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# Cisco Catalyst PON Series Switches

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## Catalyst grade performance now in PON technology

Cisco Catalyst PON Series switches extend the power of Catalyst switches to passive optical network infrastructure. With its family pedigree, **Catalyst PON Series switches offer Competitive fiber based network solution - it is high performance, structurally simple, and easy to maintain.** 

As foundational building blocks for the Cisco Digital Network Architecture, Catalyst PON Series switches help customers simplify complexity, optimize IT, and reduce operational costs by leveraging intelligence, automation and human expertise. It provides security features that protect the integrity of the hardware as well as the software and all data that flows through the device, giving you what you need now with investment protection on future innovations.

With GPON feature support, bandwidth up to 108 Gbps, double uplink module, power redundancy, ONT PoE+ capability and high aggregation capacity, Catalyst PON Series switches are the industry's All-Optical solution with differentiated resiliency and progressive architecture for cost-effective optical network access.

CGP-OLT products are compact and high-density network aggregation devices, meeting the requirements of ITU-T G.984 and relative GPON standards, with high access capacity, reliability and powerful security function.

CGP-ONT products provide access for comprehensive services, including High-Speed Internet, Video, VoIP, CCTV and CATV to the subscribers in FTTx application with powerful interoperability and stability.

## Product overview

#### **Product highlights**

- All services over one optical network
- · Compact and high-density for various scenarios
- 1RU for easy and quick installation
- Easy management and maintenance
- Up to 16 ports of 2.5G GPON access capability
- Redundant power supply and uplinks
- Flexible downlink options with data, video, voice (POTS only supports voice service), CATV, PoE+, Wi-Fi
- Integrated CPU offers customers optimized scale with better cost structure
- Template-based configurable allocation of Layer 2 forwarding, Access Control Lists (ACLs), and Quality of Service (QoS) entries

# Features and benefits

## **Platform details**

#### Switch models and configurations

Models	Power Supply	Fans	Uplinks
CGP-OLT	✓	✓	✓
CGP-ONT	✓	×	✓

The Cisco Catalyst PON Series switches are made up of Optical Line Terminal (OLT) and Optical Network Terminal (ONT).



Figure 1. Cisco Catalyst PON OLT



Figure 2. Cisco Catalyst PON ONT

Table 1.	Cisco Catalyst F	PON Series C	OLT configurations
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Switch model	Downlinks total PON ports	Uplinks Configuration GE Ethernet	Uplink configuration 10G Ethernet	Management Console	Default primary AC power supply	Optional secondary power supply*	Fans
CGP-OLT-8T	8 GPON ports	4 Gigabit Combo ports (Copper RJ45 + SFP optical)	2 SFP+	RJ45 Console, OOB GE, RJ45 Alarm	PWR-OLT8- 80WAC	PWR-OLT8- 80WAC or PWR-OLT8- 72WDC	modular
CGP-OLT-16T	16 GPON ports	4 Gigabit Combo ports (Copper RJ45 + SFP optical)	2 SFP+	RJ45 Console, OOB GE	PWR-OLT16- 100WAC	PWR-OLT16- 100WAC or PWR-OLT16- 100WDC	fixed

\*Power supplies available Q3 FY22

#### Table 2. Cisco Catalyst PON Series ONT configurations

Switch model	Downlinks total 10/100/1000 PoE+ copper ports	Uplink configuration PON port	Voice POTS	CATV Coaxial	Wi-Fi	USB Type A File mgt	Fans
CGP-ONT-1P	1 PoE+	1 GPON (SC/APC receptacle)	n/a	n/a	n/a	n/a	fanless
CGP-ONT-4P	4 PoE+	1 GPON (SC/APC receptacle)	n/a	n/a	n/a	1 USB Type A	fanless
CGP-ONT- 4PV	4 PoE+	1 GPON (SC/APC receptacle)	2 POTS RJ11	n/a	n/a	1 USB Type A	fanless
CGP-ONT- 4PVC	4 PoE+	1 GPON (SC/APC receptacle)	2 POTS RJ11	1 CATV Coax	n/a	1 USB Type A	fanless
CGP-ONT- 4TVCW-x <sup>*</sup>	4 Data	1 GPON (SC/APC receptacle)	2 POTS RJ11	1 CATV Coax	1 Wi-Fi 2.4G/5GHz	1 USB Type A	fanless

\*x=Region Prefix. Currently -EU, -NA and -IN available, refer to ordering information section for regulatory domains. Please reach out for other regions.

