Cisco High-Density Fiber Patch Panel, Simplex, MPO, and Breakout Cables Portfolio

© 2026 Cisco and/or its affiliates. All rights reserved.

Contents

Product overview 3

Features and benefits 7

Product specifications 8

Ordering guide 10

Prominent feature 14

Product sustainability 15

Cisco Capital 15

Document history 16

© 2026 Cisco and/or its affiliates. All rights reserved.

Cisco is introducing a family of fiber management solutions with a debut of SMF and MMF patch panels. The panels will enable Cisco's customers to facilitate breakout connectivity agnostic of the data rate.

The Cisco® solution of panel and cable assemblies offers versatile solution for any breakout from 4x10 Gbs to 400 Gbs native. The panels are compatible for Top of Rack (ToR), Middle of Rack (MoR), and End of Row (EoR) layouts.

Product overview



Patch Panel

Cisco simplifies optical connectivity management, overcoming limitations of high-density fiber connectivity. The Cisco patch panel enables tool-less access to:

- 72 LC duplex connectors in just 1RU of rack space, which can be bundled in 2RU and 4RU sizes for even higher fiber count applications.
- Tested by Telcordia for compliance with GR-449 Issue 3 and GR-63. This high-density solution improves access to small form factor connectors and creates unobstructed handling space, providing greater flexibility and efficient management of fiber connections.

© 2026 Cisco and/or its affiliates. All rights reserved.

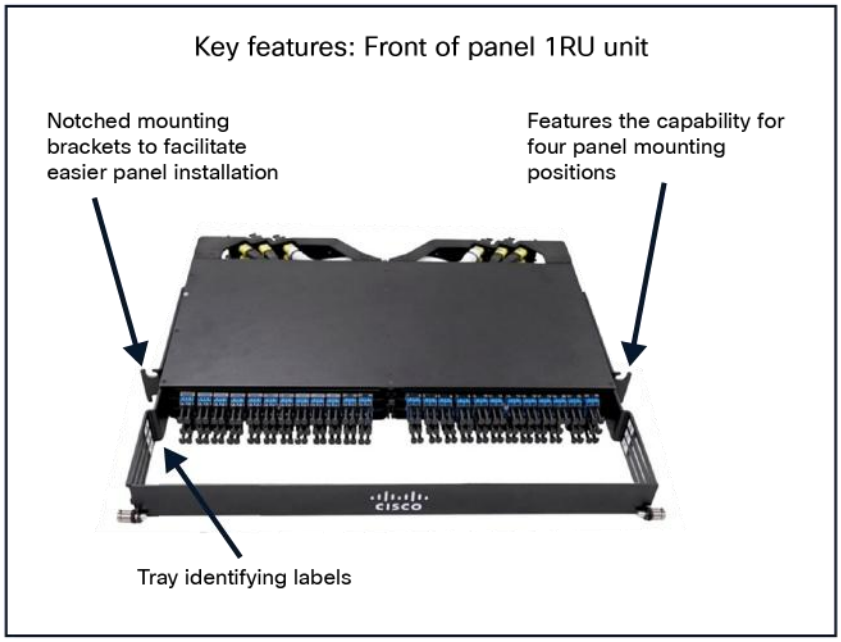


Figure 1.
Cisco MPO to LC Patch Panel Front View (Client Side)

