CWDM GBIC 1610 nm
DWDM GBIC Transceivers (Dual SC/PC connectors)	
DWDM-GBIC-60.61=	1000BASE-DWDM GBIC 1560.61 nm
DWDM-GBIC-59.79=	1000BASE-DWDM GBIC 1559.79 nm
DWDM-GBIC-58.98=	1000BASE-DWDM GBIC 1558.98 nm
DWDM-GBIC-58.17=	1000BASE-DWDM GBIC 1558.17 nm
DWDM-GBIC-56.55=	1000BASE-DWDM GBIC 1556.55 nm
DWDM-GBIC-55.75=	1000BASE-DWDM GBIC 1555.75 nm
DWDM-GBIC-54.94=	1000BASE-DWDM GBIC 1554.94 nm
DWDM-GBIC-54.13=	1000BASE-DWDM GBIC 1554.13 nm
DWDM-GBIC-52.52=	1000BASE-DWDM GBIC 1552.52 nm
DWDM-GBIC-51.72=	1000BASE-DWDM GBIC 1551.72 nm
DWDM-GBIC-50.92=	1000BASE-DWDM GBIC 1550.92 nm

Table 1   Gigabit Ethernet Transceiver Models (continued)

Model Number	Description
DWDM GBIC Transceivers (continued)	
DWDM-GBIC-50.12=	1000BASE-DWDM GBIC 1550.12 nm
DWDM-GBIC-48.51=	1000BASE-DWDM GBIC 1548.51 nm
DWDM-GBIC-47.72=	1000BASE-DWDM GBIC 1547.72 nm
DWDM-GBIC-46.92=	1000BASE-DWDM GBIC 1546.92 nm
DWDM-GBIC-46.12=	1000BASE-DWDM GBIC 1546.12 nm
DWDM-GBIC-44.53=	1000BASE-DWDM GBIC 1544.53 nm
DWDM-GBIC-43.73=	1000BASE-DWDM GBIC 1543.73 nm
DWDM-GBIC-42.94=	1000BASE-DWDM GBIC 1542.94 nm
DWDM-GBIC-42.14=	1000BASE-DWDM GBIC 1542.14 nm
DWDM-GBIC-40.56=	1000BASE-DWDM GBIC 1540.56 nm
DWDM-GBIC-39.77=	1000BASE-DWDM GBIC 1539.77 nm
DWDM-GBIC-39.98=	1000BASE-DWDM GBIC 1539.98 nm
DWDM-GBIC-38.19=	1000BASE-DWDM GBIC 1538.19 nm
DWDM-GBIC-35.82=	1000BASE-DWDM GBIC 1535.82 nm
DWDM-GBIC-35.04=	1000BASE-DWDM GBIC 1535.04 nm
DWDM-GBIC-34.25=	1000BASE-DWDM GBIC 1534.25 nm
DWDM-GBIC-32.68=	1000BASE-DWDM GBIC 1532.68 nm
DWDM-GBIC-31.90=	1000BASE-DWDM GBIC 1531.90 nm
DWDM-GBIC-31.12=	1000BASE-DWDM GBIC 1531.12 nm
DWDM-GBIC-30.33=	1000BASE-DWDM GBIC 1530.33 nm
SFP Transceivers	
GLC-T=	1000BASE-T SFP transceiver module for Category 5 copper wire, RJ-45 connector
GLC-SX-MM=	1000BASE-SX SFP transceiver module for MMF, 850-nm wavelength, dual LC/PC connector
GLC-LH-SM=	1000BASE-LX/LH SFP transceiver module for MMF and SMF, 1300-nm wavelength, dual LC/PC connector
GLC-ZX-SM=	1000BASE-ZX SFP transceiver module for SMF, 1550-nm wavelength, dual LC/PC connector
GLC-BX-D=	1000BASE-BX10 SFP module for single-strand SMF, 1490-nm TX/1310-nm RX wavelength, single LC/PC connector
GLC-BX-U=	1000BASE-BX10 SFP module for single-strand SMF, 1310-nm TX/1490-nm RX wavelength, single LC/PC connector
GLC-2BX-D=	Dual-channel 1000BASE-BX10 SFP module for single-strand SMF, 1490-nm TX/1310-nm RX wavelength, two single LC/PC connectors

Table 1 *Gigabit Ethernet Transceiver Models (continued)*

Model Number	Description
SFP Transceivers (continued)	
SFP-GE-S=	1000BASE-SX SFP transceiver module for MMF, 850-nm wavelength, extended operating temperature range and DOM support, dual LC/PC connector
SFP-GE-L=	1000BASE-LX/LH SFP transceiver module for MMF and SMF, 1300-nm wavelength, extended operating temperature range and DOM support, dual LC/PC connector
GLC-EX-SMD=	1000BASE-EX SFP transceiver module for SMF, 1310-nm wavelength, extended operating temperature range and DOM support, dual LC/PC connector
SFP-GE-Z=	1000BASE-ZX SFP transceiver module for SMF, 1550-nm wavelength, extended operating temperature range and DOM support, dual LC/PC connector
SFP-GE-T=	1000BASE-T SFP transceiver module for Category 5 copper wire, extended operating temperature range, RJ-45 connector
GLC-SX-MM-RGD	1000BASE-SX SFP transceiver module for MMF, 850-nm wavelength, industrial Ethernet, dual LC/PC connector
GLC-LX-SM-RGD	1000BASE-LX/LH SFP transceiver module for MMF and SMF, 1300-nm wavelength, industrial Ethernet, dual LC/PC connector
GLC-ZX-SM-RGD	1000BASE-ZX SFP transceiver module for SMF, 1550-nm wavelength, industrial Ethernet, dual LC/PC connector
GLC-SX-MMD=	1000BASE-SX SFP transceiver module for MMF, 850-nm wavelength, extended operating temperature range and DOM support, dual LC/PC connector
GLC-LH-SMD=	1000BASE-LX/LH SFP transceiver module for MMF and SMF, 1300-nm wavelength, extended operating temperature range and DOM support, dual LC/PC connector
GLC-ZX-SMD=	1000BASE-ZX SFP transceiver module for SMF, 1550-nm wavelength, dual LC/PC connector
SFP-GPON-B	Gigabit passive optical network (GPON) Class B+ SFP OLT transceiver module, 1490-nm TX/1310-nm RX wavelength
SFP-GPON-B-I	Gigabit passive optical network (GPON) Class B+ SFP OLT transceiver module, 1490-nm TX/1310-nm RX wavelength, industrial temperature range
SFP-GPON-C	Gigabit passive optical network (GPON) Class C+ SFP OLT transceiver module, 1490-nm TX/1310-nm RX wavelength
SFP-GPON-C-I	Gigabit passive optical network (GPON) Class C+ SFP OLT transceiver module, 1490-nm TX/1310-nm RX wavelength, industrial temperature range

Table 1   *Gigabit Ethernet Transceiver Models (continued)*

Model Number	Description
CWDM SFP Transceivers (dual LC/PC connector)	
CWDM-SFP-1470=	Cisco CWDM SFP 1470 nm; Gigabit Ethernet and 1G/2G FC
CWDM-SFP-1490=	Cisco CWDM SFP 1490 nm; Gigabit Ethernet and 1G/2G FC
CWDM-SFP-1510=	Cisco CWDM SFP 1510 nm; Gigabit Ethernet and 1G/2G FC
CWDM-SFP-1530=	Cisco CWDM SFP 1530 nm; Gigabit Ethernet and 1G/2G FC
CWDM-SFP-1550=	Cisco CWDM SFP 1550 nm; Gigabit Ethernet and 1G/2G FC
CWDM-SFP-1570=	Cisco CWDM SFP 1570 nm; Gigabit Ethernet and 1G/2G FC
CWDM-SFP-1590=	Cisco CWDM SFP 1590 nm; Gigabit Ethernet and 1G/2G FC
CWDM-SFP-1610=	Cisco CWDM SFP 1610 nm; Gigabit Ethernet and 1G/2G FC
DWDM SFP Transceivers (dual LC/PC connector)	
DWDM-SFP-6061=	Cisco 1000BASE-DWDM SFP 1560.61 nm
DWDM-SFP-5979=	Cisco 1000BASE-DWDM SFP 1559.79 nm
DWDM-SFP-5898=	Cisco 1000BASE-DWDM SFP 1558.98 nm
DWDM-SFP-5817=	Cisco 1000BASE-DWDM SFP 1558.17 nm
DWDM-SFP-5655=	Cisco 1000BASE-DWDM SFP 1556.55 nm
DWDM-SFP-5575=	Cisco 1000BASE-DWDM SFP 1555.75 nm
DWDM-SFP-5413=	Cisco 1000BASE-DWDM SFP 1554.13 nm
DWDM-SFP-5494=	Cisco 1000BASE-DWDM SFP 1554.94 nm
DWDM-SFP-5252=	Cisco 1000BASE-DWDM SFP 1552.52 nm
DWDM-SFP-5172=	Cisco 1000BASE-DWDM SFP 1551.72 nm
DWDM-SFP-5092=	Cisco 1000BASE-DWDM SFP 1550.92 nm
DWDM-SFP-5012=	Cisco 1000BASE-DWDM SFP 1550.12 nm
DWDM-SFP-4851=	Cisco 1000BASE-DWDM SFP 1548.51 nm
DWDM-SFP-4772=	Cisco 1000BASE-DWDM SFP 1547.72 nm
DWDM-SFP-4692=	Cisco 1000BASE-DWDM SFP 1546.92 nm
DWDM-SFP-4612=	Cisco 1000BASE-DWDM SFP 1546.12 nm
DWDM-SFP-4453=	Cisco 1000BASE-DWDM SFP 1544.53 nm
DWDM-SFP-4373=	Cisco 1000BASE-DWDM SFP 1543.73 nm
DWDM-SFP-4294=	Cisco 1000BASE-DWDM SFP 1542.94 nm
DWDM-SFP-4214=	Cisco 1000BASE-DWDM SFP 1542.14 nm
DWDM-SFP-4056=	Cisco 1000BASE-DWDM SFP 1540.56 nm
DWDM-SFP-3977=	Cisco 1000BASE-DWDM SFP 1539.77 nm
DWDM-SFP-3898=	Cisco 1000BASE-DWDM SFP 1539.98 nm
DWDM-SFP-3819=	Cisco 1000BASE-DWDM SFP 1538.19 nm
DWDM-SFP-3661=	Cisco 1000BASE-DWDM SFP 1536.61 nm
DWDM-SFP-3582=	Cisco 1000BASE-DWDM SFP 1535.82 nm

Table 1　Gigabit Ethernet Transceiver Models (continued)

Model Number	Description
DWDM SFP Transceivers (continued)	
DWDM-SFP-3504=	Cisco 1000BASE-DWDM SFP 1535.04 nm
DWDM-SFP-3425=	Cisco 1000BASE-DWDM SFP 1534.25 nm
DWDM-SFP-3268=	Cisco 1000BASE-DWDM SFP 1532.68 nm
DWDM-SFP-3190=	Cisco 1000BASE-DWDM SFP 1531.90 nm
DWDM-SFP-3112=	Cisco 1000BASE-DWDM SFP 1531.12 nm
DWDM-SFP-3033=	Cisco 1000BASE-DWDM SFP 1530.33 nm
DWDM SFP Transceivers (8 additional wavelengths) (dual LC/PC connector)	
DWDM-SFP-6141=	Cisco 1000BASE-DWDM SFP 1561.42 nm
DWDM-SFP-5736=	Cisco 1000BASE-DWDM SFP 1557.36 nm
DWDM-SFP-5332=	Cisco 1000BASE-DWDM SFP 1553.33 nm
DWDM-SFP-4931=	Cisco 1000BASE-DWDM SFP 1549.32 nm
DWDM-SFP-4532=	Cisco 1000BASE-DWDM SFP 1545.32 nm
DWDM-SFP-4134=	Cisco 1000BASE-DWDM SFP 1541.35 nm
DWDM-SFP-3739=	Cisco 1000BASE-DWDM SFP 1537.40 nm
DWDM-SFP-3346=	Cisco 1000BASE-DWDM SFP 1533.47 nm

Table 2　Catalyst Express 500 Support

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Catalyst Express 500	WS-CE500-24LC WS-CE500-24PC WS-CE500G-12TC	GLC-SX-MM GLC-LH-SM GLC-SX-MMD GLC-LH-SMD	—	12.2(25)FY
Catalyst Express 520	WS-CE520-8PC-K9	GLC-SX-MM GLC-LH-SM GLC-SX-MMD GLC-LH-SMD	—	12.2(35)EX
	WS-CE520-24LC-K9 WS-CE520-24PC-K9 WS-CE520G-24TC-K9	GLC-SX-MM GLC-LH-SM GLC-SX-MMD GLC-LH-SMD	—	12.2(37)EX

