Ethernet Switching Modules Overview
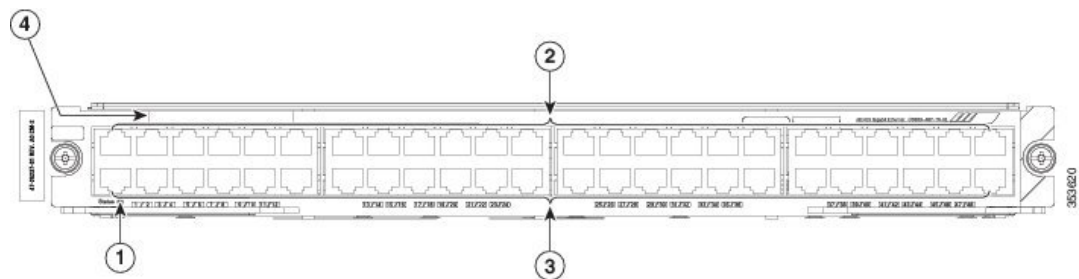
10/100/1000 Copper Ethernet Modules

C6800-48P-TX and C6800-48P-TX-XL Ethernet Modules

C6800-48P-TX and C6800-48P-TX-XL Ethernet modules provide 48 10/100/1000-Mbps full- or half-duplex ports.

Figure 1: C6800-48P-TX and C6800-48P-TX-XL Ethernet Module Front Panel

1	Status LED	3	Even numbered ports
2	Odd numbered ports	4	RFID

The sticker on the module faceplate identifies it as either a C6800-48P-TX or a C6800-48P-TX-XL depending on whether a WS-F6K-DFC4-A or WS-F6K-DFC4-AXL daughter card is installed on the module.

Table 1: C6800-48P-TX and C6800-48P-TX-XL Ethernet Module Features

Feature	Description
Ports per module	• 48 ports, numbered left to right and top to bottom • 4 port groups. Port ranges per port group: • 1 to 12 • 13 to 24 • 25 to 36 • 37 to 48
Port connector type	RJ 45
Cabling distance	328 ft (100 m) over Category 5, 5e, and 6 UTP/STP cable
Buffer size	1.5 MB per port. 18 MB per port group.
QoS	• Number of egress queues: 4 • Number of ingress queues: 2 • Number of thresholds per egress queue: 1 or 2 • Number of thresholds per ingress queue: 8
Maximum frame size	Up to 9216 bytes per frame
Module oversubscription rate	1.2:1
Supervisor engine support	Supervisor Engine 2T-10GE Supervisor Engine 6T
Software support	With Supervisor Engine 2T-10GE —Cisco IOS Release 15.2(1)SY or later With Supervisor Engine 6T - Cisco IOS Release 15.3(1)SY or later
Queues per port	With a WS-F6K-DFC4-A / AXL daughter card: • Tx—1p3q8t • Rx—2q8t

Feature	Description
Chassis and slot restrictions	• Module operation—The C6800-48P-TX/TX-XL operates only in a Cisco Catalyst 6807-XL and a Cisco Catalyst 6500 E-series chassis equipped with a Supervisor Engine 2T-10GE or Supervisor Engine 6T. • Module installation — Modules must be installed in adjacent slots. To maintain adequate air flow through the chassis, install a switching-module filler plate (Cisco part number WS-X6K-SLOT-CVR-E=) in unused slots, rather than a blank slot cover (Cisco part number WS-X6K-SLOT-CVR=). • Slot restrictions—In the following switch chassis, you cannot install Ethernet modules in slots meant for supervisor engines: • In a Cisco Catalyst 6807-XL, the supervisor engine slots are 3 and 4. • In a Cisco Catalyst 6513 E-series chassis, the supervisor engine slots are 7 and 8. This restriction does not apply to any other 6500 E-series chassis.
Fabric connection	Dual switch-fabric connections: • Fabric channel 1—Ports 25 to 48. • Fabric channel 2—Ports 1 to 24.
Fabric channel speed	20 Gb/sec
Module upgrade availability	PoE— Not supported. Distributed forwarding support— C6800-48P-TX ships with a factory-installed DFC4-A and C6800-48P-TX-XL ships with a factory-installed DFC4-AXL daughter card installed. The modules are not field upgradable.
Pluggable transceivers	Not supported.
TDR support	Supported.

Related Topics

1-Gigabit Pluggable Ethernet Modules

C6800-48P-SFP and C6800-48P-SFP-XL Ethernet Modules

C6800-48P-SFP and C6800-48P-SFP-XL Ethernet modules provide 48 1-Gbps full- or half-duplex ports.