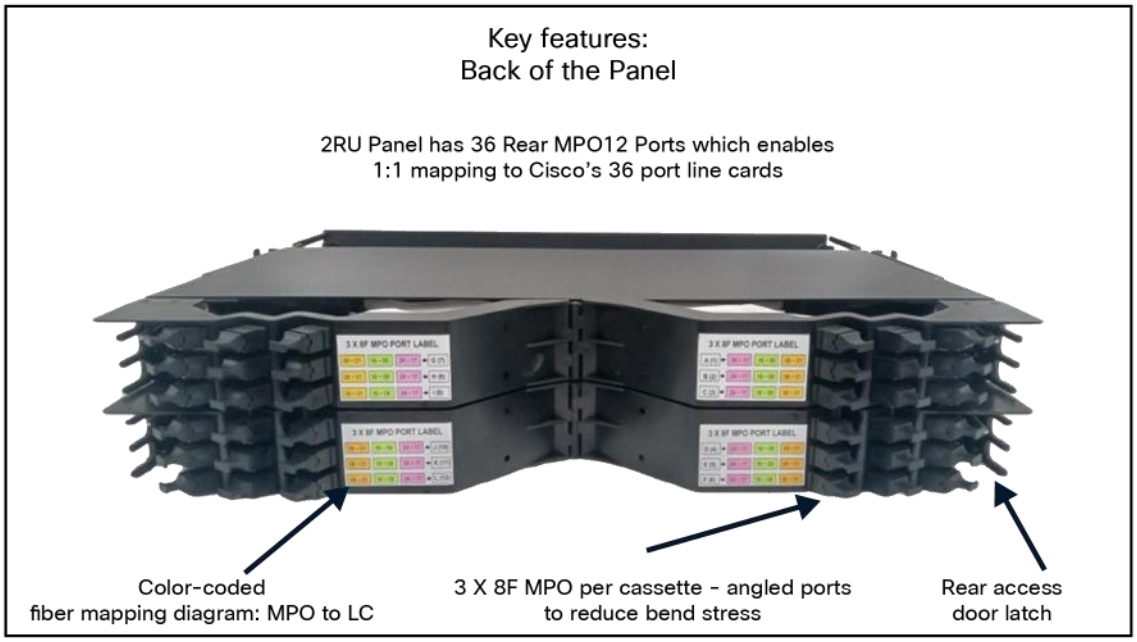


Figure 2.
Cisco 2 Rack Unit Patch Panel Rear View (Trunk Side)

© 2026 Cisco and/or its affiliates. All rights reserved.

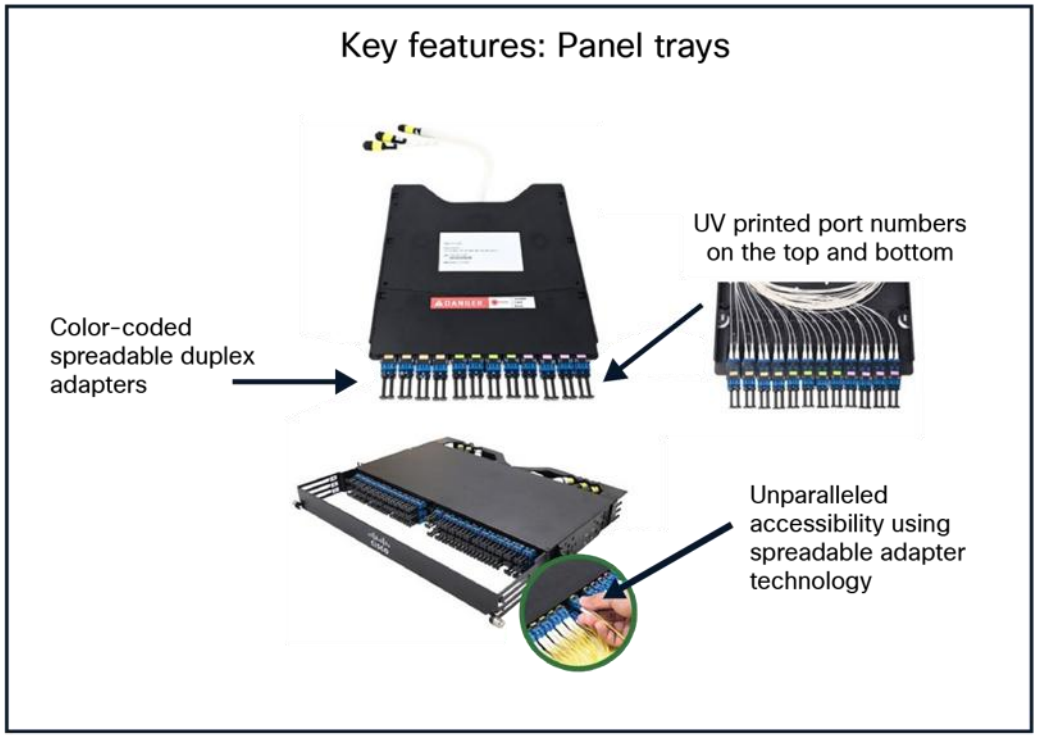


Figure 3.
Cisco Patch Panel Tray with Fiber Management Sleeves, labels, and Adapters

Cable Products

To support Patch Panel Connectivity, Cisco is introducing multiple cable configurations to enable customer transition to different data rates:

Cisco fiber optic cable assemblies are essential components of data center networks, facilitating high-speed data transmission, ensuring reliable connectivity, offering flexibility and scalability, maintaining signal integrity, and enabling rapid network deployment.