## Platform resiliency

#### **Power supplies**

Cisco Catalyst PON Series OLT supports dual field-replaceable power supplies (Figure 3). Each switch ships with one default power supply, and a second identical power supply can be purchased with the initial order or can be added at a later time. The second power supply can provide redundancy as needed.



Figure 3. Cisco Catalyst PON Series OLT dual redundant power supplies

\*Power supplies available Q3 FY22

#### Fan

Cisco Catalyst PON Series 16 port OLT (CGP-OLT-16T) fans are fixed.

#### Intelligent PoE+

IEEE 802.3at PoE+ (up to 30W per port) is supported on Cisco Catalyst PON Series ONT (except CGP-ONT-4TVCW-x) to lower the total cost of ownership for deployments that incorporate Cisco IP phones, Cisco Aironet<sup>®</sup> wireless access points, or other standards-compliant PoE+ end devices. PoE+ removes the need to supply wall power to PoE-enabled devices and eliminates the cost of adding electrical cabling and circuits that would otherwise be necessary in IP phone and WLAN deployments. With Cisco Catalyst PON Series ONT, PoE+ power allocation is dynamic, and power mapping scales up to a maximum of 60W of PoE+ power.

## Performance and scalability

Table3 lists performance and scalability metrics for Cisco Catalyst PON Series OLT, table 4 lists the ones of ONT.

Description	CGP-OLT-8T	CGP-OLT-16T
Switching Capacity	78Gbps	108Gbps
Forwarding Rate	65Mpps	95Mpps
Total number of MAC addresses	32k	64k
Total number of IPv4 routing table	2k	2k
Total number of ARP table	8k	8k
VLAN IDs	4k	4k

#### Table 3. Performance specifications of OLT

Description	CGP-OLT-8T	CGP-OLT-16T
T-CONT of each PON port	768	768
Gemport of each PON port	3,072	3,072
ONT Ranging Logical Distance	60km	60km
ONT Ranging Physical Distance	20km	20km
Splitter Ratio	1:64 recommended Up to 1:128	1:64 recommended Up to 1:128
Network Protection Mode	Туре В	Туре В
ONT Authentication	SN mode Password mode SN+Password mode LOID mode LOID+LOID Password mode	SN mode Password mode SN+Password mode LOID mode LOID+LOID Password mode
QoS scale entries	SP, WRR, SP+WRR, cos-map, dscp-map Queue: 8	SP, WRR, SP+WRR, cos-map, dscp-map Queue: 8
ACL scale entries	2К	2K
Jumbo frames	9,220 bytes	9,220 bytes
DRAM	Switch-1GB DDR3 PON CPU-256MB DDR3 PON ICF0- 512MB DDR3	Switch-1GB DDR3 PON CPU-256MB DDR3 PON ICF0- 512MB DDR3 PON ICF1- 512MB DDR3
Flash	32MB	32MB

Description	CGP-ONT-1P	CGP-ONT-4P	CGP-ONT-4PV	CGP-ONT-4PVC	CGP-ONT- 4TVCW-x
Switching Capacity	5.75Gbps	11.75Gbps	11.75Gbps	11.75Gbps	11.75Gbps
Forwarding Rate	5.2Mpps	9.6Mpps	9.6Mpps	9.6Mpps	9.6Mpps
Total number of MAC addresses	2k	2k	2k	2k	2k
Total number of IPv4 routing table	n/a	8 static routes	8 static routes	8 static routes	8 static routes
Total number of ARP table	n/a	1K	1K	1K	1K
T-CONT/Gemport	8/32	8/32	8/32	8/32	8/32
Transmission Rate	DS:2.488 Gbps US:1.244 Gbps				
QoS scale entries	8 priority queues				
IP/Port filter entries	20	20	20	20	20
Mac Filter entries	20	20	20	20	20
URL Blocking entries	8	8	8	8	8
Jumbo frames	1,500 bytes				
DRAM	32MB DDR3	256MB DDR3	256MB DDR3	256MB DDR3	256MB DDR3
Flash	16MB	128MB	128MB	128MB	128MB

#### Table 4. Performance specifications of ONT

## Platform benefits

#### **Passive Optical Network**

- Passive element is stable, easy to maintain without failure.
- All-Optical has high bandwidth and great potential for bandwidth upgrade in the future, which is the development trend of bearer network.
- Simple Network, load balancing and end-to-end network management for easy maintenance.