Table 3   ***Metro Ethernet Support***

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Cisco ME 2400	ME-2400-24TS-A ME-2400-24TS-D	GLC-T(10/100/1000) GLC-SX-MM GLC-LH-SM GLC-ZX-SM	—	12.2(25)EX
		GLC-BX-D GLC-BX-U CDWM SFP	12.2(44)SE	12.2(25)EX
Cisco ME2600X	ME2600X-44FA-D-K9= ME2600X-44FE-D-K9= ME2600X-44FA-A-K9=	GLC-BX-D GLC-BX-U	—	15.2(02)SA
Cisco ME 3400	ME-3400-24TS-A ME-3400-24TS-D	GLC-T (10/100/1000) GLC-SX-MM GLC-LH-SM	—	12.2(25)EX
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	12.2(46)SE	12.2(25)EX
		GLC-ZX-SM	12.2(46)SE	12.2(25)EX
		GLC-BX-D GLC-BX-U CWDM SFP	12.2(44)SE	12.2(25)EX
		DWDM SFP	12.2(44)SE	12.2(40)SE
		DWDM SFP (add.)	12.2(50)SE	12.2(50)SE
		SFP-GE-S SFP-GE-L	12.2(46)SE	12.2(46)SE
		SFP-GE-T (10/100/1000)	—	12.2(46)SE
		GLC-EX-SMD	12.2(52)SE	12.2(52)SE

Table 3   Metro Ethernet Support (continued)

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Cisco ME 3400 (continued)	ME-3400G-12CS-A ME-3400G-12CS-D	GLC-T (10/100/1000) GLC-SX-MM GLC-LH-SM	—	12.2(25)SEG1
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	12.2(46)SE	12.2(25)SEG1
		GLC-ZX-SM	12.2(46)SE	12.2(25)SEG1
		GLC-BX-D	12.2(44)SE	12.2(25)SEG1
		GLC-BX-U	12.2(44)SE	12.2(25)SEG1
		CWDM SFP	12.2(44)SE	12.2(25)SEG1
		DWDM SFP	12.2(44)SE	12.2(40)SE
		DWDM SFP (add.)	12.2(50)SE	12.2(50)SE
		SFP-GE-S SFP-GE-L	12.2(46)SE	12.2(46)SE
		SFP-GE-T (10/100/1000)	—	12.2(46)SE
		GLC-EX-SMD	12.2(52)SE	12.2(52)SE
	ME-3400G-2CS-A	GLC-T (10/100/1000) GLC-SX-MM GLC-LH-SM	—	12.2(35)SE1
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD GLC-ZX-SM	12.2(46)SE	12.2(35)SE1
		GLC-BX-D GLC-BX-U	12.2(44)SE	12.2(35)SE1
		CWDM SFP	12.2(44)SE	12.2(35)SE1
		DWDM SFP	12.2(44)SE	12.2(40)SE
		DWDM SFP (add.)	12.2(50)SE	12.2(50)SE
		SFP-GE-S SFP-GE-L	12.2(46)SE	12.2(46)SE
		SFP-GE-T (10/100/1000)	—	12.2(46)SE
		GLC-EX-SMD	12.2(52)SE	12.2(52)SE

Table 3   Metro Ethernet Support (continued)

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Cisco ME 3400 (continued)	ME-3400-24FS-A	GLC-T (10/100/1000) GLC-SX-MM GLC-LH-SM	—	12.2(40)SE
		GLC-ZX-SM GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	12.2(46)SE	12.2(40)SE
		GLC-BX-D GLC-BX-U	12.2(44)SE	12.2(40)SE
		CWDM SFP	12.2(44)SE	12.2(40)SE
		DWDM SFP	12.2(50)SE	12.2(40)SE
		DWDM SFP (add.)	12.2(50)SE	12.2(50)SE
		SFP-GE-S SFP-GE-L	12.2(46)SE	12.2(46)SE
		SFP-GE-T (10/100/1000)	—	12.2(46)SE
		GLC-EX-SMD	12.2(52)SE	12.2(52)SE
	ME-3400E-24TS-M ME-3400EG-2CS-A ME-3400EG-12CS-M	GLC-T (10/100/1000) GLC-SX-MM GLC-LH-SM	—	12.2(44)EY
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD GLC-ZX-SM GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP SFP-GE-S SFP-GE-L SFP-GE-Z	12.2(44)EY	12.2(44)EY
		DWDM SFP (add.)	12.2(50)SE	12.2(50)SE
		SFP-GE-T (10/100/1000)	—	12.2(46)SE
		GLC-EX-SMD	12.2(52)SE	12.2(52)SE

Table 3 **Metro Ethernet Support (continued)**

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Catalyst 3750 Metro	ME-C3750-24TE-M	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM	—	12.1(14)AX
		GLC-ZX-SM	12.2(46)SE	12.1(14)AX1
		CWDM SFP	12.2(44)SE	12.1(14)AX1
		GLC-BX-D GLC-BX-U	12.2(44)SE	12.2(25)EY2
		DWDM SFP	12.2(44)SE	12.2(40)SE
		DWDM SFP (add.)	12.2(50)SE	12.2(50)SE
		SFP-GE-S SFP-GE-L	12.2(46)SE	12.2(46)SE
		SFP-GE-T (10/100/1000)	—	12.2(46)SE
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD GLC-EX-SMD	12.2(52)SE	12.2(52)SE
Cisco ME 3600X	ME-3600X-24FS-M (SFP ports)	GLC-T (10/100/1000) GLC-SX-MM GLC-LH-SM SFP-GE-T (10/100/1000)	—	12.2(52)EY
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD GLC-ZX-SM SFP-GE-S SFP-GE-L GLC-BX-U (CPN 10-2094-02) GLC-BX-D (CPN 10-2093-02)	12.2(52)EY	12.2(52)EY
		CWDM SFP DWDM SFP DWDM SFP (add.) GLC-EX-SMD GLC-ZX-SM	15.1(2)EY	15.1(2)EY

Table 3   Metro Ethernet Support (continued)

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Cisco ME 3600X (continued)	ME-3600X-24FS-M ME-3600X-24TS-M (SFP+ ports)	GLC-SX-MM GLC-LH-SM	—	12.2(52)EY
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD GLC-ZX-SM SFP-GE-S SFP-GE-L CWDM SFP DWDM SFP DWDM SFP (add.)	12.2(52)EY	12.2(52)EY
	ME-3600X-24CX-M	SFP-GE-Z	15.3(1)S	15.3(1)S
		GLC-SX-MM-RGD GLC-LX-SM-RGD GLC-ZX-SM-RGD GLC-SX-MMD GLC-EX-SMD GLC-LH-SMD GLC-ZX-SMD SFP-GE-L SFP-GE-S GLC-LH-SM GLC-SX-MM GLC-T SFP-GE-T GLC-BX-U GLC-BX-D CWDM SFP DWDM SFP DWDM SFP (add.)	15.2(2)S1	15.2(2)S1

Table 3 **Metro Ethernet Support (continued)**

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Cisco ME 3800X	ME-3800X-24FS-M (client ports)	GLC-T (10/100/1000) GLC-SX-MM GLC-LH-SM SFP-GE-T (10/100/1000)	—	12.2(52)EY
		GLC-SX-MMD GLC-LH-SMD GLC-EX-SMD GLC-ZX-SMD GLC-ZX-SM SFP-GE-S SFP-GE-L GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP DWDM SFP (add.)	12.2(52)EY	12.2(52)EY
	ME-3800X-24FS-M (SFP+ ports)	GLC-SX-MM GLC-LH-SM	—	12.2(52)EY
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD GLC-ZX-SM SFP-GE-S SFP-GE-L CWDM SFP DWDM SFP DWDM SFP (add.)	12.2(52)EY	12.2(52)EY
Cisco ME 4600 Series	ME4600-AMX-16GPON	SFP-GPON-B SFP-GPON-B-I SFP-GPON-C SFP-GPON-C-I	3.3.1	3.3.1
	ME4600-AMX-48GE	GLC-BX-D GLC-BX-U GLC-2BX-D	3.3.1	3.3.1
Cisco ME 4900 Series	ME-4924-10GE	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-SX-MMD GLC-LH-SMD	—	12.2(31)SGA
		GLC-ZX-SMD GLC-BX-D GLC-BX-U CDWM SFP	12.2(31)SGA	12.2(31)SGA
		DWDM SFP	12.2(37)SG	12.2(37)SG

Table 3   Metro Ethernet Support (continued)

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Cisco ME 6500 Series	ME-C6524GS-8S ME-C6524GT-8S	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-BX-D GLC-BX-U CDWM SFP GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	12.2(18)ZU
		GLC-T (10/100/1000)	—	12.2(33)SXH
		DWDM SFP	—	12.2(18)ZU2

Table 4   Catalyst 2900 Switches Support

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Catalyst Operating System	Cisco IOS Release
Catalyst 2900 series	WS-C2980G-A	WS-G5483 WS-G5484 WS-G5486 WS-G5487 CWDM GBIC	7.2.1	—
	WS-C2948G	WS-G5483 WS-G5484 WS-G5486 WS-G5487 CWDM GBIC	7.2	—
	WS-C2948G-L3	WS-G5483 WS-G5484 WS-G5486 WS-G5487 CWDM GBIC	7.2	—
	WS-C2948G-GE-TX	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-ZX-SMD CWDM SFP	8.2(1)GLX	—
	WS-C2912MF-XL with WS-X2931-XL	WS-G5482	—	12.0(5)XW
		WS-G5483 WS-G5484 WS-G5486 WS-G5487	—	12.0(5)WC3b
		CWDM GBIC	—	12.0(5)WC5
	WS-C2924M-XL-EN with WS-X2931-XL	WS-G5483 WS-G5484 WS-G5486 WS-G5487	—	12.0(5)WC3b
		CWDM GBIC		12.0(5)WC5
	WS-C2924M-XL-EN-DC with WS-X2931-XL	WS-G5483 WS-G5484 WS-G5486 WS-G5487	—	12.0(5)WC3b
		CWDM GBIC	—	12.0(5)WC5

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Catalyst Operating System	Cisco IOS Release
Catalyst 2940 Series	WS-C2940-8TF-S	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-ZX-SMD CWDM SFP GLC-SX-MMD GLC-LH-SMD	—	12.1(13)AY
Catalyst 2950 Series	WS-C2950G-12-EI WS-C2950G-24-EI WS-C2950G-24-EI-DC WS-C2950G-48-EI	WS-G5483 WS-G5484 WS-G5486 WS-G5487	—	12.1(6)EA2b
		CWDM GBIC	—	12.1(12c)EA1
		DWDM GBIC	—	12.1(20)EA2
	WS-C2950ST-8 LRE WS-C2950ST-24 LRE WS-C2950ST-24 LRE997	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-ZX-SMD CWDM SFP GLC-SX-MMD GLC-LH-SMD	—	12.1(19)EA1c

Table 4 **Catalyst 2900 Switches Support (continued)**

| Platform | Switch or Module | Transceiver Module | Minimum Software Release Required | |
			Catalyst Operating System	Cisco IOS Release
Catalyst 2960 series	WS-C2960-24TC-L WS-C2960G-24TC-L WS-C2960-48TC-L	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-ZX-SMD GLC-BX-D GLC-BX-U CWDM SFP GLC-SX-MMD GLC-LH-SMD	—	12.2(25)FX
	WS-C2960-24PC-L	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-ZX-SMD GLC-BX-D GLC-BX-U CWDM SFP GLC-SX-MMD GLC-LH-SMD	—	12.2(44)SE
	WS-C2960-24TC-S WS-C2960-48TC-S	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-SX-MMD GLC-LH-SMD	—	12.2(37)EY
	WS-C2960-8TC-S	GLC-SX-MM GLC-LH-SM GLC-SX-MMD GLC-LH-SMD	—	12.2(46)SE

Table 4   ***Catalyst 2900 Switches Support (continued)***

| Platform | Switch or Module | Transceiver Module | Minimum Software Release Required | |
			Catalyst Operating System	Cisco IOS Release
Catalyst 2960 series (continued)	WS-C2960-48PST-L	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-ZX-SMD GLC-BX-D GLC-BX-U CWDM SFP GLC-SX-MMD GLC-LH-SMD	—	12.2(46)SE
	WS-C2960-8TC-L WS-C2960G-8TC-L	GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-ZX-SMD GLC-BX-D GLC-BX-U CWDM SFP GLC-SX-MMD GLC-LH-SMD	—	12.2(35)SE
	WS-C2960G-48TC-L	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-ZX-SMD GLC-BX-D GLC-BX-U CWDM SFP GLC-SX-MMD GLC-LH-SMD	—	12.2(25)SEE
	WS-C2960-48PST-S WS-C2960-24PC-S WS-C2960-24LC-S	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-SX-MMD GLC-LH-SMD	—	12.2(50)SE