Single-Mode Connectivity Offering:

MPO12-MPO12

MPO12-4X Duplex LC

MPO12-1X Duplex LC

MPO12-4X Duplex CS

MPO12-2X Duplex CS

Duplex LC – LC

Multi-Mode Connectivity Offering:

MPO12-MPO12

MPO12-4X Duplex LC

Duplex LC – LC

© 2026 Cisco and/or its affiliates. All rights reserved.

All of Cisco's cable offerings are Telcordia GR-1435 and GR-326 qualified.

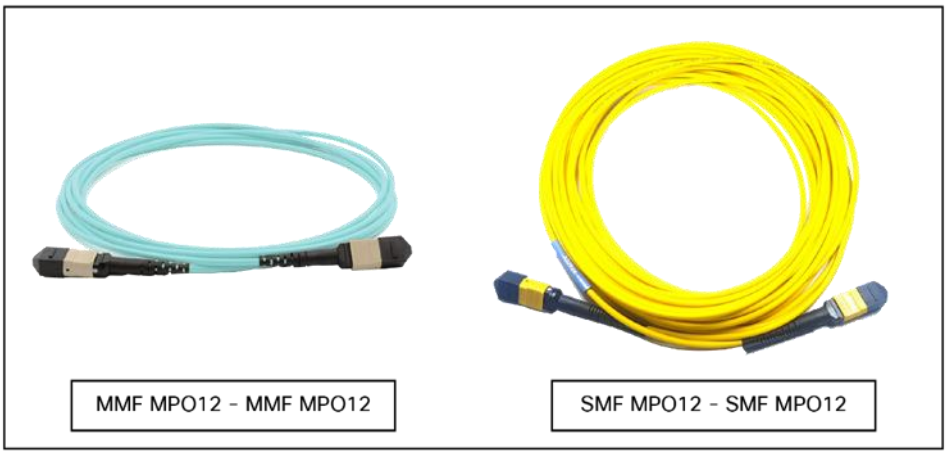


Figure 4.
MultiFiber Push-On (MPO) Cables Multi-Mode (MMF) and Single Mode (SMF)

MMF MPO12 - MMF MPO12 SMF MPO12 - MMF MPO12

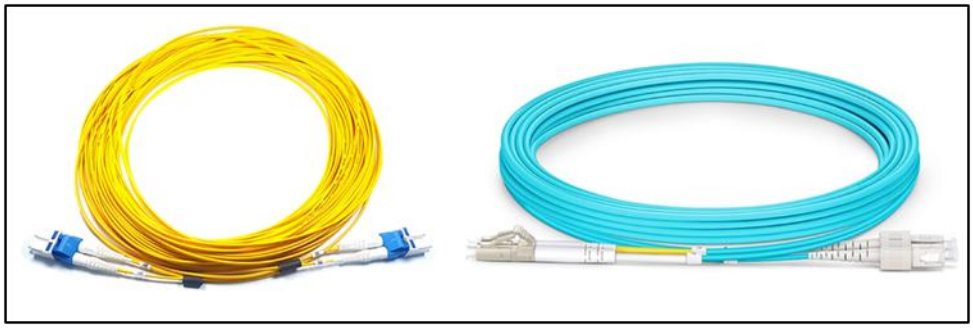


Figure 5.
Cisco SMF and MMF Duplex LC Cables.