Figure 2: C6800-48P-SFP and C6800-48P-SFP-XL Ethernet Module Front Panel
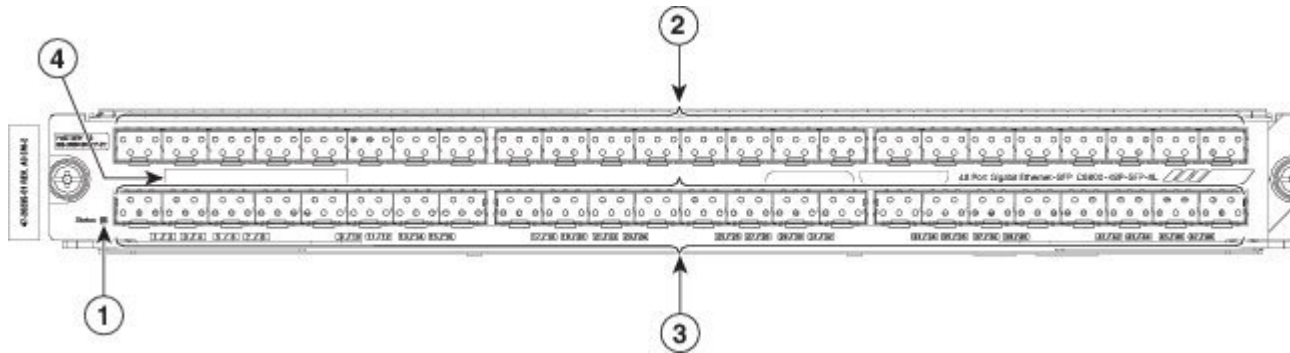
1	Status LED	3	Even numbered ports
2	Odd numbered ports	4	RFID

The sticker on the module faceplate identifies it as either a C6800-48P-SFP and C6800-48P-SFP-XL depending on whether a WS-F6K-DFC4-A or WS-F6K-DFC4-AXL daughter card is installed on the module.

Table 2: C6800-48P-SFP and C6800-48P-SFP-XL Ethernet Module Features

Feature	Description
Ports per module	48 ports. Ports are numbered left to right and top to bottom. 4 port groups. Port ranges per port group: • 1 to 12 • 13 to 24 • 25 to 36 • 37 to 48
Port connector type	LC (optical) or RJ-45 (copper) depending on the SFP transceiver installed.

Feature	Description
Cabling distance	Depends on the SFP transceiver installed in the module port. For cabling distance information, refer to the installation guides for Cisco Transceiver Modules at: Install and Upgrade Guides
Buffer size	1.5 MB per port 18 MB per port group
QoS	Number of egress queues—4 Number of ingress queues—2 Number of thresholds per egress queue—1 or 2 Number of thresholds per ingress queue—8
Maximum frame size	Up to 9216 bytes per frame
Module oversubscription rate	1.2:1
Supervisor engine support	Supervisor Engine 2T-10GE Supervisor Engine 6T
Software support	With Supervisor Engine 2T-10GE —Cisco IOS Release 15.2(1)SY or later With Supervisor Engine 6T - Cisco IOS Release 15.3(1)SY or later
Queues per port	With a WS-F6K-DFC4-A / AXL daughter card: • Tx—1p3q8t • Rx—2q8t

Feature	Description

Chassis and slot restrictions	• Module installation — Modules must be installed in adjacent slots. To maintain adequate air flow through the chassis, install a switching-module filler plate (Cisco part number WS-X6K-SLOT-CVR-E=) in unused slots, rather than a blank slot cover (Cisco part number WS-X6K-SLOT-CVR=).
	
	• Module operation — C6800-48P-SFP/ SFP-XL operates only in a Cisco Catalyst 6807-XL and a Cisco Catalyst 6500 E-series chassis equipped with a Supervisor Engine 2T-10GE or Supervisor Engine 6T.
	
	• Slot restrictions—In the following switch chassis, you cannot install Ethernet modules in slots meant for supervisor engines:
	
	  • In a Cisco Catalyst 6807-XL, the supervisor engine slots are 3 and 4.
	
	  • In a Cisco Catalyst 6513 E-series chassis, the supervisor engine slots are 7 and 8. This restriction does not apply to any other 6500 E-series chassis.