Cisco Gigabit Ethernet Transceiver Modules Compatibility Matrix

Table 4 **Catalyst 2900 Switches Support (continued)**

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Catalyst Operating System	Cisco IOS Release
Catalyst 2960-Plus Series	WS-C2960+48PST-L WS-C2960+24PC-L WS-C2960+24LC-L WS-C2960+48TC-L WS-C2960+24TC-L	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-BX-D GLC-BX-U CWDM SFP GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	15.0(2)EZ
	WS-C2960+48PST-S WS-C2960+24PC-S WS-C2960+24LC-S WS-C2960+48TC-S WS-C2960+24TC-S	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-SX-MMD GLC-LH-SMD	—	15.0(2)EZ
Catalyst 2960-S Series	WS-C2960S-24TS-S WS-C2960S-48TS-S	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-SX-MMD GLC-LH-SM	—	12.2(53)SE1
		GLC-EX-SMD (CPN 10-2624-01 or later only)	—	IOS 12.2(58)SE
	WS-C2960S-48FPS-L WS-C2960S-48LPS-L WS-C2960S-24PS-L WS-C2960S-48TS-L WS-C2960S-24TS-L	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-ZX-SMD GLC-BX-D GLC-BX-U CWDM SFP GLC-SX-MMD GLC-LH-SMD	—	12.2(53)SE1
		GLC-EX-SMD (CPN 10-2624-01 or later only)	—	IOS 12.2(58)SE

Table 4   Catalyst 2900 Switches Support (continued)

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Catalyst Operating System	Cisco IOS Release
Catalyst 2960-S Series (continued)	WS-C2960S-48FPD-L WS-C2960S-48LPD-L WS-C2960S-24PD-L WS-C2960S-48TD-L WS-C2960S-24TD-L	GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-ZX-SMD GLC-BX-D GLC-BX-U CWDM SFP GLC-SX-MMD GLC-LH-SMD	—	12.2(53)SE1
		GLC-EX-SMD (CPN 10-2624-01 or later only)	—	IOS 12.2(58)SE
Catalyst 2960-SF Series	2960S-F48TS-S 2960S-F24TS-S	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-SX-MMD GLC-LH-SMD GLC-EX-SMD (CPN 10-2624-01 or later only)	—	15.0(2)SE
	2960S-F48FPS-L 2960S-F48LPS-L 2960S-F24PS-L 2960S-F48TS-L 2960S-F24TS-L	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-ZX-SMD GLC-BX-D GLC-BX-U CWDM SFP GLC-SX-MMD GLC-LH-SMD GLC-EX-SMD (CPN 10-2624-01 or later only)	—	15.0(2)SE

Cisco Gigabit Ethernet Transceiver Modules Compatibility Matrix

Table 4 *Catalyst 2900 Switches Support (continued)*

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Catalyst Operating System	Cisco IOS Release
Catalyst 2960-C Series	WS-C2960CG-8TC-L	GLC-SX-MM GLC-SX-MMD GLC-LH-SM GLC-LH-SMD GLC-ZX-SM GLC-ZX-SMD GLC-BX-D GLC-BX-U CWDM SFP	—	12.2(55)EX1
		GLC-EX-SMD (CPN 10-2624-01 or later only)	—	15.0(2)SE
	WS-C2960C-8TC-S	GLC-SX-MM GLC-SX-MMD GLC-LH-SM GLC-LH-SMD	—	12.2(55)EX3
		GLC-EX-SMD (CPN 10-2624-01 or later only)	—	15.0(2)SE
	WS-C2960C-8TC-L WS-C2960C-8PC-L WS-C2960C-12PC-L	GLC-SX-MM GLC-SX-MMD GLC-LH-SM GLC-LH-SMD GLC-ZX-SM GLC-ZX-SMD GLC-BX-D GLC-BX-U CWDM SFP	—	12.2(55)EX3
		GLC-EX-SMD (CPN 10-2624-01 or later only)	—	15.0(2)SE
Catalyst 2960-X Series	WS-C2960X-24TS-LL WS-C2960X-48TS-LL	GLC-LH-SMD GLC-SX-MMD GLC-EX-SMD (CPN 10-2624-01 or later only) GLC-T GLC-LH-SM GLC-SX-MM	15.0(2)EX	15.0(2)EX

Table 4   Catalyst 2900 Switches Support (continued)

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Catalyst Operating System	Cisco IOS Release
Catalyst 2960-X Series (continued)	WS-C2960X-24PSQ-L	GLC-BX-D GLC-BX-U GLC-LH-SMD GLC-SX-MMD GLC-EX-SMD (CPN 10-2624-01 or later only) GLC-ZX-SMD GLC-T GLC-ZX-SM GLC-LH-SM GLC-SX-MM	15.0(2)EX	15.0(2)EX
	WS-C2960X-24PS-L WS-C2960X-24TS-L WS-C2960X-48TS-L WS-C2960X-48LPS-L WS-C2960X-48FPS-L WS-C2960X-24TD-L WS-C2960X-24PD-L WS-C2960X-48TD-L WS-C2960X-48LPD-L WS-C2960X-48FPD-L	GLC-BX-D GLC-BX-U GLC-LH-SMD GLC-SX-MMD GLC-EX-SMD (CPN 10-2624-01 or later only) GLC-ZX-SMD GLC-T GLC-ZX-SM GLC-LH-SM GLC-SX-MM CWDM-SFP	15.0(2)EX	15.0(2)EX
Catalyst 2960-XR Series	WS-C2960XR-24TS-I WS-C2960XR-48TS-I WS-C2960XR-24PS-I WS-C2960XR-48LPS-I WS-C2960XR-48FPS-I WS-C2960XR-24TD-I WS-C2960XR-48TD-I WS-C2960XR-24PD-I WS-C2960XR-48LPD-I WS-C2960XR-48FPD-I	GLC-BX-D GLC-BX-U GLC-LH-SMD GLC-SX-MMD GLC-EX-SMD (CPN 10-2624-01 or later only) GLC-ZX-SMD GLC-T GLC-ZX-SM GLC-LH-SM GLC-SX-MM CWDM-SFP	15.0(2)EX1	15.0(2)EX1

Table 4   *Catalyst 2900 Switches Support (continued)*

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Catalyst Operating System	Cisco IOS Release
Catalyst 2970 series	WS-C2970G-24TS-E	GLC-T (10/100/1000) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-ZX-SMD GLC-SX-MMD GLC-LH-SMD	—	12.1(14)EA1
Catalyst 2975 Series	WS-C2975GS-48PS-L	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-ZX-SMD CWDM SFP GLC-SX-MMD GLC-LH-SMD	—	12.2(46)EX

Table 5   *Catalyst 3500 Switches Support*

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Dom Support	Cisco IOS Release
Catalyst 3500XL Series	WS-C3508G-XL-EN WS-C3512-XL-EN WS-C3524-XL-EN WS-C3524-PWR-XL-EN WS-C3548-XL-EN	WS-G5482	—	12.0(5)XW
		WS-G5483 WS-G5484 WS-G5486 WS-G5487 CWDM GBIC	—	12.0(5)WC3b
Catalyst 3550 Series	WS-C3550-24-SMI WS-C3550-24-EMI WS-C3550-24-DC-SMI	WS-G5482	—	12.1(6)EA1a
		WS-G5483 WS-G5484 WS-G5486 WS-G5487	—	12.1(8)EA1b
		CWDM GBIC	—	12.1(12c)EA1
		DWDM GBIC	—	12.1(20)EA2
	WS-C3550-24-FX-SMI WS-C3550-24PWR-SMI WS-C3550-24PWR-EMI	WS-G5482 WS-G5483 WS-G5484 WS-G5486 WS-G5487 CWDM GBIC	—	12.1(12c)EA1
		DWDM GBIC	—	12.1(20)EA2

Table 5   Catalyst 3500 Switches Support (continued)

| Platform | Switch or Module | Transceiver Module | Minimum Software Release Required | |
			Dom Support	Cisco IOS Release
Catalyst 3550 Series (continued)	WS-C3550-48-SMI WS-C3550-48-EMI	WS-G5482 WS-G5483 WS-G5484 WS-G5486 WS-G5487	—	12.1(8)EA1b
		CWDM GBIC	—	12.1(12c)EA1
		DWDM GBIC	—	12.1(20)EA2
	WS-C3550-12G WS-C3550-12T	WS-G5482	—	12.1(6)EA1
		WS-G5483 WS-G5484 WS-G5486 WS-G5487	—	12.1(8)EA1b
		CWDM GBIC	—	12.1(12c)EA1
		DWDM GBIC	—	12.1(20)EA2
Catalyst 3560 Series	WS-C3560-24PS WS-C3560-48PS	GLC-T (10/100/1000) GLC-SX-MM GLC-LH-SM	—	12.1(19)EA1c
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SM GLC-ZX-SMD CWDM SFP SFP-GE-S SFP-GE-L SFP-GE-Z	12.2(46)SE	12.1(19)EA1c
		GLC-BX-D GLC-BX-U	12.2(46)SE	12.2(25)SEB
		DWDM SFP	12.2(46)SE	12.2(40)SE
		DWDM SFP (add.)	12.2(52)SE	12.2(52)SE

Table 5   *Catalyst 3500 Switches Support (continued)*

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Dom Support	Cisco IOS Release
Catalyst 3560 Series (continued)	WS-C3560G-24TS WS-C3560G-48TS WS-C3560G-48PS WS-C3560G-24PS	GLC-T (10/100/1000) GLC-SX-MM GLC-LH-SM	—	12.2(20)SE3
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SM GLC-ZX-SMD CWDM SFP SFP-GE-S SFP-GE-L SFP-GE-Z	12.2(46)SE	12.2(20)SE3
		GLC-BX-D GLC-BX-U	12.2(46)SE	12.2(25)SEB
		DWDM SFP	12.2(46)SE	12.2(40)SE
		DWDM SFP (add.)	12.2(52)SE	12.2(52)SE
	WS-C3560-48TS WS-C3560-24TS	GLC-T (10/100/1000) GLC-SX-MM GLC-LH-SM	—	12.2(20)SE3
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SM GLC-ZX-SMD CWDM SFP SFP-GE-S SFP-GE-L SFP-GE-Z	12.2(46)SE	12.2(20)SE3
		GLC-BX-D GLC-BX-U	12.2(46)SE	12.2(25)SEB
		DWDM SFP	12.2(46)SE	12.2(40)SE
		DWDM SFP (add.)	12.2(52)SE	12.2(52)SE
	WS-C3560-8PC	GLC-T (10/100/1000) GLC-SX-MM GLC-LH-SM GLC-SX-MMD GLC-LH-SMD	—	12.2(35)SE
		GLC-ZX-SM GLC-ZX-SMD CWDM SFP GLC-BX-D GLC-BX-U	12.2(46)SE	12.2(35)SE

Table 5 *Catalyst 3500 Switches Support (continued)*

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Dom Support	**Cisco IOS Release**
Catalyst 3560 Series (continued)	WS-C3560-12PC-S	GLC-SX-MM GLC-LH-SM GLC-SX-MMD GLC-LH-SMD	—	12.2(46)SE
		GLC-ZX-SM GLC-ZX-SMD CWDM SFP GLC-BX-D GLC-BX-U	12.2(46)SE	12.2(46)SE
	WS-C3560V2-24PS WS-C3560V2-24TS WS-C3560V2-48PS WS-C3560V2-48TS	GLC-T (10/100/1000) GLC-SX-MM GLC-LH-SM	—	12.2(50)SE
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SM GLC-ZX-SMD SFP-GE-S SFP-GE-L CWDM SFP GLC-BX-D GLC-BX-U DWDM SFP	12.2(50)SE	12.2(50)SE
		DWDM SFP (add.)	12.2(52)SE	12.2(52)SE
		GLC-EX-SMD (CPN 10-2624-01 or later only)	12.2(58)SE	12.2(58)SE

Cisco Gigabit Ethernet Transceiver Modules Compatibility Matrix

Table 5 **Catalyst 3500 Switches Support (continued)**

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Dom Support	Cisco IOS Release
Catalyst 3560-E Series	WS-C3560E-24TD WS-C3560E-24PD WS-C3560E-48TD WS-C3560E-48PD WS-C3560E-48PDF With CVR-X2-SFP (for X2 ports)	GLC-T (10/100/1000) GLC-SX-MM GLC-LH-SM	—	12.2(35)SE2
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SM GLC-ZX-SMD GLC-BX-D GLC-BX-U CWDM SFP SFP-GE-S SFP-GE-L SFP-GE-Z	12.2(46)SE	12.2(35)SE2
		DWDM SFP	12.2(46)SE	12.2(40)SE
		DWDM SFP (add.)	12.2(52)SE	12.2(52)SE
		GLC-EX-SMD (CPN 10-2624-01 or later only)	12.2(58)SE	12.2(58)SE
	WS-C3560E-12D With CVR-X2-SFP (for X2 ports)	GLC-T (10/100/1000) GLC-SX-MM GLC-LH-SM	—	12.2(40)EX
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SM GLC-ZX-SMD GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP SFP-GE-S SFP-GE-L SFP-GE-Z	12.2(46)SE	12.2(40)EX
		DWDM SFP (add.)	12.2(52)SE	12.2(52)SE
		GLC-EX-SMD (CPN 10-2624-01 or later only)	12.2(58)SE	12.2(58)SE

Table 5　Catalyst 3500 Switches Support (continued)