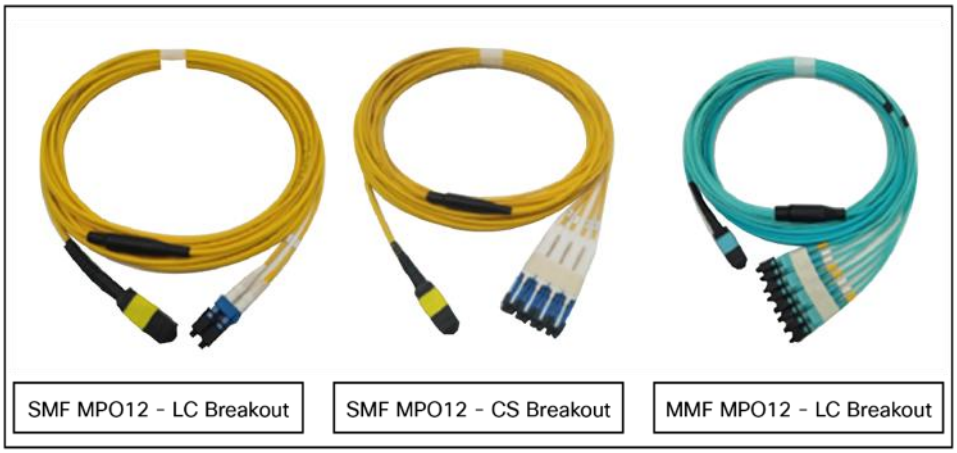


Figure 6.
Cisco Fan-out/BreakOut Fiber Cables.

© 2026 Cisco and/or its affiliates. All rights reserved.

Features and benefits

- Cisco's Patch Panel and Specialty Cables enable Day 1 connectivity and a fiber management solution.
- Patch Panel is a long-term solution that can provide high-density port connectivity solutions for 4x10 Gbps, 100 Gbps, 2x100 Gbps, 4x100 Gbps, 400 Gbps, 2x400 Gbps, and 4x400 Gbps breakout requirements.
- Enforces good cable management and labeling standards.
- High-density (MPO) fiber cables drastically reduce number of fibers going horizontal up the rack.
- Consistent LC/UPC and LC/APC client ports for demarcation.

Table 1. Cisco Patch Panel Features and specifications

Feature	Attribute	Benefit
Port Density	• Supports 72 LC Ports (Duplex) in 1RU. • Supports 144 LC Ports (Duplex) in 2RU. • Supports 288 LC Ports (Duplex) in 4RU.	• Increased port density saves space by reducing the need for additional racks. • Reduces rack count by up to 75% when compared LGX configurations. • Long-term connectivity solution for 4x10 Gbps,100 Gbps, 2x100 Gbps, 4x100 Gbps,400 Gbps,2x400 Gbps, 4x400 Gbps breakout requirements.
Spreadable Adapters	• Adapters slide left to right inside the cassette.	• Provides generous access to all connectors without affecting insertion loss. • Eliminates pressure on adjacent connections and fibers found on rigid bulkhead panels, thereby preventing adjacent circuit interruption. • Allows technician's finger access to firmly grip the connector base. • Reduces the chances of an accidental disconnect
Storage organizer for cables	• Integrated fiber management	• SOC sleeves organize and aid in grooming fiber cable for truly professional finish. • Improves cable and connector traceability.
Chassis	• Holds 6 cassettes per 1RU. • 1RU, 2RU and 4RU. • Multiple (Z-plane or depth rack positions). • 19"-23" Rack Mountable. • Front & rear cable managers.	• Front, flush, and reverse mounting positions create extra space in tight mounting positions. • Installs in any standard rack. • Improves cable and connector traceability for moves, adds, and changes.

© 2026 Cisco and/or its affiliates. All rights reserved.

Product specifications



Figure 7.
Cisco MPO to LC Fiber Patch Panel

Patch Panel:

Table 2. Cisco high-density fiber patch panel

Product	1RU	2RU	4RU
Number of LC ports	72 Duplex	144 Duplex	288 Duplex
Accessibility	Spreadable Adapters		
Access Direction	Front access to both front and rear side connectors		
Width	19” and 23” Rack Compatible		
Operating Temperature	-40° C to +65° C		
Connector Types	LC (Duplex) - Front, MPO - Rear		

Fiber Cable Assemblies:

Cisco MPO Cables SMF and MMF

- Telcordia GR-1435 compliant

© 2026 Cisco and/or its affiliates. All rights reserved.