Fabric connection	Dual switch-fabric connections: • Fabric channel 1—Even ports 2 to 48. • Fabric channel 2—Odd ports 1 to 47.
Fabric channel speed	20 Gb/sec
Module upgrade availability	PoE support—Not supported. Distributed forwarding support— C6800-48P-SFP ships with a factory-installed DFC4-A and C6800-48P-SFP-XL ships with a factory-installed DFC4-AXL daughter card. The modules are not field upgradable.
Pluggable transceivers	For SFP transceivers currently supported, refer to the Cisco Transceiver Modules compatibility matrices at: Compatibility Information
Digital Optical Monitoring (DOM) support	DOM is hardware ready.

Related Topics

Installing an Ethernet Switching Module

C6800-48P-SFP and C6800-48P-SFP-XL Module Specifications

10-Gigabit Pluggable Ethernet Modules
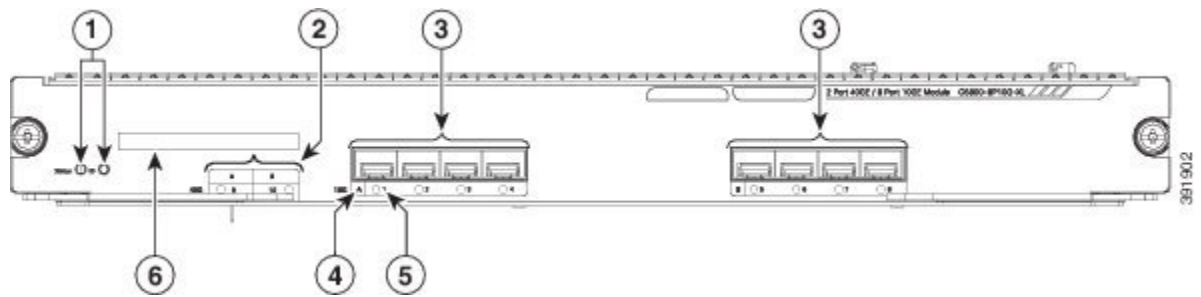
C6800-8P10G and C6800-8P10G-XL Ethernet Modules

The C6800-8P10G and C6800-8P10G-XL Ethernet modules provide two 40G, eight 10G, eight 1G full-duplex transceiver ports.

Figure 3: C6800-8P10G-XL Ethernet Module Front Panel

1	Status and ID LEDs	4	Port group ID
2	40G port IDs	5	Port number
3	10G ports (A total of two port groups)	6	RFID

The sticker on the module faceplate identifies it as either a C6800-8P10G or a C6800-8P10G-XL depending on whether a WS-F6K-DFC4-E or WS-F6K-DFC4-EXL daughter card is installed on the module.

Table 3: C6800-8P10G and C6800-8P10G-XL Ethernet Module Features

Feature	Description

Ports per module	• 8 ports—Eight 1G ports, or eight 10G ports, or two 40G ports. [1]
	
	 • Ports are numbered left to right.
	
	 • 2 port groups. Port ranges per port group:
	
	  • 1 to 4
	
	  • 5 to 8

Feature	Description
Port connector type	LC (optical) or RJ-45 (copper) depending on the SFP transceiver installed. Depending on the distance between the end ports, different QSFP+ transceivers can be used. For more information refer to the Cisco 4 x SFP10G to QSFP Reverse Adapter Data Sheet.
Cabling distance	Depends on the SFP transceiver installed in the module port. For cabling distance information, refer to the installation guides for Cisco Transceiver Modules at: Install and Upgrade Guides
Buffer size	Ingress buffer size: • 2.5 MB per port • 10 MB per port group • Total—40 MB Egress buffer size: • 500 MB per port • 2 GB per port group • Total—8 GB
QoS	• Number of egress queues—8 • Number of ingress queues—8 • Number of thresholds per egress queue—4 • Number of thresholds per ingress queue—4
Maximum frame size	Up to 9216 bytes per frame
Module oversubscription rate	1:1 (When all eight 10G ports are used.)
Supervisor engine support	• Supervisor Engine 2T-10GE • Supervisor Engine 6T
Software support	• With Supervisor Engine 2T-10GE —Cisco IOS Release 15.2(1)SY or later • With Supervisor Engine 6T – Cisco IOS Release 15.3(1)SY or later