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Dom Support	Cisco IOS Release
Catalyst 3560-E Series (continued)	WS-C3560E-12SD	GLC-T (10/100/1000) GLC-SX-MM GLC-LH-SM	—	12.2(44)SE
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SM GLC-ZX-SMD GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP SFP-GE-S SFP-GE-L SFP-GE-Z	12.2(46)SE	12.2(44)SE
		DWDM SFP (add.)	12.2(52)SE	12.2(52)SE
		GLC-EX-SMD (CPN 10-2624-01 or later only)	12.2(58)SE	12.2(58)SE
	WS-C3560E-12SD With CVR-X2-SFP (for X2 ports)	GLC-T (10/100/1000) GLC-SX-MM GLC-LH-SM	—	12.2(44)SE
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SM GLC-ZX-SMD GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP SFP-GE-S SFP-GE-L SFP-GE-Z	12.2(46)SE	12.2(44)SE
		DWDM SFP (add.)	12.2(52)SE	12.2(52)SE
		GLC-EX-SMD (CPN 10-2624-01 or later only)	12.2(58)SE	12.2(58)SE

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Dom Support	Cisco IOS Release
Catalyst 3560-X Series	WS-C3560X-24T WS-C3560X-48T WS-C3560X-24P WS-C3560X-48P WS-C3560X-48PF With C3KX-NM-1G and C3KX-NM-10G (slots 1 and 3) network modules	GLC-T (10/100/1000) GLC-SX-MM GLC-LH-SM	—	12.2(53)SE
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SM GLC-ZX-SMD GLC-BX-D GLC-BX-U SFP-GE-S SFP-GE-L SFP-GE-Z CWDM SFP DWDM SFP DWDM SFP (add.)	12.2(53)SE	12.2(53)SE
		GLC-EX-SMD (CPN 10-2624-01 or later only)	12.2(58)SE	12.2(58)SE
	WS-C3560X-24T WS-C3560X-48T WS-C3560X-24P WS-C3560X-48P WS-C3560X-48PF With C3KX-NM-10G (slots 2 and 4) and C3KX-SM-10G network modules	GLC-SX-MM GLC-LH-SM	—	12.2(53)SE
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SM GLC-ZX-SMD GLC-BX-D GLC-BX-U SFP-GE-S SFP-GE-L SFP-GE-Z CWDM SFP DWDM SFP DWDM SFP (add.)	12.2(53)SE	12.2(53)SE
		GLC-EX-SMD (CPN 10-2624-01 or later only)	12.2(58)SE	12.2(58)SE

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Dom Support	Cisco IOS Release
Catalyst 3560-C Series	WS-C3560CG-8TC-S WS-C3560CG-8PC-S	GLC-SX-MM GLC-SX-MMD GLC-LH-SM GLC-LH-SMD GLC-ZX-SM GLC-ZX-SMD GLC-BX-D GLC-BX-U CWDM SFP	—	12.2(55)EX
		GLC-EX-SMD (CPN 10-2624-01 or later only)	—	15.0(2)SE
	WS-C3560C-8PC-S WS-C3560C-12PC-S	GLC-SX-MM GLC-SX-MMD GLC-LH-SM GLC-LH-SMD GLC-ZX-SM GLC-ZX-SMD GLC-BX-D GLC-BX-U CWDM SFP	—	12.2(55)EX3
		GLC-EX-SMD (CPN 10-2624-01 or later only)	—	15.0(2)SE

Table 6   Catalyst 3600 Series Switches Support

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Catalyst 3650 Series	WS-C3650-24TS WS-C3650-48TS WS-C3650-24PS WS-C3650-48PS WS-C3650-48FS WS-C3650-24TD WS-C3650-48TD WS-C3650-24PD WS-C3650-48PD WS-C3650-48FD WS-C3650-48FQ WS-C3650-48PQ WS-C3650-48TQ	GLC-T (10/100/1000) GLC-LH-SM GLC-LH-SMD GLC-SX-MM GLC-SX-MMD GLC-EX-SMD (CPN 10-2624-01 or later only) GLC-ZX-SM GLC-ZX-SMD GLC-BX-D GLC-BX-U CWDM SFP SFP-GE-S SFP-GE-L SFP-GE-T SFP-GE-Z DWDM SFP DWDM SFP (add.)	XE 3.3.0SE	XE 3.3.0SE

Table 7　　　*Catalyst 3700 Series Switches Support*

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Catalyst 3750 series	WS-C3750G-12S WS-C3750G-24TS WS-C3750G-48TS WS-C3750G-24PS WS-C3750G-48PS	GLC-T (10/100/1000) GLC-SX-MM GLC-LH-SM	—	12.1.(14)EA1
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SM GLC-ZX-SMD CWDM SFP SFP-GE-S SFP-GE-L SFP-GE-Z	12.2(46)SE	12.1(14)EA1
		GLC-BX-D GLC-BX-U	12.2(46)SE	12.2(25)SEB
		DWDM SFP	12.2(46)SE	12.2(40)SE
		DWDM SFP (add.)	12.2(52)SE	12.2(52)SE
	WS-C3750-24TS WS-C3750-48TS	GLC-T (10/100/1000) GLC-SX-MM GLC-LH-SM	—	12.1(14)EA1
		GLC-SX-MMD GLC-LH-SMD	12.2(46)SE	12.1(14)EA1
		GLC-ZX-SM GLC-ZX-SMD CWDM SFP SFP-GE-S SFP-GE-L SFP-GE-Z	12.2(46)SE	12.1(19)EA1c
		GLC-BX-D GLC-BX-U	12.2(46)SE	12.2(25)SEB
		DWDM SFP	12.2(46)SE	12.2(40)SE
		DWDM SFP (add.)	12.2(52)SE	12.2(52)SE

Cisco Gigabit Ethernet Transceiver Modules Compatibility Matrix

Table 7 **Catalyst 3700 Series Switches Support (continued)**

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Catalyst 3750 series (continued)	WS-C3750-24PS WS-C3750-48PS	GLC-T (10/100/1000) GLC-SX-MM GLC-LH-SM	—	12.1(19)EA1c
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SM GLC-ZX-SMD CWDM SFP SFP-GE-S SFP-GE-L SFP-GE-Z	12.2(46)SE	12.1(19)EA1c
		GLC-BX-D GLC-BX-U	12.2(46)SE	12.2(25)SEB
		DWDM SFP	12.2(46)SE	12.2(40)SE
		DWDM SFP (add.)	12.2(52)SE	12.2(52)SE
	WS-C3750-24FS-S	GLC-T (10/100/1000) GLC-SX-MM GLC-LH-SM	—	12.2(25)SEB
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SM GLC-ZX-SMD SFP-GE-S SFP-GE-L SFP-GE-Z CWDM SFP GLC-BX-D GLC-BX-U	12.2(46)SE	12.2(25)SEB
		DWDM SFP	12.2(46)SE	12.2(40)SE
		DWDM SFP (add.)	12.2(52)SE	12.2(52)SE

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Catalyst 3750 series (continued)	WS-C3750-24WFS	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM	—	12.2(25)FZ
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SM GLC-ZX-SMD SFP-GE-S SFP-GE-L SFP-GE-Z CWDM SFP GLC-BX-D GLC-BX-U	12.2(46)SE	12.2(25)FZ
		DWDM SFP	12.2(46)SE	12.2(40)SE
		DWDM SFP (add.)	12.2(52)SE	12.2(52)SE
	WS-C3750V2-24PS WS-C3750V2-24TS WS-C3750V2-48PS WS-C3750V2-48TS WS-C3750V2-24FS (uplink ports)	GLC-T (10/100/1000) GLC-SX-MM GLC-LH-SM	—	12.2(50)SE
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SM GLC-ZX-SMD SFP-GE-S SFP-GE-L SFP-GE-Z CWDM SFP GLC-BX-D GLC-BX-U DWDM SFP	12.2(50)SE	12.2(50)SE
		DWDM SFP (add.)	12.2(52)SE	12.2(52)SE
		GLC-EX-SMD (CPN 10-2624-01 or later only)	12.2(58)SE	12.2(58)SE

Table 7 *Catalyst 3700 Series Switches Support (continued)*

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Catalyst 3750-E Series	WS-C3750E-24TD WS-C3750E-24PD WS-C3750E-48TD WS-C3750E-48PD WS-C3750E-48PDF With CVR-X2-SFP (for X2 ports)	GLC-T (10/100/1000) GLC-SX-MM GLC-LH-SM	—	12.2(35)SE2
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SM GLC-ZX-SMD GLC-BX-D GLC-BX-U CWDM SFP SFP-GE-S SFP-GE-L SFP-GE-Z	12.2(46)SE	12.2(35)SE2
		DWDM SFP	12.2(44)SE	12.2(40)SE
		DWDM SFP (add.)	12.2(52)SE	12.2(52)SE
		GLC-EX-SMD (CPN 10-2624-01 or later only)	12.2(58)SE	12.2(58)SE
Catalyst 3750-X Series	WS-C3750X-24T WS-C3750X-48T WS-C3750X-24P WS-C3750X-48P WS-C3750X-48PF With C3KX-NM-1G and C3KX-NM-10G (slots 1 and 3) network modules	GLC-T (10/100/1000) GLC-SX-MM GLC-LH-SM	—	12.2(53)SE
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SM GLC-ZX-SMD GLC-BX-D GLC-BX-U CWDM SFP SFP-GE-S SFP-GE-L SFP-GE-Z DWDM SFP DWDM SFP (add.)	12.2(53)SE	12.2(53)SE
		GLC-EX-SMD (CPN 10-2624-01 or later only)	12.2(58)SE	12.2(58)SE

Table 7   Catalyst 3700 Series Switches Support (continued)

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Catalyst 3750-X Series (continued)	WS-C3750X-24T WS-C3750X-48T WS-C3750X-24P WS-C3750X-48P WS-C3750X-48PF With C3KX-NM-10G (slots 2 and 4) and C3KX-SM-10G network modules	GLC-SX-MM GLC-LH-SM	—	12.2(53)SE
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SM GLC-ZX-SMD GLC-BX-D GLC-BX-U CWDM SFP SFP-GE-S SFP-GE-L SFP-GE-Z DWDM SFP DWDM SFP (add.)	12.2(53)SE	12.2(53)SE
		GLC-EX-SMD (CPN 10-2624-01 or later only)	12.2(58)SE	12.2(58)SE
	WS-C3750X-12S WS-C3750X-24S Client ports and uplink ports with C3KX-NM-1G and C3KX-NM-10G (slots 1 and 3) network modules	GLC-T (10/100/1000) GLC-SX-MM GLC-LH-SM	—	12.2(55)SE5
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SM GLC-ZX-SMD GLC-BX-D GLC-BX-U CWDM SFP SFP-GE-S SFP-GE-L SFP-GE-Z DWDM SFP DWDM SFP (add.)	12.2(55)SE5	12.2(55)SE5
		GLC-EX-SMD (CPN 10-2624-01 or later only)	12.2(58)SE	12.2(58)SE

Table 7 **Catalyst 3700 Series Switches Support (continued)**

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Catalyst 3750-X Series (continued)	WS-C3750X-12S WS-C3750X-24S	GLC-SX-MM GLC-LH-SM	—	12.2(55)SE5
	Uplink ports with C3KX-NM-10G (slots 2 and 4) and C3KX-SM-10G network modules	GLC-SX-MMD GLC-LH-SMD GLC-ZX-SM GLC-ZX-SMD GLC-BX-D GLC-BX-U CWDM SFP SFP-GE-S SFP-GE-L SFP-GE-Z DWDM SFP DWDM SFP (add.)	12.2(55)SE5	12.2(55)SE5
		GLC-EX-SMD (CPN 10-2624-01 or later only)	12.2(58)SE	12.2(58)SE

Table 8 **Catalyst 3800 Series Switches Support**

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Catalyst 3850 Series	C3850-NM-4-1G C3850-NM-2-10G C3850-NM-4-10G	GLC-T (10/100/1000) GLC-LH-SM GLC-LH-SMD GLC-SX-MM GLC-SX-MMD GLC-EX-SMD (CPN 10-2624-01 or later only) GLC-ZX-SM GLC-ZX-SMD GLC-BX-D GLC-BX-U CWDM SFP SFP-GE-S SFP-GE-L SFP-GE-T SFP-GE-Z DWDM SFP DWDM SFP (add.)	XE 3.2.0SE	XE 3.2.0SE