MPO Specifications

Table 3. Cisco MPO Cable Specifications

Parameter	TYPE	Specification
Operating Wavelength	Single Mode	1310 nm & 1550 nm
	Multimode	850 nm & 1300 nm
Insertion Loss	Single Mode	IL 0.35dB (max)
	Multimode	IL 0.35dB (max)
Reflectance	Single Mode	RL 60dB (max)
	Multimode	RL 20dB (max)
Fiber Type	Single Mode	ITU G.657.A2
	Multimode	OM4 (50/125 µm)

Fiber Fan-Out/Breakout Cable Specifications

Table 4. Cisco Fiber Breakout Cable Specification

Type of Connector	Parameters		Low Loss	Unit
Multi fiber Connector	Insertion Loss	Single Mode	<0.35	dB
		Multimode	<0.45	dB
	Return Loss	Single Mode	>55	dB
		Multimode	>28	dB
Single fiber Connector	Insertion Loss	Single Mode UPC	≤0.25	dB
		Multimode	≤0.50	dB
	Return Loss	Single Mode UPC	≥55	dB
		Multimode	≥30	dB
	Operating Wavelength	Single Mode	1310/1550	nm
		Multimode	850/1300	
	Length Tolerance	+2% of the total cable length		
	Jacket Color	Yellow	SMF G652 and G657 Fiber	
		Orange	OM1 62.5/125 um, OM2 50/125 um	

© 2026 Cisco and/or its affiliates. All rights reserved.

Type of Connector	Parameters		Low Loss	Unit
		Aqua	OM3 50/125, OM4 50/125 um	

Duplex Cable Specifications

Table 5. Cisco Duplex Cable specification

Parameter	Type	Specification
Operating Wavelength	Single Mode	1310nm &1550nm
	Multi-Mode	850nm & 1300nm
Insertion Loss	Single Mode UPC	I.L. 0.25 dB(max)
	Multi Mode UPC	I.L. 0.35 dB(max)
Reflectance	Single Mode UPC	RL 50dB(max)
	Multi-Mode UPC	RL 20dB(max)
Fiber Type	Single Mode	ITU G.657.A2
	Multi-Mode	OM4(50/125mm

Ordering guide

Patch panel ordering guide:

Table 6. Single Mode Patch Panel Configurations

Product	Description
PP1-72X100G-SMF	Patch Panel, 1RU, 18 MPO12 - 72 Duplex LC, SMF
PP2-144X100G-SMF	Patch Panel, 2RU, 36 MPO12 - 144 Duplex LC, SMF
PP4-288X100G-SMF	Patch Panel, 4RU, 72 MPO12 - 288 Duplex LC, SMF

© 2026 Cisco and/or its affiliates. All rights reserved.

Table 7. Multi-Mode Patch Panel Configurations

Product	Description
PP1-72X100G-MMF	Patch Panel, 1RU, 18 MPO12 - 72 Duplex LC, MMF
PP2-144X100G-MMF	Patch Panel, 2RU, 36 MPO12 - 144 Duplex LC, MMF
PP4-288X100G-MMF	Patch Panel, 4RU, 72 MPO12 - 288 Duplex LC, MMF

Cable Ordering Guide:

Single Mode Cables

Table 8. MPO – MPO Single Mode

Product	Description
CB-M12-M12-SMF1M	Cable, MPO12-MPO12, Trunk Cable, TYPE B, SMF, 1M
CB-M12-M12-SMF5M	Cable, MPO12-MPO12, Trunk Cable, TYPE B, SMF, 5M
CB-M12-M12-SMF7M	Cable, MPO12-MPO12, Trunk Cable, TYPE B, SMF, 7M
CB-M12-M12-SMF10M	Cable, MPO12-MPO12, Trunk Cable, TYPE B, SMF, 10M
CB-M12-M12-SMF15M	Cable, MPO12-MPO12, Trunk Cable, TYPE B, SMF, 15M
CB-M12-M12-SMF20M	Cable, MPO12-MPO12, Trunk Cable, TYPE B, SMF, 20M
CB-M12-M12-SMF25M	Cable, MPO12-MPO12, Trunk Cable, TYPE B, SMF, 25M
CB-M12-M12-SMF30M	Cable, MPO12-MPO12, Trunk Cable, TYPE B, SMF, 30M