Feature	Description
Queues per port	With a WS-F6K-DFC4-E/ EXL daughter card: • Tx—1p7q4t • Rx—1p7q4t
Chassis and slot restrictions	The following restrictions apply to module installation and operation: • Module installation—Modules must be installed in adjacent slots. To maintain adequate air flow through the chassis, install a switching-module filler plate (Cisco part number WS-X6K-SLOT-CVR-E=) in unused slots, rather than a blank slot cover (Cisco part number WS-X6K-SLOT-CVR=). • Module operation—The C6800-8P10G/ 10G-XL operates only in a Cisco Catalyst 6807-XL and a Cisco Catalyst 6500 E-series chassis equipped with a Supervisor Engine 2T-10GE or Supervisor Engine 6T. • Slot restrictions—In the following switch chassis, you cannot install Ethernet modules in slots meant for supervisor engines: • In a Cisco Catalyst 6807-XL, the supervisor engine slots are 3 and 4. • In a Cisco Catalyst 6513 E-series chassis, the supervisor engine slots are 7 and 8. This restriction does not apply to any other 6500 E-series chassis.
Fabric connection	For Cisco Catalyst 6807-XL switches: • Fabric channel 0 : Ports 1 to 4 • Fabric channel 1: Ports 5 to 8 For Cisco Catalyst 6500-E series switches: • Fabric channel 0 : Ports 1 to 4 • Fabric channel 1: Ports 5 to 8
Fabric channel speed	In a Cisco Catalyst 6807-XL chassis—80 GB per second In a Cisco Catalyst 6500-E series chassis—80 GB per second

Feature	Description
Module upgrade availability	PoE—Not supported Distributed forwarding support— The C6800-8P10G module ships with a factory-installed DFC4-E and the C6800-8P10G-XL module ships with a factory-installed DFC4-EXL daughter card. The modules are not field upgradable.
Pluggable transceivers support	These Ethernet modules support 10G SFP+ modules and 1G SFP modules. For SFP transceivers currently supported, refer to the Cisco Transceiver Modules compatibility matrices at: Compatibility Information. For QSFP+ Transceiver Modules supported, refer to the Cisco 4 x SFP10G to QSFP Reverse Adapter Data Sheet.
TDR support	Supported with GLC-T (1G Copper SFP) transceivers
Digital Optical Monitoring (DOM) support	Supported with select 1G and 10G Fiber SFP/SFP+ transceivers. • The DOM-supported 1G transceivers are—GLC-BX-U, GLC-BX-D, GLC-SX-MMD, GLC-EX-SMD, GLC-LH-SMD, GLC-ZX-SMD, SFP-DWDM. • The DOM-supported 10G Fiber SFP/SFP+ transceivers are listed at Cisco Digital Optical Monitoring Compatibility Matrix.

[1] Two 40G ports in C6800-8P10G models. To convert the port to 40G ports, refer to the "Interface Configuration" section of 15.3SY Supervisor Engine 6T Software Configuration Guide.

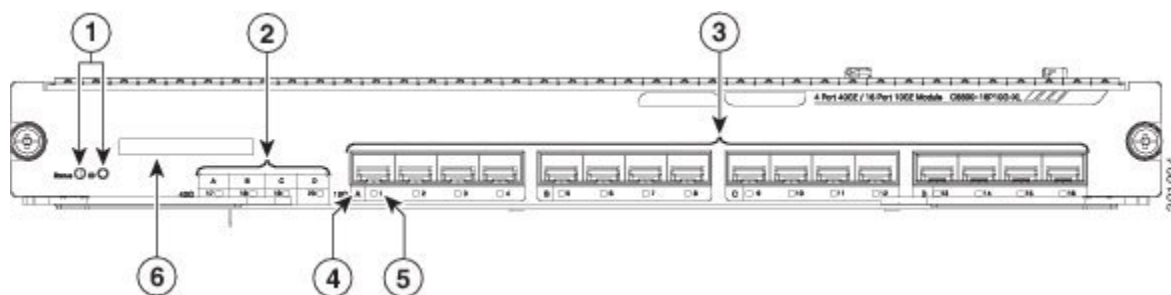**Related Topics**

Installing an Ethernet Switching Module

C6800-8P10G and C6800-8P10G-XL Module Specifications

Ethernet Module LEDs

C6800-16P10G and C6800-16P10G-XL Ethernet Modules

The C6800-16P10G and C6800-16P10G-XL Ethernet modules provide four 40G, sixteen 10G or sixteen 1G transceiver ports.

Figure 4: C6800-16P10G-XL Ethernet Module Front Panel

1	Status and ID LEDs	4	Port group ID
2	40G port IDs	5	Port number
3	10G ports (A total of four port groups)	6	RFID

The sticker on the module faceplate identifies it as either a C6800-16P10G or a C6800-16P10G-XL depending on whether a WS-F6K-DFC4-E or WS-F6K-DFC4-EXL daughter card is installed on the module.