Table 9   Industrial Ethernet and Smart Grid Support

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Catalyst Operating System	Cisco IOS Release
Cisco IE2000 series	IE-2000-4TS-G-L IE-2000-4TS-G-B IE-2000-4T-G-L IE-2000-4T-G-B IE-2000-8TC-G-L IE-2000-8TC-G-B IE-2000-8TC-G-E IE-2000-8TC-G-N IE-2000-16TC-G-L IE-2000-16TC-G-E IE-2000-16TC-G-X IE-2000-16TC-G-N IE-2000-16PTC-G-L IE-2000-16PTC-G-E IE-2000-16PTC-G-NX	GLC-SX-MM-RGD GLC-LX-SM-RGD GLC-ZX-SM-RGD SFP-GE-S SFP-GE-L SFP-GE-Z GLC-SX-MM[1] GLC-LH-SM[1] GLC-SX-MMD GLC-LH-SMD GLC-EX-SMD GLC-BX-D[2] GLC-BX-U[2] CWDM SFP[2] DWDM SFP[2] DWDM SFP (add.)[2]	—	15.0(1)EY
Cisco IE2000U series	IE 2000U-4TS-G IE 2000U-8TC-G IE 2000U-16TC-G IE 2000U-16TC-G-X IE 2000U-16TC-GP	GLC-SX-MM-RGD GLC-LX-SM-RGD GLC-ZX-SM-RGD GLC-BX-D GLC-BX-U SFP-GE-S SFP-GE-L SFP-GE-Z GLC-EX-SMD CWDM-SFP	—	15.0(2)EH
Cisco IE3000 series	IE-3000-4TC IE-3000-8TC	GLC-SX-MM-RGD GLC-LX-SM-RGD GLC-ZX-SM-RGD	—	12.2(44)EX
		GLC-BX-D GLC-BX-U CWDM SFP	—	12.2(50)SE
		GLC-LH-SMD GLC-EX-SMD GLC-ZX-SMD	—	15.0(2)SE

Table 9　　　**Industrial Ethernet and Smart Grid Support (continued)**

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Catalyst Operating System	Cisco IOS Release
Cisco IE3010 series	IE-3010-24TC IE-3010-16S-8PC	GLC-SX-MM-RGD GLC-LX-SM-RGD GLC-ZX-SM-RGD GLC-BX-D GLC-BX-U SFP-GE-S SFP-GE-L SFP-GE-Z CWDM SFP GLC-SX-MMD	—	12.2(53)EZ
		GLC-LH-SMD GLC-EX-SMD GLC-ZX-SMD	—	15.0(2)SE
Cisco 2500 Connected Grid Switch Series	CGS-2520-24TC CGS-2520-16S-8PC	GLC-SX-MM-RGD GLC-LX-SM-RGD GLC-ZX-SM-RGD GLC-BX-D GLC-BX-U SFP-GE-S SFP-GE-L GLC-EX-SMD SFP-GE-Z CWDM SFP	—	12.2(53)EX
Cisco 2000 Connected Grid Router Series	CGR 2010	GLC-SX-MM-RGD GLC-LX-SM-RGD GLC-ZX-SM-RGD	—	15.1(1)T

1. Only Version -03 or later is supported.

2. Only Version -02 or later is supported.

Table 10 Catalyst 4500 and Catalyst 4900 Switches Support

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Cisco IOS Support	DOM Support
Catalyst 4500 series	WS-X4013	WS-G5483 WS-G5484 WS-G5486 WS-G5487 CDWM GBIC	—	—
	WS-X4013+	WS-G5483 WS-G5484 WS-G5486 WS-G5487 CDWM GBIC	12.1(19)EW	—
		DWDM GBIC	12.1(19)EW	12.1(19)EW
	WS-X4013+TS	GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-SX-MMD GLC-LH-SMD	12.2(20)EWA	—
		GLC-BX-D GLC-BX-U CWDM SFP	12.2(20)EWA	12.2(20)EWA
		DWDM SFP	12.2(37)SG	12.2(37)SG
		DWDM SFP (add.)	12.2(53)SG3	12.2(53)SG3
	WS-X4013+10GE	GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-SX-MMD GLC-LH-SMD	12.2(25)SG	—
		GLC-BX-D GLC-BX-U CWDM SFP	12.2(25)SG	12.2(25)SG
		DWDM SFP	12.2(37)SG	12.2(37)SG
		DWDM SFP (add.)	12.2(53)SG3	12.2(53)SG3

Cisco Gigabit Ethernet Transceiver Modules Compatibility Matrix

Table 10 *Catalyst 4500 and Catalyst 4900 Switches Support (continued)*

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Cisco IOS Support	DOM Support
Catalyst 4500 series (continued)	WS-X4748-SFP-E WS-X4724-SFP-E WS-X4712-SFP-E	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-SX-MMD GLC-EX-SMD GLC-ZX-SMD GLC-LH-SMD GLC-ZX-SM GLC-BX-D GLC-BX-U CWDM SFP SFP-GE-S SFP-GE-L SFP-GE-Z DWDM SFP	15.2(1)E	15.2(1)E
	WS-X4014 WS-X4232-GB-RJ WS-X4306-GB WS-X4412-2GB-T	WS-G5483	12.1(13)EW	—
		WS-G5484 WS-G5486 WS-G5487	12.1(8a)EW	—
		CWDM GBIC	12.1(12c)EW	—
		DWDM GBIC	12.1(19)EW	12.1(19)EW

Table 10   Catalyst 4500 and Catalyst 4900 Switches Support (continued)

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Cisco IOS Support	DOM Support
Catalyst 4500 series (continued)	WS-X4418-GB	WS-G5484 WS-G5486 WS-G5487	12.1(8a)EW	—
		CWDM GBIC	12.1(12c)EW	—
		DWDM GBIC	12.1(19)EW	12.2(19)EW
	WS-X4302-GB	WS-G5483 WS-G5484 WS-G5486 WS-G5487 CWDM GBIC	12.1(19)EW	—
		DWDM GBIC	12.1(19)EW	12.2(19)EW
	WS-X4448-GB-SFP	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-SX-MMD GLC-LH-SMD	12.2(20)EW	—
		CWDM SFP	12.2(20)EW	12.2(20)EW
		GLC-BX-D GLC-BX-U	12.2(20)EWA	12.2(20)EWA
		GLC-EX-SMD (CPN 10-2624-01 or later only)	15.1(1)SG	15.1(1)SG
		GLC-ZX-SMD	12.2(25)EWA 10	12.2(25)EWA 10
	WS-X4506-GB-T	GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	12.2(20)EWA	—
		GLC-BX-D GLC-BX-U CWDM SFP	12.2(20)EWA	12.2(20)EWA
		GLC-EX-SMD (CPN 10-2624-01 or later only)	15.1(1)SG	15.1(1)SG

Table 10   *Catalyst 4500 and Catalyst 4900 Switches Support (continued)*

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Cisco IOS Support	DOM Support
Catalyst 4500 series (continued)	WS-X4515	WS-G5483	12.1(13)EW	—
		WS-G5484 WS-G5486 WS-G5487 CWDM GBIC	12.1(12c)EW	—
		DWDM GBIC	12.1(19)EW	12.1(19)EW
	WS-X4516	WS-G5483 WS-G5484 WS-G5486 WS-G5487 CWDM GBIC	12.2(18)EW	—
		DWDM GBIC	12.2(18)EW	12.2(18)EW
	WS-X4516-10GE	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-SX-MMD GLC-LH-SMD	12.2(25)EWA	—
		GLC-BX-D GLC-BX-U CWDM SFP	12.2(25)EWA	12.2(25)EWA
		DWDM SFP	12.2(37)SG	12.2(37)SG
		DWDM SFP (add.)	12.2(53)SG3	12.2(53)SG3
		GLC-ZX-SMD	12.2(25)EWA 10	12.2(25)EWA 10
	WS-X45-SUP6-E WS-X4606-X2 with CVR-X2-SFP Twin Gig converter	GLC-T GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-SX-MMD GLC-LH-SMD	12.2(40)SG	—
		GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP	12.2(40)SG	12.2(40)SG
		DWDM SFP (add.)	12.2(53)SG3	12.2(53)SG3
		GLC-EX-SMD (CPN 10-2624-01 or later only)	15.1(1)SG	15.1(1)SG
		GLC-ZX-SMD	12.2(40)SG	12.2(40)SG

Table 10 *Catalyst 4500 and Catalyst 4900 Switches Support (continued)*

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Cisco IOS Support	**DOM Support**
Catalyst 4500 series (continued)	WS-X4624-SFP-E	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-SX-MMD GLC-LH-SMD	12.2(44)SG	—
		GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP	12.2(44)SG	12.2(44)SG
		DWDM SFP (add.)	12.2(53)SG3	12.2(53)SG3
		GLC-EX-SMD (CPN 10-2624-01 or later only)	15.1(1)SG	15.1(1)SG
		GLC-ZX-SMD	12.2(44)SG1	12.2(44)SG1
	WS-X45-SUP6L-E with CVR-X2-SFP Twin Gig converter	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-SX-MMD GLC-LH-SMD	12.2(52)SG	—
		GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP	12.2(52)SG	12.2(52)SG
		DWDM SFP (add.)	12.2(53)SG3	12.2(53)SG3
		GLC-EX-SMD GLC-ZX-SMD	15.1(1)SG	15.1(1)SG

Table 10   *Catalyst 4500 and Catalyst 4900 Switches Support (continued)*

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Cisco IOS Support	DOM Support
Catalyst 4500 series (continued)	WS-X4612-SFP-E	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-SX-MMD GLC-LH-SMD	12.2(54)SG	—
		GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP DWDM SFP (add.)	12.2(54)SG	12.2(54)SG
		GLC-EX-SMD (CPN 10-2624-01 or later only)	15.1(1)SG	15.1(1)SG
		GLC-ZX-SMD	12.2(44)SG1	12.2(44)SG1
	WS-X4640-CSFP-E	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-SX-MMD GLC-LH-SMD	15.0(2)SG	—
		GLC-BX-D GLC-2BX-D GLC-BX-U CWDM SFP DWDM SFP DWDM SFP (add.) GLC-ZX-SMD	15.0(2)SG	15.0(2)SG
		GLC-EX-SMD (CPN 10-2624-01 or later only)	15.1(1)SG	15.1(1)SG

Table 10   Catalyst 4500 and Catalyst 4900 Switches Support (continued)

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Cisco IOS Support	DOM Support
Catalyst 4500 series (continued)	WS-X4712-SFP+E WS-X45-SUP7-E	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-SX-MMD GLC-LH-SMD	3.1.0SG	—
		GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP DWDM SFP (add.)	3.1.0SG	3.1.0SG
		GLC-EX-SMD (CPN 10-2624-01 or later only) GLC-ZX-SMD	3.4.1SG	3.4.1SG
	WS-X45-SUP7L-E	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-SX-MMD GLC-LH-SMD	3.2.0XO	—
		GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP DWDM SFP (add.)	3.2.0XO	3.2.0XO
		GLC-EX-SMD (CPN 10-2624-01 or later only) GLC-ZX-SMD	3.4.1SG	3.4.1SG
Catalyst 4500 series (continued)	WS-X45-SUP8-E	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-SX-MMD	3.3.0XO	—
		GLC-LH-SMD GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP DWDM SFP (add.) GLC-EX-SMD (CPN 10-2624-01 or later only) GLC-ZX-SMD	3.3.0XO	3.3.0XO

Cisco Gigabit Ethernet Transceiver Modules Compatibility Matrix

Table 10 **Catalyst 4500 and Catalyst 4900 Switches Support (continued)**

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Cisco IOS Support	DOM Support
Catalyst 4500-X Series	WS-C4500X-32SFP+ WS-C4500X-F-32SFP+ WS-C4500X-40X-ES C4KX-NM-8SFP+	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM	3.3.0SG	—
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	3.3.0SG	—
		GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP DWDM SFP (add.)	3.3.0SG	3.3.0SG
		GLC-EX-SMD (CPN 10-2624-01 or later only)	3.4.1SG	3.4.1SG
	WS-C4500X-16SFP+ WS-C4500X-F-16SFP+ WS-C4500X-24X-ES	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM	3.3.1(SG	—
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	3.3.1SG	—
		GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP DWDM SFP (add.)	3.3.1SG	3.3.1SG
		GLC-EX-SMD (CPN 10-2624-01 or later only)	3.4.1SG	3.4.1SG

Table 10   Catalyst 4500 and Catalyst 4900 Switches Support (continued)

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Cisco IOS Support	DOM Support
Catalyst 4900 Series	WS-C4912G	WS-G5483 WS-G5484 WS-G5486 WS-G5487 CWDM GBIC	—	—
	WS-C4948	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD GLC-ZX-SMD	12.2(20)EWA	—
		GLC-BX-D GLC-BX-U CWDM SFP	12.2(20)EWA	12.2(20)EWA
		DWDM SFP	12.2(37)SG	12.2(37)SG
		DWDM (add.)	12.2(53)SG3	12.2(53)SG3
	WS-4928-10GE	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-SX-MMD GLC-LH-SMD	12.2(46)SG	—
		GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP	12.2(46)SG	12.2(46)SG
		DWDM SFP (add.)	12.2(53)SG3	12.2(53)SG3

Table 10 **Catalyst 4500 and Catalyst 4900 Switches Support (continued)**

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			Cisco IOS Support	DOM Support
Catalyst 4900 Series (continued)	WS-C4948E	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-SX-MMD GLC-LH-SMD	12.2(54)SG	—
		GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP	12.2(54)SG	12.2(54)SG
		DWDM SFP (add.) GLC-EX-SMD (CPN 10-2624-01 or later only) GLC-ZX-SMD	12.2(53)SG3	12.2(53)SG3
	WS-X4908 with CVR-X2-SFP Twin Gig converter in a WS-C4900M	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-SX-MMD GLC-LH-SMD	12.2(40)X0 or 12.2(44)SG	—
		GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP	12.2(40)X0 or 12.2(44)SG	12.2(40)X0 or 12.2(44)SG
		DWDM SFP (add.)	12.2(53)SG3	12.2(53)SG3
		GLC-EX-SMD (CPN 10-2624-01 or later only)	15.1(1)SG	15.1(1)SG
		GLC-ZX-SMD	12.2(40)XO	12.2(40)XO