Table 9. MPO –LC Single Mode Breakout Cables

Product	Description
CB-M12-4LC-SMF5M	Cable, MPO12-4X Duplex LC, Breakout Cable, SMF, 5M

Table 10. MPO –CS Breakout Cables

Product	Description
CB-M12-4CS-SMF5M	Cable, MPO12-4X Duplex CS, Breakout Cable, SMF, 5M
CB-M12-4CS-SMF7M	Cable, MPO12-4X Duplex CS, Breakout Cable, SMF, 7M
CB-M12-2CS-SMF5M	Cable, MPO12-2X Duplex CS, Breakout Cable, SMF, 5M
CB-M12-2CS-SMF7M	Cable, MPO12-2X Duplex CS, Breakout Cable, SMF, 7M

© 2026 Cisco and/or its affiliates. All rights reserved.

Table 11. LC-LC Cables Single Mode

Product	Description
LC/UPC Configuration	
CB-LC-LC-SMF1M	Cable, Duplex LC-LC Patch Cord, SMF, 1M
CB-LC-LC-SMF3M	Cable, Duplex LC-LC Patch Cord, SMF, 3M
CB-LC-LC-SMF5M	Cable, Duplex LC-LC Patch Cord, SMF, 5M
CB-LC-LC-SMF7M	Cable, Duplex LC-LC Patch Cord, SMF, 7M
CB-LC-LC-SMF10M	Cable, Duplex LC-LC Patch Cord, SMF, 10M
CB-LC-LC-SMF15M	Cable, Duplex LC-LC Patch Cord, SMF, 15M
CB-LC-LC-SMF20M	Cable, Duplex LC-LC Patch Cord, SMF, 20M
CB-LC-LC-SMF25M	Cable, Duplex LC-LC Patch Cord, SMF, 25M
CB-LC-LC-SMF30M	Cable, Duplex LC-LC Patch Cord, SMF, 30M

Table 12. MPO – MPO Multi Mode

Product	Description
CB-M12-M12-MMF1M	Cable, MP012-MP012, Trunk Cable, TYPE B, MMF, 1M, OM4
CB-M12-M12-MMF1.5	Cable, MP012-MP012, Trunk Cable, TYPE B, MMF, 1.5M, OM4
CB-M12-M12-MMF2M	Cable, MP012-MP012, Trunk Cable, TYPE B, MMF, 2M, OM4
CB-M12-M12-MMF3M	Cable, MP012-MP012, Trunk Cable, TYPE B, MMF, 3M, OM4
CB-M12-M12-MMF4M	Cable, MP012-MP012, Trunk Cable, TYPE B, MMF, 4M, OM4
CB-M12-M12-MMF5M	Cable, MP012-MP012, Trunk Cable, TYPE B, MMF, 5M, OM4
CB-M12-M12-MMF7M	Cable, MP012-MP012, Trunk Cable, TYPE B, MMF, 7M, OM4
CB-M12-M12-MMF10	Cable, MP012-MP012, Trunk Cable, TYPE B, MMF, 10M, OM4
CB-M12-M12-MMF15M	Cable, MP012-MP012, Trunk Cable, TYPE B, MMF, 15M, OM4
CB-M12-M12-MMF20M	Cable, MP012-MP012, Trunk Cable, TYPE B, MMF, 20M, OM4
CB-M12-M12-MMF25M	Cable, MP012-MP012, Trunk Cable, TYPE B, MMF, 25M, OM4
CB-M12-M12-MMF30M	Cable, MP012-MP012, Trunk Cable, TYPE B, MMF, 30M, OM4

© 2026 Cisco and/or its affiliates. All rights reserved.