Table 4: C6800-16P10G and C6800-16P10G-XL Ethernet Module Features

Feature	Description

Ports per module	• 16 ports—Sixteen 1G ports, or sixteen 10G ports, or four 40G ports [2].
	
	• Ports are numbered left to right.
	
	• 2 port groups. Port ranges per port group:
	    • 1 to 8
	    • 9 to 16

Port connector type	LC (optical) or RJ-45 (copper) depending on the SFP transceiver installed. Depending on the distance between the end ports, different QSFP+ transceivers can be used. For more information refer to the Cisco 4 x SFP10G to QSFP Reverse Adapter Data Sheet.

Feature	Description
Cabling distance	Depends on the SFP transceiver installed in the module port. For cabling distance information, refer to the installation guides for Cisco Transceiver Modules at: Install and Upgrade Guides
Buffer size	Ingress buffer size: • Per port (over subscription mode)—1.25 MB • Per port (transparent mode)—2.5 MB • 10 MB per port-group • Total—40 MB Egress buffer size: • Per port (over subscription mode)—250 MB • Per port (transparent mode)—500 MB • 2 GB per port-group • Total—8 GB
QoS	• Number of egress queues: 8 • Number of ingress queues: 8 • Number of thresholds per egress queue: 4 • Number of thresholds per ingress queue: 4
Maximum frame size	Up to 9216 bytes per frame
Module oversubscription rate	2:1 (When all sixteen 10G ports are used.)
Supervisor engine support	• Supervisor Engine 2T-10GE • Supervisor Engine 6T
Software support	• With Supervisor Engine 2T-10GE —Cisco IOS Release 15.2(1)SY or later • With Supervisor Engine 6T – Cisco IOS Release 15.3(1)SY or later
Queues per port	With a WS-F6K-DFC4-E/ EXL daughter card: • Tx—1p7q4t • Rx—2p6q4t

Feature	Description

Chassis and slot restrictions	The following restrictions apply to module installation and operation:
	
	• Module installation—Modules must be installed in adjacent slots. To maintain an adequate air flow through the chassis, install a switching-module filler plate (Cisco part number WS-X6K-SLOT-CVR-E=) in unused slots, rather than a blank slot cover (Cisco part number WS-X6K-SLOT-CVR=).
	
	• Module operation—C6800-16P10G/ 10G-XL operates only in a Cisco Catalyst 6807-XL and a Cisco Catalyst 6500 E-series chassis equipped with a Supervisor Engine 2T-10GE or Supervisor Engine 6T.
	
	• Slot restrictions—In the following switch chassis, you cannot install Ethernet modules in slots meant for supervisor engines:
	
	  • In a Cisco Catalyst 6807-XL, the supervisor engine slots are 3 and 4.
	
	  • In a Cisco Catalyst 6513 E-series chassis, the supervisor engine slots are 7 and 8. This restriction does not apply to any other 6500 E-series chassis.

Fabric connection	For Cisco Catalyst 6807-XL switches: • Fabric channel 0 : Ports 1 to 8 • Fabric channel 1: Ports 9 to 16 For Cisco Catalyst 6500-E series switches: • Fabric channel 0 : Ports 1 to 8 • Fabric channel 1: Ports 9 to 16
Fabric channel speed	In a Cisco Catalyst 6807-XL chassis—80 GB per second In a Cisco Catalyst 6500-E series chassis—80 GB per second
Module upgrade availability	PoE—Not supported Distributed forwarding— The C6800-16P10G module ships with a factory-installed DFC4-E and the C6800-16P10G-XL module ships with a factory-installed DFC4-EXL daughter card. The modules are not field upgradable.

Feature	Description
Pluggable transceivers support	These Ethernet modules support 10G SFP+ modules and 1G SFP modules. For SFP transceivers currently supported, refer to the Cisco Transceiver Modules compatibility matrices at: Compatibility Information. For QSFP+ Transceiver Modules supported, refer to the Cisco 4 x SFP10G to QSFP Reverse Adapter Data Sheet.
TDR support	Supported with GLC-T (1G Copper SFP) transceivers
Digital Optical Monitoring (DOM) support	• The DOM-supported 1G transceivers are—GLC-BX-U, GLC-BX-D, GLC-SX-MMD, GLC-EX-SMD, GLC-LH-SMD, GLC-ZX-SMD, SFP-DWDM. • The DOM-supported 10G Fiber SFP/SFP+ transceivers are listed at Cisco Digital Optical Monitoring Compatibility Matrix.