#### **High Performance**

- The platform adopts all-optical network, which has large bandwidth capacity for carrying multiple services. It has good expansibility and network upgrade space, which is in line with the network development trend.
- Large bandwidth, the maximum bandwidth of a single user can reach 2500Mbps.
- One fiber carrying multiple services, supporting voice, video, security, Internet and other services.

#### **High Reliability**

- Support type B protection, backup and disaster recovery protection for PON port.
- Power redundancy and dual uplink routing to avoid single point of network failure.
- IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) provides rapid spanning tree convergence independent of spanning tree timers and also offers the benefit of Layer 2 load balancing and distributed processing.
- IEEE802.3AD Link Aggregation Control Protocol (LACP) provides multiple links binding to achieve uplink backup.

#### QoS

- The platform provides end-to-end QoS guarantees. Through the comprehensive application of congestion management, priority marking, queue scheduling and traffic rate limiting/shaping, it can meet the user's service quality requirements and create a high-quality network for customers.
- Service quality guarantee: Based on the IEEE 802.1p protocol, different service class CoS (Class of Service) values are set according to different service types, and differentiated priority processing methods are provided to improve the network quality index such as delay time, jitter, and packet loss rate. Different traffic classifications have different priorities, and different queues such as SP (Strict Priority) and WRR (Weighted Round Robin) are used to perform queue scheduling of data flows for improving the services quality.
- Bandwidth guarantee: User bandwidth is guaranteed by the application of DBA (Dynamic Bandwidth Assignment) mechanism and the traffic rate limiting/shaping function. Generally, the VoIP service is set to a fixed bandwidth, the IPTV and video services are set to ensure bandwidth, and the high-speed Internet service is set to the maximum bandwidth. The data stream is limited and shaped by a plurality of line templates to ensure bandwidth guarantee.

#### **Quick Installation and Deployment**

- Automatic data configuration and delivery, fast service opening.
- Low-energy equipment to save energy, reduce emissions and protect the environment.

#### **Easy Maintenance**

- The whole process of passive optical connection makes the network topology stable and reliable, and the fault point is greatly reduced. The network management system can directly manage the user ports of the ONT, provide end-to-end QoS service guarantees for the entire network, and implement end-to-end network management, which reduces the pressure and intensity of operation and maintenance, while improves operation and maintenance efficiency.
- Cisco PON Manager is an embedded GUI-based device-management tool that provides the ability to provision the device, to simplify device deployment and manageability, and to enhance the user experience. It supports Alarm, Performance, Data Configuration and Delivery, Security, Log, Terminal Management and software batch upgrade functions.

## Specifications

## Dimensions, Weight, Acoustic, Mean time between failures

Table 5 shows the dimensions, weight, acoustic, and mean time between failures of all models of Cisco Catalyst PON Series switches.

	Chassis Dimensions	
Model	Inches	Centimeters
CGP-OLT-8T	1.7 x 17.3 x 10.8	4.4 x 44.0 x 27.5
CGP-OLT-16T	1.7 x 17.3 x 15.0	4.4 x 44.0 x 38.0
CGP-ONT-1P	1.5 x 4.1 x 7.5	3.8 x 10.5 x 19.0
CGP-ONT-4P	1.7 x 9.4 x 5.7	4.4 x 24.0 x 14.5
CGP-ONT-4PV	1.7 x 9.4 x 5.7	4.4 x 24.0 x 14.5
CGP-ONT-4PVC	1.7 x 9.4 x 5.7	4.4 x 24.0 x 14.5
CGP-ONT-4TVCW-x	1.6 x 6.6 x 6.9	4.0 x 16.8 x 17.5

Model	Pounds	Kilograms
CGP-OLT-8T	9.9	4.5
CGP-OLT-16T	16.8	7.6
CGP-ONT-1P	1.9	0.84
CGP-ONT-4P	2.8	1.25
CGP-ONT-4PV	2.8	1.25
CGP-ONT-4PVC	2.8	1.25
CGP-ONT-4TVCW-x	0.8	0.36