Table 13. MPO –LC Multi Mode Breakout Cables

Product	Description
CB-M12-4LC-MMF1.5	Cable, MPO12-4X Duplex LC, Breakout Cable, MMF, 1.5M, OM4
CB-M12-4LC-MMF2M	Cable, MPO12-4X Duplex LC, Breakout Cable, MMF, 2M, OM4
CB-M12-4LC-MMF3M	Cable, MPO12-4X Duplex LC, Breakout Cable, MMF, 3M, OM4
CB-M12-4LC-MMF4M	Cable, MPO12-4X Duplex LC, Breakout Cable, MMF, 4M, OM4
CB-M12-4LC-MMF5M	Cable, MPO12-4X Duplex LC, Breakout Cable, MMF, 5M, OM4
CB-M12-4LC-MMF7M	Cable, MPO12-4X Duplex LC, Breakout Cable, MMF, 7M, OM4
CB-M12-4LC-MMF10M	Cable, MPO12-4X Duplex LC, Breakout Cable, MMF, 10M, OM4
CB-M12-4LC-MMF15M	Cable, MPO12-4X Duplex LC, Breakout Cable, MMF, 15M, OM4
CB-M12-4LC-MMF20M	Cable, MPO12-4X Duplex LC, Breakout Cable, MMF, 20M, OM4
CB-M12-4LC-MMF25M	Cable, MPO12-4X Duplex LC, Breakout Cable, MMF, 25M, OM4
CB-M12-4LC-MMF30M	Cable, MPO12-4X Duplex LC, Breakout Cable, MMF, 30M, OM4

Table 14. Multi Mode LC Duplex Cables

Product	Description
CB-LC-LC-MMF1M	Cable, Duplex LC-LC Patch Cord, MMF, 1M
CB-LC-LC-MMF2M	Cable, Duplex LC-LC Patch Cord, MMF, 2M
CB-LC-LC-MMF3M	Cable, Duplex LC-LC Patch Cord, MMF, 3M
CB-LC-LC-MMF4M	Cable, Duplex LC-LC Patch Cord, MMF, 4M
CB-LC-LC-MMF5M	Cable, Duplex LC-LC Patch Cord, MMF, 5M
CB-LC-LC-MMF7M	Cable, Duplex LC-LC Patch Cord, MMF, 7M
CB-LC-LC-MMF10M	Cable, Duplex LC-LC Patch Cord, MMF, 10M
CB-LC-LC-MMF15M	Cable, Duplex LC-LC Patch Cord, MMF, 15M
CB-LC-LC-MMF20M	Cable, Duplex LC-LC Patch Cord, MMF, 20M
CB-LC-LC-MMF25M	Cable, Duplex LC-LC Patch Cord, MMF, 25M
CB-LC-LC-MMF30M	Cable, Duplex LC-LC Patch Cord,, MMF, 30M

© 2026 Cisco and/or its affiliates. All rights reserved.

Table 15. Breakout location: MPO-to-LC (Multi-Mode)

Product ID	Breakout Location (from MPO End)
CB-M12-4LC-MMF1.5	0.5M
CB-M12-4LC-MMF2M	1.0M
CB-M12-4LC-MMF3M	2.0M
CB-M12-4LC-MMF4M	3.0M
CB-M12-4LC-MMF5M	4.0M
CB-M12-4LC-MMF7M	6.0m
CB-M12-4LC-MMF10M	9.0M
CB-M12-4LC-MMF15M	14.0M
CB-M12-4LC-MMF20M	19.0M
CB-M12-4LC-MMF25M	24.0M
CB-M12-4LC-MMF30M	29.0M