2 Four 40G ports in C6800-16P10G models. To convert the port to 40G ports, refer to the "Interface Configuration" section of 15.3SY Supervisor Engine 6T Software Configuration Guide.

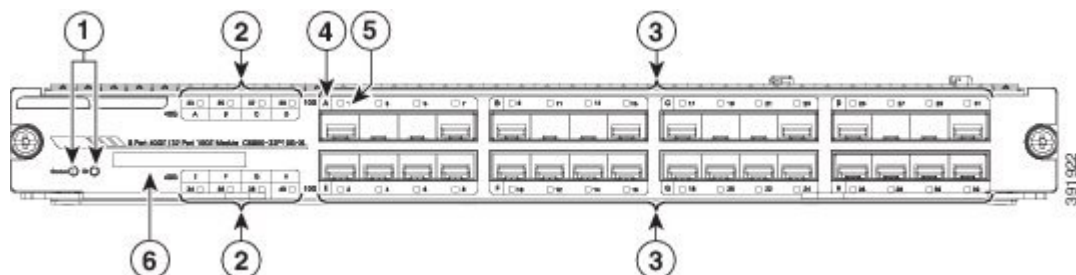**Related Topics**

Installing an Ethernet Switching Module

C6800-16P10G and C6800-16P10G-XL Module Specifications

Ethernet Module LEDs

C6800-32P10G and C6800-32P10G-XL Ethernet Modules

The C6800-32P10G and C6800-32P10G-XL Ethernet modules provide eight 40G, thirty two 1G or thirty two 10G transceiver ports.

Figure 5: C6800-32P10G-XL Ethernet Module Front Panel

1	Status and ID LEDs	4	Port group ID
2	40G port IDs	5	Port number

3	10G ports (A total of eight port groups)	6	RFID

The sticker on the module faceplate identifies it as either a C6800-32P10G or a C6800-32P10G-XL depending on whether a WS-F6K-DFC4-E or WS-F6K-DFC4-EXL daughter card is installed on the module.

Table 5: C6800-32P10G and C6800-32P10G-XL Ethernet Module Features

Feature	Description

Ports per module	• 32 ports—Thirty-two 1G ports, or thirty-two 10G ports, or eight 40G ports[3].
	
	 • Ports are numbered left to right.
	
	     • The top row has odd numbered ports 1 to 31.
	
	     • The bottom row has even numbered ports 2 to 32.
	
	 • 4 port groups. Port ranges per port group:
	
	     • 1, 3, 5, 7, 9,11, 13, 15
	
	     • 2, 4, 6, 8, 10, 12, 14, 16
	
	     • 17, 19, 21, 23, 25, 27, 29, 31
	
	     • 18, 20, 22, 24, 26, 28, 30, 32

Port connector type	LC (optical) or RJ-45 (copper) depending on the SFP transceiver installed. Depending on the distance between the end ports, different QSFP+ transceivers can be used. For more information, refer to the Cisco 4 x SFP10G to QSFP Reverse Adapter Data Sheet.
Cabling distance	Depends on the SFP transceiver installed in the module port. For cabling distance information, refer to the installation guides for Cisco Transceiver Modules at: Install and Upgrade Guides

Feature	Description
Buffer size	Ingress buffer size: • Per port (over subscription mode)—1.25 MB • Per port (transparent mode)—2.5 MB • 10 MB per port-group • Total buffer—40 MB Egress buffer size: • Per port (over subscription mode)—250 MB • Per port (transparent mode)—500 MB • 2 GB per port-group • Total buffer—8 GB
QoS	• Number of egress queues: 8 • Number of ingress queues: 8 • Number of thresholds per egress queue: 4 • Number of thresholds per ingress queue: 4
Maximum frame size	Up to 9216 bytes per frame
Module oversubscription rate	2:1 oversubscription in a Cisco Catalyst 6807-XL chassis. (When all thirty-two 10G ports are used.) 4:1 oversubscription in a Cisco Catalyst 6500 E-series chassis.(When all thirty-two 10G ports are used.)
Supervisor engine support	• Supervisor Engine 2T-10GE • Supervisor Engine 6T
Software support	• With Supervisor Engine 2T-10GE —Cisco IOS Release 15.2(1)SY or later • With Supervisor Engine 6T – Cisco IOS Release 15.3(1)SY or later
Queues per port	With a WS-F6K-DFC4-E/ / EXL daughter card: • Tx—1p7q4t • Rx—2p6q4t

Feature	Description

Chassis and slot restrictions	The following restrictions apply to module installation and operation:
	
	• Module installation—Modules must be installed in adjacent slots. To maintain an adequate air flow through the chassis, install a switching-module filler plate (Cisco part number WS-X6K-SLOT-CVR-E=) in unused slots, rather than a blank slot cover (Cisco part number WS-X6K-SLOT-CVR=).
	