Mean time between failures (hours)		
CGP-OLT-8T	340,000	
CGP-OLT-16T	330,000	
CGP-ONT-1P	830,000	
CGP-ONT-4P	450,000	
CGP-ONT-4PV	410,000	
CGP-ONT-4PVC	360,000	
CGP-ONT-4TVCW-x	830,000	

Environmental ranges							
Acoustic noise	With AC power supply:						
Measured per ISO 7779 and declared per ISO 9296	<ul> <li>LpA: 45.6 dB max (CGP-OLT-8T)</li> <li>LpA: 44.4 dB max (CGP-OLT-16T)</li> </ul>						
Bystander positions operating to an ambient temperature of 25°C	Maximum: Statistical maximum to account for variation in production						

## Connectors

Table 6 shows the supported connectors for Cisco Catalyst PON Series switches, Table 7 shows the GPON SFP.

#### Table 6. Connectors

Connectors and cabling	<ul> <li>1000BASE-T ports: RJ-45 connectors, 4-pair Cat 5E UTP cabling</li> <li>1000BASE-T SFP-based ports</li> <li>100BASE-FX, 1000BASE-SX, -LX/LH, SFP transceivers: LC fiber connectors (single-mode or multimode fiber)</li> <li>10GBASE-SR, LR, LRM, SFP+ transceivers: LC fiber connectors (single-mode or multimode fiber)</li> <li>GPON SFP connector</li> </ul>
	<ul> <li>Ethernet management port: RJ-45 connectors, 4-pair Cat 5 UTP cabling</li> <li>Management console port: RJ-45-to-DB9 cable for PC connections</li> </ul>
Power connectors	• Internal power supply connector: The internal power supply is an auto-ranging unit. It supports input voltages between 100 and 240 VAC. Use the supplied AC power cord to connect the AC power connector to an AC power outlet.

#### Table 7.GPON SFP

Description	CGP-SFP-OC=
Average output power	3~7dBm
Center wavelength	1480~1500nm
Extinction ratio	8.2~12.2dB
Crossing	44~46%
Jitter RMS	8~16ps
Optical eye mask, Margin	30%
Sensitivity	-30dBm
Overload	-12dBm
LOS Desertion	-33dBm
Power Supply Current for 3.3V	270~500mA

# Management and standards support

Table 8 shows management and standards support for Cisco Catalyst PON Series switches.

 Table 8.
 Management and standards support\*

Description	Specification
Management	8021xMIB
	ciscoMasterMib
	dot3OAM-MIB
	ENTITY-MIB
	garpMib
	gbnDeviceOEM-MIB
	gbnDevicePoe-MIB
	gbnDeviceStack-MIB
	gbnDeviceSWAPI-MIB
	gbnDeviceSwitch-MIB
	gbnL2Dhcp6Snooping-MIB
	gbnL2DhcpSnooping-MIB
	gbnL2PortSecurity-MIB
	gbnL2PppoePlus-MIB
	gbnL2QACL-MIB
	gbnL2Switch-MIB
	gbnL3-MIB-vr
	gbnL3-MIB
	gbnL3DhcpRelay-MIB
	gbnL3If-MIB
	gbnL3Igmp-MIB
	gbnL3IPPool-MIB
	gbnL3Ospf-MIB
	gbnL3Pim-MIB
	gbnL3PimBsr-MIB
	gbnL3Rip-MIB-vr
	gbnL3Rip-MIB
	gbnL3RouteCommon-MIB
	gbnPlatformChassis-MIB
	gbnPlatformGNLink-MIB
	gbnPlatformOAM-MIB
	gbnPlatformOAMMailalarm-MIB
	gbnPlatformOAMSsh-MIB

Description	Specification
	gbnPlatformOAMSyslog-MIB
	gbnPlatformOAMTelnet-MIB
	gbnPlatformSntpClient-MIB
	gbnServiceCM-MIB
	gbnServiceMAC-NOTIFICATION-MIB
	gbnServiceMACAUTHEN-MIB
	gbnServiceRADIUS-MIB
	gbnServiceRMON-MIB
	gbnServiceTACACSPLUS-MIB
	gerpMib
	GPON-MIB
	IANA-ADDRESS-FAMILY-NUMBERS-MIB
	IANA-ENTITY-MIB
	IANAifType-MIB
	INET-ADDRESS-MIB
	IP-MIB
	lldpMib
	IIdpPrivate-MIB
	MGMD-STD-MIB
	mstpMib
	ngponMib
	stpMib
	TCP-MIB
	UDP-MIB
	UUID-TC-MIB
Standards	ITUT G.984.1
	ITUT G.984.2
	ITUT G.984.3
	ITUT G.984.4
	ITUT G.988
	IEEE 802.1w
	IEEE 802.1x Authentication
	IEEE 802.3af
	IEEE 802.3at
	IEEE 802.3ad
	IEEE 802.1D Spanning Tree Protocol
	IEEE 802.1p CoS prioritization