Table 11 Catalyst 6500 Series Switches Support

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required		
			Catalyst Operating System	Cisco IOS Release	DOM Support
Catalyst 6500 Series	WS-X6K-SUP1-2GE WS-X6K-SUP1A-2GE WS-X6K-SUP1A-MSFC WS-X6K-SUP1A-MSFC2 WS-X6K-SUP1A-PFC WS-X6K-SUP2U-MSFC2 WS-X6K-S2-PFC2	WS-G5483	7.2	12.1(13)E	—
		WS-G5484 WS-G5486 WS-G5487	Please see release notes for details	Please see release notes for details	—
		CWDM GBIC	7.2	12.1(13)E	—
	WS-X6K-SUP2-MSFC2 WS-X6K-SUP2U-PFC2 WS-X6408-GBIC WS-X6408A-GBIC WS-X6416-GBIC WS-X6516-GBIC WS-X6816-GBIC	WS-G5483	7.2	12.1(13)E	—
		WS-G5484 WS-G5486 WS-G5487	Please see release notes for details	Please see release notes for details	—
		CWDM GBIC	7.2	12.1(13)E	—
		DWDM GBIC	8.3.1	12.2(17a)SX	—
	WS-X6516A-GBIC	WS-G5483	7.5.1	12.1(19)E1	—
		WS-G5484 WS-G5486 WS-G5487	Please see release notes for details	Please see release notes for details	—
		CWDM GBIC	7.5.1	12.1(19)E1	—
		DWDM GBIC	8.3.1	12.2(17a)SX	—
	WS-SUP720	GLC-T(1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP[1] GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	8.3.1 8.1.1 8.1.1 8.2 8.4.1 8.4.1 8.3.1 — — —	12.2(17a)SX 12.2(14)SX 12.2(17a)SX 12.2(17d)SXB1 12.2(18)SXE1 12.2(18)SXE1 12.2(17a)SX 12.2(33)SXH 12.2(14)SX 12.2(17a)SX	— — — — 12.2(18)SXE1 12.2(18)SXE1 12.2(18)SXE 12.2(33)SXH — —

Table 11 **Catalyst 6500 Series Switches Support (continued)**

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required		
			Catalyst Operating System	Cisco IOS Release	DOM Support
Catalyst 6500 Series (continued)	WS-SUP720-3B WS-SUP720-3BXL	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP[1] GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	8.3.2 8.3.2 8.3.2 8.3.2 8.4.1 8.4.1 8.3.2 — — —	12.2(17d)SXB1 12.2(17d)SXB1 12.2(17d)SXB1 12.2(17d)SXB1 12.2(18)SXE1 12.2(18)SXE1 12.2(17d)SXB1 12.2(33)SXH 12.2(17d)SXB1 12.2(17d)SXB1	— — — — 12.2(18)SXE1 12.2(18)SXE1 12.2(18)SXE 12.2(33)SXH — —
	WS-SUP32-GE-3B WS-SUP32-10GE-3B	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP[1] GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	8.4(1) 8.4(1) 8.4(1) 8.4(1) 8.4(1) 8.4(1) 8.4(1) — — —	12.2(18)SXF 12.2(18)SXF 12.2(18)SXF 12.2(18)SXF 12.2(18)SXF 12.2(18)SXF 12.2(18)SXF 12.2(33)SXH 12.2(18)SXF 12.2(18)SXF	— — — — 12.2(18)SXF 12.2(18)SXF 12.2(18)SXF 12.2(33)SXH — —
	WS-SUP32-GE-PISA	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP[1] GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	12.2(18)ZY	—

Table 11 **Catalyst 6500 Series Switches Support (continued)**

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required		
			Catalyst Operating System	**Cisco IOS Release**	**DOM Support**
Catalyst 6500 Series (continued)	VS-S720-10G-3C VS-S720-10G-3CXL	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP[1] GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	12.2(33)SXH	— — — — 12.2(33)SXH 12.2(33)SXH 12.2(33)SXH 12.2(33)SXH — —
	WS-X6724-SFP WS-X6748-SFP	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP[1] GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	8.3.1 8.1.1 8.1.1 8.2 8.4.1 8.4.1 8.3.1 — — —	12.2(17a)SX 12.2(14)SX 12.2(17a)SX 12.2(17d)SXB1 12.2(18)SXE1 12.2(18)SXE1 12.2(17a)SX 12.2(33)SXH- 12.2(14)SX 12.2(17a)SX	—
Catalyst 6500 Series (continued)	VS-S2T-10G VS-S2T-10G-XL WS-X6824-SFP-2T WS-X6824-SFP-2TXL WS-X6848-SFP-2T WS-X6848-SFP-2TXL	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-BX-D GLC-BX-U CWDM-SFP DWDM-SFP[1] GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	12.2(50)SY	—
	WS-X6904-40G-2T WS-X6904-40G-2TXL	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-BX-D GLC-BX-U CWDM-SFP DWDM-SFP[1] GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	15.1(1)SY	—

1. Does not include support for the DWDM SFP transceivers (8 additional wavelengths). See Table 1 for specific model numbers.

Table 12   *Catalyst 6800 Series Switches Support*

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Catalyst 6800 Series	C6800IA-48FPD C6800IA-48TD	GLC-BX-D GLC-BX-U GLC-LH-SMD GLC-SX-MMD GLC-T GLC-SX-MM	15.1(2)SY2	15.1(2)SY2
	C6880-X	GLC-LH-SMD GLC-SX-MMD GLC-EX-SMD GLC-ZX-SMD GLC-T GLC-ZX-SM GLC-LH-SM GLC-SX-MM	15.1(2)SY1	15.1(2)SY1

Table 13   *Data Center and Blade Switching Support*

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM support	Cisco IOS or NX-OS Release
Cisco Catalyst 2350 Series	2350-48TD-S 2350-48TD-SD (with CVR-X2-SFP TwinGig converter)	GLC-T GLC-SX-MM GLC-SX-MMD	—	Cisco IOS 12.2(46)EY
Cisco Catalyst 2360 Series	2360-48TD-S	GLC-SX-MM GLC-LH-SM GLC-SX-MMD GLC-LH-SMD	—	Cisco IOS 12.2(53)EY

Table 13   Data Center and Blade Switching Support (continued)

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM support	Cisco IOS or NX-OS Release
Cisco Catalyst 3000 and 3100 Blade Switches	WS-CBS3020-HPQ	GLC-SX-MM GLC-LH-SM GLC-SX-MMD GLC-LH-SMD	—	Cisco IOS 12.2(35)SE
	WS-CBS3030-DEL WS-CBS3040-FSC	GLC-T (1000BASE-T) GLC-SX-MM GLC-SX-MMD	—	Cisco IOS 12.2(35)SE
	WS-CBS-3120G-S WS-CBS-3130G-S (with CVR-X2-SFP TwinGig converter)	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-SX-MMD GLC-LH-SMD	—	Cisco IOS 12.2(40)EX1
	WS-CBS3032-DEL (with CVR-X2-SFP TwinGig converter)	GLC-SX-MM GLC-LH-SM GLC-SX-MMD GLC-LH-SMD	—	Cisco IOS 12.2(40)EX1
	WS-CBS3110X-S (with CVR-X2-SFP TwinGig converter)	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-SX-MMD GLC-LH-SMD	—	Cisco IOS 12.2(52)SE
Cisco Nexus 2000 Series	N2K-C2232PP-10GE	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-SX-MMD GLC-LH-SMD	—	NX-OS 4.2(1)N2(1)
Cisco Nexus 3000 Series	N3K-C3064PQ	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-SX-MMD GLC-LH-SMD	—	NX-OS 5.0(3)U1(1d)
	N3K-C3064PQ-10GE	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-SX-MMD GLC-LH-SMD	—	NX-OS 5.0(3)U1(2)
	N3K-C3048TP-1GE	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-SX-MMD GLC-LH-SMD	—	NX-OS 5.0(3)U2(2b)

Table 13 Data Center and Blade Switching Support (continued)

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM support	Cisco IOS or NX-OS Release
Cisco Nexus 4000 Series	N4K-4001I-XPX	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-SX-MMD GLC-LH-SMD	—	NX-OS 4.1(2)E1(1)
Cisco Nexus 5000 Series	N5K-C5010P-BF N5K-C5020P-BF	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM SFP-GE-T (1000BASE-T)	—	NX-OS 4.0(1a)N1(1)
		SFP-GE-S SFP-GE-L GLC-SX-MMD GLC-LH-SMD	NX-OS 4.0(1a)N1(1)	NX-OS 4.0(1a)N1(1)
	N5K-C5548P-FA N5K-C5548UP-FA N5KC5596UP-FA N55-M16P N55-M8P8FP N55-M16UP	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM SFP-GE-T (1000BASE-T)	—	NX-OS 5.0(3)N1(1B)
		SFP-GE-S SFP-GE-L GLC-SX-MMD GLC-LH-SMD	NX-OS 5.0(3)N1(1B)	NX-OS 5.0(3)N1(1B)
Cisco Unified Computing System	N10-S6100 N10-S6200 N10-E0440 N10-E0600 N20-I6584	SFP-GE-S SFP-GE-L GLC-SX-MMD GLC-LH-SMD	UCS Manager v1.3	UCS Manager v1.3
		GLC-SX-MM GLC-LH-SM GLC-T (1000BASE-T) SFP-GE-T (1000BASE-T)	—	UCS Manager v1.3
	UCS-FI-6248UP UCS-FI-E16UP UCS-IOM-2208XP	SFP-GE-S SFP-GE-L GLC-SX-MMD GLC-LH-SMD	UCS Manager v2.0(1)	UCS Manager v2.0(1)
		GLC-SX-MM GLC-LH-SM GLC-T (1000BASE-T) SFP-GE-T (1000BASE-T)	—	UCS Manager v2.0(1)

Table 13   Data Center and Blade Switching Support (continued)

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM support	Cisco IOS or NX-OS Release
Cisco Nexus 7000 Series	N7K-M148GS-11	SFP-GE-S GLC-SX-MMD GLC-SX-MM SFP-GE-L GLC-LH-SMD GLC-LH-SM SFP-GE-Z GLC-ZX-SM	NX-OS 4.1(2) NX-OS 4.1(2) — NX-OS 4.1(2) NX-OS 4.1(2) — NX-OS 4.1(2) —	NX-OS 4.1(2)
		GLC-T (1000BASE-T) SFP-GE-T (1000BASE-T) CWDM SFP DWDM SFP	— — — NX-OS 4.2(1) NX-OS 4.2(1)	NX-OS 4.2(1)
		GLC-BX-D GLC-BX-U	NX-OS 5.2(1) NX-OS 5.2(1)	NX-OS 5.2(1)
		GLC-EX-SMD GLC-ZX-SMD	NX-OS 6.2(2)	NX-OS 6.2(2)

Table 13 **Data Center and Blade Switching Support (continued)**

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM support	Cisco IOS or NX-OS Release
Cisco Nexus 7000 Series (continued)	N7K-M148GS-11L	SFP-GE-S GLC-SX-MMD GLC-SX-MM SFP-GE-L GLC-LH-SMD GLC-LH-SM SFP-GE-Z GLC-ZX-SM GLC-T (1000BASE-T) SFP-GE-T (1000BASE-T) CWDM SFP DWDM SFP	NX-OS 5.0(2a) NX-OS 5.0(2a) — NX-OS 5.0(2a) NX-OS 5.0(2a) — NX-OS 5.0(2a) — — — NX-OS 5.0(2a) NX-OS 5.0(2a)	NX-OS 5.0(2a)
		GLC-BX-D GLC-BX-U	NX-OS 5.2(1) NX-OS 5.2(1)	NX-OS 5.2(1)
		GLC-EX-SMD GLC-ZX-SMD	NX-OS 6.2(2)	NX-OS 6.2(2)
	N7K-F132XP-15	SFP-GE-S GLC-SX-MMD GLC-SX-MM SFP-GE-L GLC-LH-SMD GLC-LH-SM SFP-GE-Z GLC-ZX-SM GLC-T (1000BASE-T) SFP-GE-T (1000BASE-T)	NX-OS 5.1(1) NX-OS 5.1(1) — NX-OS 5.1(1) NX-OS 5.1(1) — NX-OS 5.1(1) — — —	NX-OS 5.1(1)
		GLC-ZX-SMD	NX-OS 6.2(2)	NX-OS 6.2(2)