	• Module operation—C6800-32P10G/ 10G-XL operates only in a Cisco Catalyst 6807-XL and a Cisco Catalyst 6500 E-series chassis equipped with a Supervisor Engine 2T-10GE or Supervisor Engine 6T.
	
	• Slot restrictions—In the following switch chassis, you cannot install Ethernet modules in slots meant for supervisor engines:
	
	    • In a Cisco Catalyst 6807-XL, the supervisor engine slots are 3 and 4.
	
	    • In a Cisco Catalyst 6513 E-series chassis, the supervisor engine slots are 7 and 8. This restriction does not apply to any other 6500 E-series chassis.

Fabric connection	For Cisco Catalyst 6807-XL switches: • Fabric channel 0 : Ports 1 to 8 • Fabric channel 1: Ports 9 to 15 • Fabric channel 2 : Ports 17 to 24 • Fabric channel 3 : Ports 25 to 32 For Cisco Catalyst 6500-E series switches: • Fabric channel 0 : Ports 1 to 16 • Fabric channel 1: Ports 17 to 32
Fabric channel speed	In a Cisco Catalyst 6807-XL chassis—160 GB per second In a Cisco Catalyst 6500-E series chassis—80 GB per second
Module upgrade availability	PoE—Not supported Distributed forwarding— The C6800-32P10G module ships with a factory-installed DFC4-E and the C6800-32P10G-XL module ships with a factory-installed DFC4-EXL daughter card. The modules are not field upgradable.

Feature	Description
Pluggable transceivers support	These Ethernet modules support 10G SFP+ modules and 1G SFP modules. For SFP transceivers currently supported, refer to the Cisco Transceiver Modules compatibility matrices at: Compatibility Information. For QSFP+ Transceiver Modules supported, refer to the Cisco 4 x SFP10G to QSFP Reverse Adapter Data Sheet.
TDR support	Supported with GLC-T (1G Copper SFP) transceivers
Digital Optical Monitoring (DOM) support	• The DOM-supported 1G transceivers are—GLC-BX-U, GLC-BX-D, GLC-SX-MMD, GLC-EX-SMD, GLC-LH-SMD, GLC-ZX-SMD, SFP-DWDM. • The DOM-supported 10G Fiber SFP/SFP+ transceivers are listed at Cisco Digital Optical Monitoring Compatibility Matrix.

[3] Eight 40G ports in C6800-32P10G models. To convert the port to 40G ports, refer to the "Interface Configuration" section of 15.3SY Supervisor Engine 6T Software Configuration Guide.

Related Topics

> Installing an Ethernet Switching Module
> C6800-32P10G and C6800-32P10G-XL Module Specifications
> Ethernet Module LEDs

40-Gigabit Pluggable Ethernet Modules

C6800-8P40G and C6800-8P40G-XL Ethernet Modules

The C6800-8P40G and C6800-8P40G-XL Ethernet modules provide eight 40 Gigabit Ethernet QSFP ports.

Figure 6: C6800-8P40G-XL Ethernet Module Front Panel

1	40G ports	3	RFID
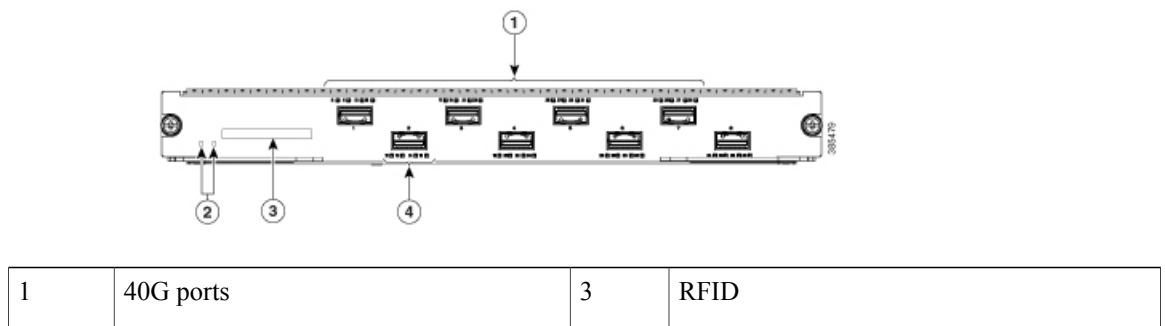
2	Status and ID LEDs	4	40G port IDs

The sticker on the module faceplate identifies it as either a C6800-8P40G or a C6800-8P40G-XL depending on whether a C6800-DFC or C6800-DFC-XL is installed on the module.