Description	Specification
	IEEE 802.1Q VLAN
	IEEE 802.3ab 1000BASE-T specification
	IEEE 802.3z 1000BASE-X specification
	IEEE 802.3ae
	IEEE 802.11b/g/n/ac
	RMON I and II standards
	SNMPv1, v2c, and v3

# Power supply specifications

Table 9 lists the power specifications for Cisco Catalyst PON Series switches based on the kind of power supply used.

Table 9.	Power	supply	specifications
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Description	Specification								
	PWR-OLT8-80WAC	PWR-OLT8-72WDC	PWR-OLT16-100WAC	PWR-OLT16-100WDC					
Power supply rated maximum	80W	72W	100W	100W					
Total output BTU (note: 1000 BTU/hr = 293W)	273BTU/hr, 80W	246BTU/hr, 72W	341BTU/hr, 100W	341BTU/hr, 100W					
Input-voltage range and frequency	90 to 264 VAC, 47 to 63 Hz	-36VDC~-75VDC	90 to 264 VAC, 47 to 63 Hz	-36VDC~-75VDC					
Input current	1.2A	2.4A	1.5A	4A					
Output ratings	12V/6.6A, 80W	11.7V/6A, 72W	12V/8.3A, 100W	12V/8.3A, 100W					
Power cord rating	10A	10A	10A	10A					
Physical specifications	215mmx57mmx40mm	215mmx57mmx40mm	192mmx85mmx40mm	192mmx85mmx40mm					
Supported Product Family	CGP-OLT-8T	CGP-OLT-8T	CGP-OLT-16T	CGP-OLT-16T					
Operating temperature	23° to 104°F (-5° C to * Minimum ambient temp	+40°) @ sea level perature for cold start is 3	32°F (0°C)						
Storage temperature	13° to 158°F (-25° to 70°C)								
Relative humidity operating and non- operating non- condensing	5% to 90%, non-condensing								
Altitude	10,000 ft. (3000 meters	)							

Description	Specification									
	PWR-OLT8-80WAC	PWR-OLT8-72WDC	PWR-OLT16-100WAC	PWR-OLT16-100WDC						
EMI/EMC and safety compliance	tologommunications aquinment									
			nd Radio spectrum Matters ( nd services; Part 1: Commor							
	• ETSI EN 301 489-8 Electromagnetic Compatibility and Radio spectrum Matters(ERM); Electromagnetic Compatibility (EMC) Standard for Radio Equipment and services; Part 8: Specific conditions for GSM Base stations									
	• BS EN 55022									
	• CEI IEC 60950-1999 Sa	fety of information technolog	gy equipment							
	UL 60950 Safety of Infor	rmation Technology Equipme	ent							
	• IEC61000-4 Electromagnetic compatibility (EMC); part 4: testing and measurement techniques									
	• IEC 60529 AMD 1-1999 Degrees of protection provided by enclosures (IP code); Amendment 1									
LED indicators	Power image: Working is OK when it lights up.									
	Alarm image: Fault happ	ened when it lights up.								

# Power consumption of Standalone PON Series switches

Table 10 shows the power consumption of standalone Cisco Catalyst PON Series switches based on Alliance for Telecommunications Industry Solutions (ATIS) testing using Internet Mix (IMIX) distribution stream traffic, with input voltage of 115VAC at 60 Hz and no PoE loading. The values given are the maximum possible power consumption numbers under the respective test scenarios.