Table 13 **Data Center and Blade Switching Support (continued)**

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM support	Cisco IOS or NX-OS Release
Cisco Nexus 7000 Series (continued)	N7K-F248XP-25	GLC-T (1000BASE-T) SFP-GE-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM	—	NX-OS 6.0
		GLC-SX-MMD SFP-GE-S GLC-LH-SMD SFP-GE-L SFP-GE-Z GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP	NX-OS 6.0	NX-OS 6.0
		GLC-ZX-SMD	NX-OS 6.2(2)	NX-OS 6.2(2)
	N7K-F248XP-25E	GLC-T (1000BASE-T) SFP-GE-T(1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM	—	NX-OS 6.1(2)
		GLC-SX-MMD SFP-GE-S GLC-LH-SMD SFP-GE-L SFP-GE-Z GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP	NX-OS 6.1(2)	NX-OS 6.1(2)
		GLC-ZX-SMD	NX-OS 6.2(2)	NX-OS 6.2(2)

Table 13   Data Center and Blade Switching Support (continued)

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM support	Cisco IOS or NX-OS Release
Cisco Nexus 7000 Series (continued)	N77-F348XP-23	GLC-T SFP-GE-T	—	NX-OS 6.2(8)
		GLC-TE	—	NX-OS 6.2(10)
		GLC-SX-MM SFP-GE-S GLC-SX-MMD GLC-LH-SM SFP-GE-L GLC-LH-SMD GLC-EX-SMD GLC-ZX-SM SFP-GE-Z GLC-ZX-SMD GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP DWDM SFP	NX-OS 6.2(8)	NX-OS 6.2(8)
Cisco Nexus 9000 Series (Modular 9500)	N9K-X9564PX	GLC-SX-MM GLC-LH-SM GLC-T (1000BASE-T)	—	6.1(2)I2(1)
		GLC-SX-MMD GLC-LH-SMD	6.1(2)I2(1)	6.1(2)I2(1)
	N9K-X9464PX	GLC-SX-MM GLC-LH-SM GLC-T (1000BASE-T)	—	6.1(2)I2(2a)
		GLC-SX-MMD GLC-LH-SMD	6.1(2)I2(2a)	6.1(2)I2(2a)
Cisco Nexus 9000 Series (Fixed 9300)	N9K-C9396PX	GLC-SX-MM GLC-T (1000BASE-T)	—	6.1(2)I2(1)
		GLC-SX-MMD GLC-LH-SMD	6.1(2)I2(1)	6.1(2)I2(1)
Cisco CSS 11500 Series	CSS11506-2AC CSS11506-2DC CSS11503-AC CSS11503-DC CSS11501 CSS5-SCM-2GE CSS5-IOM-2GE	GLC-T GLC-SX-MM GLC-LH-SM	—	WebNS 7.5
Cisco MDS 9000 Series	Please refer to: http://www/en/US/prod/collateral/ps4159/ps6409/ps4358/product_data_sheet09186a00801bc698.html			

Table 14   Router Support

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Cisco 892F Series	CISCO892F-K9 CISCO892FW-K9	GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-BX-D GLC-BX-U GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	15.1(2)T
Cisco 1921 Series Router	HWIC-1GE-SFP	GLC-T GLC-SX-MM GLC-LH-SM GLC-ZX-SM CWDM SFP GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	15.0(1)M2
	EHWIC-1GE-SFP-CU	GLC-T GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	15.1(4)M
Cisco1941 Series Router	HWIC-1GE-SFP	GLC-T GLC-SX-MM GLC-LH-SM GLC-ZX-SM CWDM SFP GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	15.0(1)M
	EHWIC-1GE-SFP-CU	GLC-T GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	15.1(4)M

Table 14   Router Support (continued)

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Cisco 2600 Series Router	NM-1GE	WS-G5483 WS-G5484 WS-G5486 WS-G5487 CWDM GBIC GLC-ZX-SMD	—	12.2(11)YT
	NME-XD-24ES-1S-P NME-XD-48ES-2S-P	GLC-T GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	12.2(25)EZ
Cisco 2800 Series Router	NME-XD-24ES-1S-P NME-XD-48ES-2S-P	GLC-T GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	12.2(25)EZ
	HWIC-1GE-SFP	GLC-T GLC-SX-MM GLC-LH-SM GLC-ZX-SM CWDM SFP GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	12.3(8)T4
Cisco 2900 Series Router	Cisco 2921 Cisco 2951	GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-BX-U GLC-BX-D CWDM SFP DWDM SFP GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	15.0(1)M
	HWIC-1GE-SFP	GLC-T GLC-SX-MM GLC-LH-SM GLC-ZX-SM CWDM SFP GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	15.0(1)M

Table 14　Router Support (continued)

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Cisco 2900 Series Router (continued)	SM-D-ES3G-48-P SM-D-ES3-48-P SM-D-ES2-48	GLC-T GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-BX-U GLC-BX-D CWDM SFP DWDM SFP GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	15.0(1)M
	EHWIC-1GE-SFP-CU	GLC-T GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	15.1(4)M
Cisco 3200 Series Rugged Routers	Cisco 3270	GLC-SX-MM-RGD GLC-LX-SM-RGD	—	12.4(6)XE
Cisco 3600 Series Router	NM-1GE	WS-G5483 WS-G5484 WS-G5486 WS-G5487 CWDM GBIC	—	12.2(11)YT
Cisco 3700 Series Router	NM-1GE	WS-G5483 WS-G5484 WS-G5486 WS-G5487 CWDM GBIC	—	12.2(11)YT
	NME-XD-24ES-1S-P NME-XD-48ES-2S-P	GLC-T GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-SX-MMD GLC-LH-SMD	—	12.2(25)EZ

Table 14 **Router Support (continued)**

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Cisco 3800 Series Router	NM-1GE	WS-G5483 WS-G5484 WS-G5486 WS-G5487 CWDM GBIC	—	12.2(11)YT
	NME-XD-24ES-1S-P NME-XD-48ES-2S-P	GLC-T GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	12.2(25)EZ
	HWIC-1GE-SFP	GLC-T GLC-SX-MM GLC-LH-SM GLC-ZX-SM CWDM SFP GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	12.3(8)T4
	Cisco 3825	GLC-SX-MM GLC-LH-SM GLC-ZX-SM CWDM SFP GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	12.3(11)T
	Cisco 3845	GLC-SX-MM GLC-LH-SM GLC-ZX-SM CWDM SFP GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	12.3(11)T

Table 14　　**Router Support (continued)**

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Cisco 3900 Series Router	Cisco 3925 Cisco 3945	GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-BX-U GLC-BX-D CWDM SFP DWDM SFP GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	15.0(1)M
	HWIC-1GE-SFP	GLC-T GLC-SX-MM GLC-LH-SM GLC-ZX-SM CWDM SFP GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	15.0(1)M
	SM-D-ES3G-48-P SM-D-ES3-48-P SM-D-ES2-48	GLC-T GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-BX-U GLC-BX-D CWDM SFP DWDM SFP GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	15.0(1)M
	EHWIC-1GE-SFP-CU	GLC-T GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	15.1(4)M

Cisco Gigabit Ethernet Transceiver Modules Compatibility Matrix

Table 14   **Router Support (continued)**

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Cisco 4400 Series Router	Cisco 4451-X	GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-BX-U GLC-BX-D CWDM SFP DWDM SFP	—	XE 3.9.1
		GLC-LH-SMD GLC-SX-MMD	—	XE 3.1.0
		GLC-ZX-SMD	—	XE 3.1.1
Cisco 6400 Universal Access Router	C6400-NRP-2SV	WS-G5484 WS-G5486 WS-G5487	—	12.2(2)B6
Cisco 7200 Series Router The Cisco 7200 series router supports multiple parallel release branches. Where several releases are grouped together, they provide support for all transceivers in the corresponding group.	NPE-G1	WS-G5484 WS-G5486 WS-G5487 CWDM GBIC	—	12.0(28)S 12.1(14)E 12.2(15)B 12.2(4)BW 12.2(14)S 12.2(14)SU 12.2(15)T9
	Cisco 7201	GLC-SX-MM GLC-SX-MMD	—	12.2(33)SRC2 12.4(15)T7 12.4(20)T1
		SFP-GE-T	—	12.2(33)SRC2 12.4(15)T7
		SFP-GE-S SFP-GE-L GLC-LH-SMD SFP-GE-Z CWDM SFP	—	12.2(31)SB2 12.2(33)SRC2 12.4(15)T7
	NPE-G2	GLC-SX-MM GLC-SX-MMD	—	12.2(33)SRC2 12.4(15)T7 12.4(20)T1
		SFP-GE-S SFP-GE-L GLC-LH-SMD SFP-GE-Z CWDM SFP	—	12.2(31)SB2 12.2(33)SRC2 12.4(15)T7
	C7200-I/O-GE+E	WS-G5484 WS-G5486 WS-G5487	—	12.0(14)S2 12.1(3a)E5 12.1(5)T1
	PA-GE	WS-G5484 WS-G5486 WS-G5487	—	12.0(7)S 12.0(6)T 12.1(1)E

Table 14   *Router Support (continued)*

| Platform | Switch or Module | Transceiver Module | Minimum Software Release Required | |
			DOM Support	Cisco IOS Release
Cisco uBR7200 Series	uBR7200-NPE-G1	WS-G5484 WS-G5486 WS-G5487 CWDM GBIC	—	12.2(11)CX
	uBR7200-NPE-G2	GLC-SX-MMD GLC-LH-SMD SFP-GE-S SFP-GE-L SFP-GE-Z CWDM SFP	12.2SB	12.2SB
Cisco 7300 Series Router	CISCO7301	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	12.2(18)S1
	7300-NSE-100	WS-G5484 WS-G5486 WS-G5487	—	12.2(20)S
		WS-G5483 CWDM GBIC	—	12.2(28)SB
	7304-NPE-G100	GLC-SX-MM GLC-LH-SM GLC-ZX-SM CWDM SFP	—	12.2(20)S
	7300-NSE-150	GLC-T GLC-SX-MM GLC-LH-SM GLC-ZX-SM	—	12.2(31)SB2
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD GLC-BX-D GLC-BX-U SFP-GE-S SFP-GE-L SFP-GE-Z CWDM SFP	12.2(31)SB2	12.2(31)SB2
Cisco 7500 Series Router	GEIP GEIP+	WS-G5484 WS-G5486 WS-G5487	—	Please see release notes

Table 14   **Router Support (continued)**

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Cisco 7600 Series Router	OSM-1CHOC12/T1-SI OSM-1CHOC12/T3-SI OSM-2OC12-ATM-MM OSM-2OC12-ATM-SI OSM-2OC12-ATM-MM+ OSM-2OC12-ATM-SI+ OSM-4OC3-POS-SI OSM-4OC3-POS-SI+ OSM-4OC12-POS-SI OSM-4OC12-POS-SI+ OSM-8OC3-POS-MM OSM-8OC3-POS-SI OSM-8OC3-POS-SL OSM-8OC3-POS-SL+ OSM-8OC3-POS-SI+ OSM-16OC3-POS-MM OSM-16OC3-POS-SI OSM-16OC3-POS-SL OSM-16OC3-POS-SI+ OSM-2OC12-POS-MM OSM-2OC12-POS-SI OSM-2OC12-POS-SL OSM-2OC12-POS-SI+ OSM-2OC12-POS-MM+ OSM4OC12-POS-MM OSM4OC12-POS-SI OSM4OC12-POS-SL OSM4OC12-POS-SI+ OSM-1OC48-POS-SI OSM-1OC48-POS-SL OSM-1OC48-POS-SS OSM-1OC48-POS-SS+ OSM-10C48-POS-SI+ OSM-1OC48-POS-SL+ OSM-2OC48/1DPT-SS OSM-2OC48/1DPT-SI OSM-2OC48/1DPT-SL OSM-2+4GE-WAN+ OSM-4GE-WAN-GBIC	WS-G5484 WS-G5486 WS-G5487 CWDM GBIC	—	Please see release notes

Table 14   Router Support (continued)

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Cisco 7600 Series Router (continued)	WS-SUP720 WS-SUP720-3B WS-SUP720-3BXL	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	12.2(33)SRA
		CWDM SFP	12.2(33)SRA	12.2(33)SRA
	WS-SUP32-GE-3B	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	12.2(33)SRA
		GLC-BX-D GLC-BX-U	12.2(33)SRA	12.2(33)SRA
		CWDM SFP	12.2(33)SRB	12.2(33)SRB
		DWDM SFP	12.2(33)SRE	12.2(33)SRE
	WS-X6724-SFP WS-X6748-SFP	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-BX-D GLC-BX-U CWDM SFP GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	—	12.2(33)SRA
		SFP-GE-T (1000BASE-T) SFP-GE-S SFP-GE-L SFP-GE-Z	—	12.2(33)SRB
		DWDM SFP	—	12.2(33)SRE

Table 14   Router Support (continued)