Table 6: C6800-8P40G and C6800-8P40G-XL Ethernet Module Features

Feature	Description
Ports per module	- Eight 40 Gigabit Ethernet ports. - Ports are numbered left to right. - The top row has odd numbered ports 1, 3, 5, and 7. - The bottom row has even numbered ports 2, 4, 6 and 8. 4 port-groups with 2 port-sets per port group Port ranges per port group in 40G mode: - Port-group 1 - 1 and 3 - Port-group 2 - 2 and 4 - Port-group 3 - 5 and 7 - Port-group 4 - 6 and 8
Port connector type	LC (optical) connectors. Depending on the distance between the end ports, different QSFP+ transceivers can be used. For more information, refer to the Cisco 40GBASE QSFP Modules Data Sheet.
Cabling distance	Depends on the QSFP+ transceiver installed in the module port. For cabling distance information, refer to the installation guides for Cisco Transceiver Modules at: Install and Upgrade Guides

Feature	Description
Buffer size	Ingress buffer size - 40G Mode: • Per-port (over subscription mode)—5 MB • Per-port (performance mode)—10 MB • 20 MB per port-group • Total buffer—80 MB Egress buffer size - 40G Mode: • Per-port (over subscription mode) - 1 GB • Per-port (performance mode) - 2 GB • 4 GB per port-group • Total buffer -16 GB
QoS	• Number of egress queues: 8 • Number of ingress queues: 8 • Number of thresholds per egress queue: 4 • Number of thresholds per ingress queue: 4
Maximum frame size	Up to 9216 bytes per frame
Module oversubscription rate	2:1 oversubscription in a Cisco Catalyst 6807-XL chassis. (When all eight ports are used.)
Supervisor engine support	• Supervisor Engine 2T-10GE/2T-10GE-XL • Supervisor Engine 6T/6T-XL
Software support	• With Supervisor Engine 2T-10GE/2T-10GE-XL - Cisco IOS Release 15.5(1)SY or later • With Supervisor Engine 6T/6T-XL – Cisco IOS Release 15.5(1)SY or later

Feature	Description

Queues per port	With a C6800-DFC or C6800-DFC-XL:
	
	• Receive:
	
	    • 1p7q4t (default)
	
	    • 2p6q4t (configurable)
	
	• Transmit:
	
	    • 1p7q4t (default)
	
	    • 2p6q4t (configurable)

Chassis and slot restrictions	The following restrictions apply to module installation and operation: • Module installation—Modules must be installed in adjacent slots. To maintain an adequate airflow through the chassis, install a blank slot cover (Cisco part number C6800-XL-CVR-E=) in unused slots. • Module operation—C6800-8P40G/ 40G-XL operates only in a Cisco Catalyst 6807-XL chassis equipped with a Supervisor Engine 2T-10GE/2T-10GE-XL or Supervisor Engine 6T/6T-XL. • Slot restrictions—In the following switch chassis, you cannot install Ethernet modules in slots meant for supervisor engines: In a Cisco Catalyst 6807-XL, the supervisor engine slots are 3 and 4.
Fabric connection	For Cisco Catalyst 6807-XL switches: • Fabric channel 0: Ports 1 and 2 • Fabric channel 1: Ports 3 and 4 • Fabric channel 2: Ports 5 and 6 • Fabric channel 3: Ports 7 and 8
Fabric channel speed	In a Cisco Catalyst 6807-XL chassis—160 GB per second
Module upgrade availability	PoE—Not supported Distributed forwarding— The C6800-8P40G module ships with an embedded 6800-DFC and the C6800 8P40G-XL module ships with an embedded 6800-DFC-XL. The modules are not field upgradable.

Feature	Description
Pluggable transceivers support	These Ethernet modules support 40G QSFP+ modules. For QSFP+ transceivers currently supported, refer to the Cisco Transceiver Modules compatibility matrices at: Compatibility Information.
Digital Optical Monitoring (DOM) support	The DOM-supported 40G Fiber QSFP+ transceivers are listed at Cisco Digital Optical Monitoring Compatibility Matrix.

Related Topics

Installing an Ethernet Switching Module

C6800-8P40G and C6800-8P40G-XL Module Specifications

Ethernet Module LEDs