Prominent feature

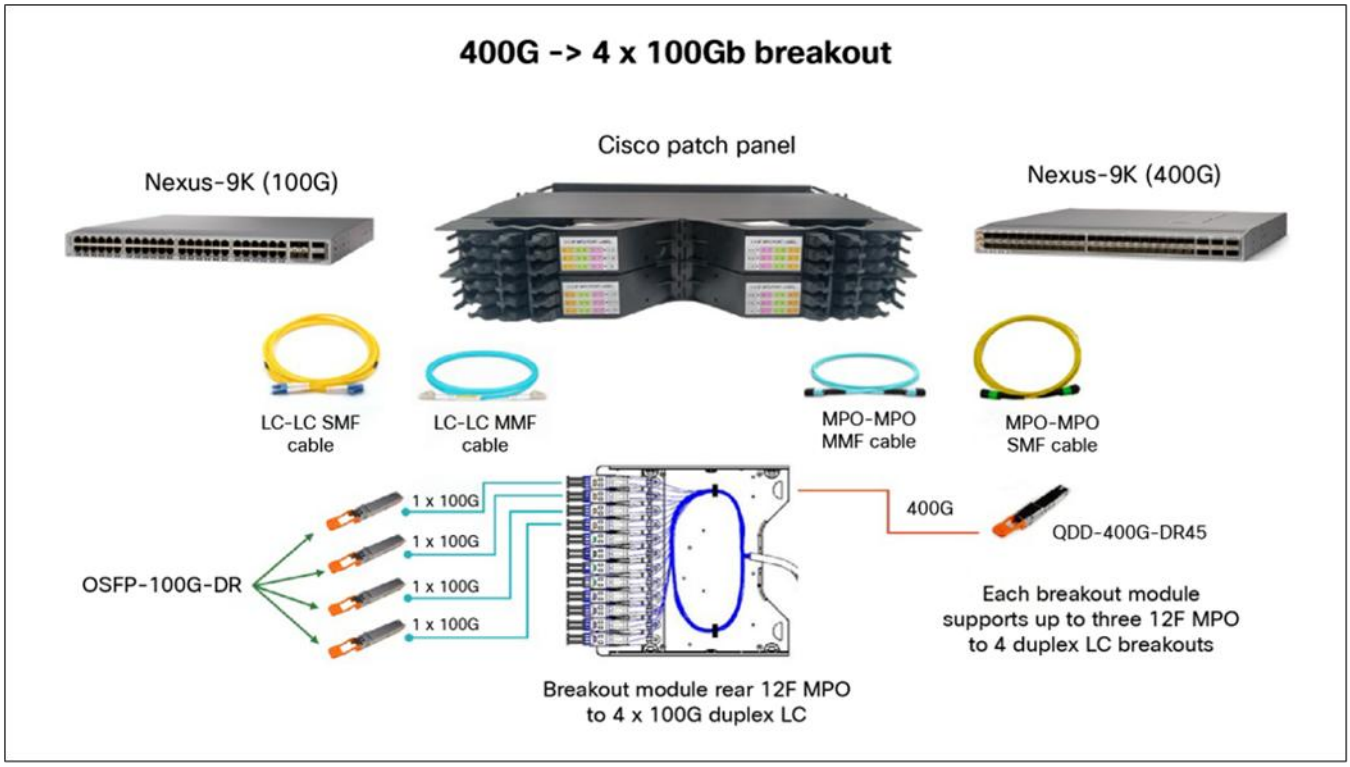


Figure 8.
Cisco Patch Panel and Specialty Cables for high density port connectivity solutions

© 2026 Cisco and/or its affiliates. All rights reserved.

Product sustainability

Information about Cisco's Environmental, Social and Governance (ESG) initiatives and performance is provided in Cisco's CSR and sustainability reporting.

Table 16. Cisco Environmental Sustainability Information

Sustainability Topic		Reference
General	Information on product-material-content laws and regulations	Materials
	Information on electronic waste laws and regulations, including our products, batteries, and packaging	WEEE Compliance
	Information on product takeback and reuse program	Cisco Takeback and Reuse Program
	Sustainability inquiries	Contact: csr_inquiries@cisco.com
Material	Product packaging weight and materials	Contact: environment@cisco.com

Cisco Capital

Flexible payment solutions to help you achieve your objectives

Cisco Capital® makes it easier to get the right technology to achieve your objectives, enable business transformation, and help you stay competitive. We can help you reduce the total cost of ownership, conserve capital, and accelerate growth. In more than 100 countries, our flexible payment solutions can help you acquire hardware, software, services, and complementary third-party equipment in easy, predictable payments. Learn more.

© 2026 Cisco and/or its affiliates. All rights reserved.

Document history

New or revised topic	Described in	Date
Initial Release		
Removed non-orderable product IDs and fixed product format		
Added Breakout location: MPO-to-LC (Multi-Mode)		

Americas Headquarters
Cisco Systems, Inc.
San Jose, CA

Asia Pacific Headquarters
Cisco Systems (USA) Pte. Ltd.
Singapore

Europe Headquarters
Cisco Systems International BV Amsterdam,
The Netherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at **https://www.cisco.com/go/offices**.

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: https://www.cisco.com/go/trademarks. Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)

Printed in USA C78-3663721-02 07/26

© 2026 Cisco and/or its affiliates. All rights reserved.