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Cisco 7600 Series Router (continued)	RSP720-3C-GE RSP720-3CXL-GE	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM	—	12.2(33)SRB
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	12.2(33)SRE1	12.2(33)SRB
		SFP-GE-T (1000BASE-T)	—	12.2(33)SRE1
		GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP SFP-GE-S SFP-GE-L	12.2(33)SRE1	12.2(33)SRE1
	RSP720-10GE	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM GLC-ZX-SM SFP-GE-T (1000BASE-T)	—	12.2(33)SRC
		GLC-BX-D GLC-BX-U SFP-GE-S SFP-GE-L GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	12.2(33)SRC	12.2(33)SRC
		CWDM SFP DWDM SFP	12.2(33)SRE1	12.2(33)SRE1
	7600-ES20-GE3CXL 7600-ES20-GE3C	SFP-GE-S SFP-GE-L SFP-GE-Z GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	12.2(33)SRB	12.2(33)SRB
		SFP-GE-T CWDM SFP	— 12.2(33)SRB3	12.2(33)SRB3
		GLC-BX-D GLC-BX-U DWDM SFP	12.2(33)SRD	12.2(33)SRD
		DWDM SFP (add.)	12.2(33)SRE	12.2(33)SRE

Table 14   **Router Support (continued)**

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Cisco 7600 Series Router (continued)	7600-ES+20G3C 7600-ES+20G3CXL 7600-ES+40G3C 7600-ES+40G3CXL	SFP-GE-T	—	12.2(33)SRD
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD SFP-GE-S SFP-GE-L SFP-GE-Z GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP	12.2(33)SRD	12.2(33)SRD
		DWDM SFP (add.)	12.2(33)SRE	12.2(33)SRE
	76-ES+T-20G 76-ES+T-40G	SFP-GE-T	—	12.2(33)SRD3
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD SFP-GE-S SFP-GE-L SFP-GE-Z GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP	12.2(33)SRD3	12.2(33)SRD3
		DWDM SFP (add.)	12.2(33)SRE	12.2(33)SRE
	76-ES+XC-20G3C 76-ES+XC-20G3CXL 76-ES+XC-40G3C 76-ES+XC-40G3CXL	SFP-GE-T	—	12.2(33)SRE
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD SFP-GE-S SFP-GE-L SFP-GE-Z GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP DWDM SFP (add.)	12.2(33)SRE	12.2(33)SRE

Table 14 *Router Support (continued)*

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Cisco 10000 Series Router	ESR-1GE	WS-G5484 WS-G5486 WS-G5487	—	Please see release notes
	ESR-HH-1GE	SFP-GE-T	—	12.0(23)S
		SFP-GE-S SFP-GE-L SFP-GE-Z	12.0(23)S	12.0(23)S
Cisco uBR10000 Series Router	UBR10-1GE	WS-G5484 WS-G5486 WS-G5487	—	Please see release notes
	ESR-HH-1GE	SFP-GE-T	—	12.3(13)BC
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD SFP-GE-S SFP-GE-L SFP-GE-Z	12.3(13)BC	12.3(13)BC
Cisco RF Gateway Series	RFGW-X4516-10GE	SFP-GE-S SFP-GE-L	12.2(44)SQ	12.2(44)SQ
	RFGW-DS48	SFP-GE-T	—	12.2(44)SQ
		SFP-GE-S SFP-GE-L	12.2(44)SQ	12.2(44)SQ
Cisco 10700 Series Internet Router	10720-GE-FE-TX 10720-GE-FE-TX-B	SFP-GE-T	—	12.0(27)S
		SFP-GE-S SFP-GE-L SFP-GE-Z	12.0(26)S	12.0(26)S
		CWDM SFP	12.0(31)S	12.0(31)S

Table 14   Router Support (continued)

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Cisco 12000 Series Router	10x1GE-SFP-LC-B	GLC-SX-MM GLC-LH-SM	—	12.0(21)S
	4GE-SFP-LC	GLC-SX-MM GLC-LH-SM GLC-ZX-SM	—	12.0(25)S
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD		12.0(32)S
		CWDM SFP		
	EPA-3GE-SX/LH-LC	GLC-SX-MM GLC-LH-SM GLC-ZX-SM	—	12.0(23)S
Shared Port Adapters (SPAs)	SPA-2X1GE SPA-5X1GE SPA-8X1GE SPA-10X1GE SPA-5X1GE-V2 SPA-8X1GE-V2 SPA-10X1GE-V2	SFP-GE-T SFP-GE-S SFP-GE-L SFP-GE-Z CWDM SFP DWDM SFP GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	SPA software support is determined by the platform on which the SPA is installed. Refer to the SPA release notes for the correct software release.	
	SPA-2X1GE-V2	SFP-GE-S SFP-GE-L SFP-GE-Z CWDM SFP DWDM SFP GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD		

Table 14 Router Support (continued)

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
CRS Router Series	CRS-16-RP	GLC-LH-SM GLC-LH-SMD	—	XR 2.0
	CRS-16-RP-B	GLC-LH-SM GLC-LH-SMD	—	XR 3.3
	CRS-FCC-SC-22GE	GLC-LH-SM GLC-LH-SMD	—	XR 3.4.1
	42-1GE 20-1GE-FLEX	SFP-GE-T (1000BASE-T)	—	XR 3.8.1
		SFP-GE-S GLC-SX-MMD SFP-GE-L GLC-LH-SMD SFP-GE-Z	XR 3.8.1	XR 3.8.1
	CRS-8-PRP-6G CRS-8-PRP-12G	GLC-LH-SM GLC-LH-SMD	—	XR 4.0.2
ASR 901 Series Router	A901-12C-F-D A901-12-C-FT-D	GLC-T SFP-GE-T GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-SX-MM-RGD GLC-LX-SM-RGD	—	15.1(2)SNG
		SFP-GE-S SFP-GE-L SFP-GE-Z	15.1(2)SNI	15.1(2)SNG
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD GLC-BX-D GLC-BX-U GLC-EX-SMD CWDM SFP DWDM SFP DWDM SFP (add.)	15.2(2)SNI	15.2(2)SNG

Table 14 **Router Support (continued)**

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
ASR 901 Series Router (continued)	A901-4C-F-D A901-4-C-FT-D A901-6CZ-F-D A901-6-CZ-FT-D A901-6CZ-F-A A901-6-CZ-FT-A	GLC-T SFP-GE-T GLC-SX-MM GLC-LH-SM GLC-ZX-SM GLC-SX-MM-RGD GLC-LX-SM-RGD	—	15.2(2)SNH1
		SFP-GE-S SFP-GE-L SFP-GE-Z GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD GLC-BX-D GLC-BX-U GLC-EX-SMD CWDM SFP DWDM SFP DWDM SFP (add.)	15.2(2)SNH1	15.2(2)SNH1
Cisco ASR 903 Series	A900-IMA8S	SFP-GE-T GLC-SX-MM-RGD GLC-LX-SM-RGD GLC-ZX-SM-RGD	—	XE 3.5.0S
		GLC-BX-D GLC-BX-U GLC-EX-SMD	XE 3.5.0S	XE 3.5.0S
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD CWDM SFP DWDM SFP DWDM SFP (add.)	XE 3.6.0S	XE 3.6.0S

Cisco Gigabit Ethernet Transceiver Modules Compatibility Matrix

Table 14   Router Support (continued)

| Platform | Switch or Module | Transceiver Module | Minimum Software Release Required | |
			DOM Support	Cisco IOS Release
ASR 1000 Series Router	ASR1001 ASR1002 ASR1002-F ASR1002-X	SFP-GE-T	—	XE 2.1
		SFP-GE-S SFP-GE-L SFP-GE-Z CWDM SFP DWDM SFP	XE 2.1	XE 2.1
		GLC-BX-D GLC-BX-U	XE 2.5	XE 2.5
		GLC-SX-MMD GLC-LH-SMD GLC-ZX-SMD	XE 3.4S	XE 3.4S
		GLC-EX-SMD	XE 3.5S	XE 3.5S
	ASR 1000 platform with SPA cards	Software support on the ASR 1000 modular platforms is determined by the platform on which the SPA is installed. Refer to the SPA release notes for the correct software release. http://www.cisco.com/en/US/docs/interfaces_modules/shared_port_adapters/configuration/ASR1000/ASRspasw.pdf		
ASR 9000 Series Router	A9K-40GE-B A9K-40GE-E	SFP-GE-T (10/100/1000)	—	XR 3.7.3
		SFP-GE-S SFP-GE-L SFP-GE-Z GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP	XR 3.7.3	XR 3.7.3
		DWDM SFP (add.)	XR 3.9.0	XR 3.9.0
		GLC-SX-MMD GLC-LH-SMD GLC-EX-SMD GLC-ZX-SMD	XR 4.1.1	XR 4.1.1

Table 14 **Router Support (continued)**

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
ASR 9000 Series Router (continued)	A9K-2T20GE-B A9K-2T20GE-E A9K-2T20GE-L A9K-40GE-L	SFP-GE-T (10/100/1000)	—	XR 3.9.0
		SFP-GE-S SFP-GE-L SFP-GE-Z GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP DWDM SFP (add.)	XR 3.9.0	XR 3.9.0
		GLC-SX-MMD GLC-LH-SMD GLC-EX-SMD GLC-ZX-SMD	XR 4.1.1	XR 4.1.1
	A9K-MPA-20X1GE	SFP-GE-T (10/100/1000) GLC-LH-SM	—	XR 4.2.0
		SFP-GE-S SFP-GE-L SFP-GE-Z GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP DWDM SFP (add.) GLC-SX-MMD GLC-LH-SMD GLC-EX-SMD GLC-ZX-SMD	XR 4.2.0	XR 4.2.0
	A9K-RSP440-TR A9K-RSP440-SE	SFP-GE-T (10/100/1000)	—	XR 4.2.1
		SFP-GE-S SFP-GE-L SFP-GE-Z GLC-BX-D GLC-BX-U CWDM SFP DWDM SFP DWDM SFP (add.) GLC-SX-MMD GLC-LH-SMD GLC-EX-SMD GLC-ZX-SMD	XR 4.2.1	XR 4.2.1

Table 14   *Router Support (continued)*

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
ASR 9000 Series Router (EOBC-supported optics)	ASR-9001 ASR-9001-S	SFP-GE-S	XR 4.2.1	XR 4.2.1
		GLC-SX-MMD GLC-LH-SMD	XR 4.3.0	XR 4.3.0
	ASR-9922-RP-SE ASR-9922-RP-TR	SFP-GE-S GLC-SX-MMD GLC-LH-SMD	XR 4.3.1	XR 4.3.1
	A9K-RSP440-TR A9K-RSP440-SE	SFP-GE-S	XR 4.2.1	XR 4.2.1
		GLC-SX-MMD	XR 4.3.0	XR 4.3.0
		GLC-LH-SMD	XR 4.2.3	XR 4.2.3
ASR9000v Series Router	ASR-9000V-AC ASR-9000V-DC-A ASR-9000V-DC-E	SFP-GE-T SFP-GE-S SFP-GE-L SFP-GE-Z GLC-BX-D GLC-BX-U GLC-SX-MMD GLC-LH-SMD GLC-EX-SMD GLC-ZX-SMD CWDM SFP DWDM SFP DWDM SFP (add.)	XR 5.1.0	XR 5.1.0
		GLC-T	—	XR 4.2.3
Cisco MWR 2941 Mobile Wireless Routers	MWR-2941-DC	GLC-SX-MMD GLC-LH-SMD SFP-GE-S SFP-GE-L SFP-GE-Z	12.4(19)MR1	12.4(19)MR1
		GLC-SX-MM-RGD GLC-LX-SM-RGD GLC-ZX-SM-RGD	—	12.4(19)MR1
		SFP-GE-T	—	12.4(19)MR3/ 12.2(33)MRA
		CWDM SFP DWDM SFP	12.4(19MR3/ 12.2(33)MRA	12.4(19MR3/ 12.2(33)MRA
		GLC-BX-D GLC-BX-U	12.2(33)MRB/ 12.4(20)MRA	12.2(33)MRB/ 12.4(20)MRA
		GLC-EX-SMD	15.1(01)MR	15.1(01)MR

Table 15   Appliance Support

Platform	Switch or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
ASA5500 Series appliances	SSM-4GE	GLC-SX-MM GLC-LH-SM GLC-SX-MMD GLC-LH-SMD	—	ASA 7.0
NAM 2200 Series appliances	NAM2204-SFP	GLC-T (1000BASE-T) GLC-SX-MM GLC-LH-SM	—	NAM 4.0

Table 16   Wireless LAN Controllers Support

Platform	Controller or Module	Transceiver Module	Minimum Software Release Required	
			DOM Support	Cisco IOS Release
Cisco 5700 WLC Series	AIR-CT5760-25-K9 AIR-CT5760-50-K9 AIR-CT5760-100-K9 AIR-CT5760-250-K9 AIR-CT5760-500-K9 AIR-CT5760-1K-K9 AIR-CT5760-HA-K9	GLC-T (10/100/1000) GLC-LH-SM GLC-LH-SMD GLC-SX-MM GLC-SX-MMD GLC-EX-SMD (CPN 10-2624-01 or later only) GLC-ZX-SM GLC-ZX-SMD GLC-BX-D GLC-BX-U CWDM SFP SFP-GE-S SFP-GE-L SFP-GE-T SFP-GE-Z DWDM SFP DWDM SFP (add.)	XE 3.2.0SE	XE 3.2.0SE

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