			Measured P(W)								
			Half port t	raffic		Full port traffic			No link		
SKU	SKU FEP Input		100M	500M	1G	100M	500M	1G			
<b>CGP-OLT-8T</b> 80W	80W	220VAC	43.9	43.9	44.1	51	51.3	51.8	37.0		
		110VAC	44.6	44.7	44.9	51.4	51.9	52.2	36.5		
CGP-OLT-16T	100W	220VAC	52.7	53.2	54.1	64.9	65.6	66.6	40.3		
		110VAC	53.2	53.6	54.3	66.0	66.7	67.8	40.5		

 Table 10.
 Power consumption of Standalone Catalyst PON Series switches

ONT		Measured P(W)										
		Half port traffic			Full port traffic			No link	PoE test (no traffic)			
SKU	PSU	Input	0.01% EEE	10%	50%	100%	0.01% EEE	10%	50%	100%		
CGP-ONT-1P	36W	220VAC	n/a	n/a	n/a	n/a	3.01	3.12	3.15	3.21	2.61	33.8
		110VAC	n/a	n/a	n/a	n/a	2.82	2.91	2.95	2.98	2.23	33.6
CGP-ONT-4P	72W	220VAC	5.78	6.73	6.82	6.86	6.43	7.55	7.68	7.72	5.21	70.2
		110VAC	5.73	6.76	6.81	6.92	6.57	7.53	7.58	7.63	5.42	69.8
CGP-ONT-4PV	72W	220VAC	5.81	7.73	7.88	7.92	6.53	8.62	8.72	8.76	5.23	70.4
		110VAC	5.83	7.72	7.83	7.91	6.48	8.58	8.67	8.71	5.44	70.0
CGP-ONT-4PVC	72W	220VAC	5.88	7.82	7.95	7.97	6.54	8.65	8.73	8.81	5.25	70.5
	110VAC	5.89	7.75	7.88	7.92	6.49	8.62	8.70	8.71	5.46	70.4	
CGP-ONT- 4TVCW-x	18W	220VAC	5.40	7.51	7.57	7.63	5.99	8.22	8.32	8.36	4.68	n/a
71 0 0 0 - 7		110VAC	5.18	7.11	7.39	7.41	5.92	8.11	8.25	8.28	4.54	n/a

# Safety and compliance

Table 11 lists the safety and compliance information for Cisco Catalyst PON Series switches.

Table 11.	Safety and	compliance	information
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Description	Specification	
Safety certifications	<ul> <li>IEC 60950-1:2005</li> <li>IEC 62368-1:2014</li> </ul>	
Electromagnetic emissions certifications	<ul> <li>EN55032:2015</li> <li>EN55035-2017</li> <li>EN61000-3-2:2014</li> <li>N61000-3-3:2013</li> <li>AS/NZS CISPR 32:2015</li> <li>EN 300386 V2.11</li> <li>PART 15B, ICES-003: ISSUE 6</li> <li>VCCI-CISPR 32:2016</li> </ul>	
Environmental	Reduction of Hazardous Substances (ROHS) 5	

## Warranty

Cisco Catalyst PON Series switches are covered by a Cisco standard 3-year replacement warranty that includes 10-day advance hardware replacement. For more details, visit <u>https://www.cisco.com/go/warranty</u>.

## Cisco services for Cisco Catalyst PON switches

Achieve infrastructure excellence faster and with less risk. Cisco Catalyst PON switch services provide expert guidance to help you successfully deploy, manage and support the Cisco Catalyst PON switches. With unmatched networking expertise, best practices and innovative tools, we can help you reduce overall upgrade, refresh, and migration costs as you introduce new hardware, software and protocols into the network. Offering a comprehensive lifecycle of services – from implementation, optimization, technical and managed services – Cisco experts help you minimize disruption and achieve operational excellence to extract maximum value from your network infrastructure.

Catalyst PON switch models offer an optional trial of 90 days of Cisco Smart Net Total Care to provide customers assistance with configuration, diagnosis, and troubleshooting of device-level problems. Cisco TAC experts are accessible 24 hours a day, 365 days per year. Online self-help tools include our extensive knowledge library, software downloads, and support tools designed to help you resolve network issues quickly, often without opening a case.

Learn more about Cisco Services for Enterprise Networks

## Software Policy for Cisco Catalyst PON Series switches

## Software Policy for Cisco software feature sets

Customers with the Cisco software feature sets are provided with maintenance updates and bug fixes designed to maintain compliance of the software. This includes compliance with published specifications, release notes, and industry standards as long as the original end user continues to own or use the product or up to one year from the end-of-sale date for the product, whichever occurs earlier.

## Ordering

## Ordering information

Table 12 lists ordering information for Cisco Catalyst PON Series switches. To place an order, visit the Cisco Ordering home page at

https://www.cisco.com/en/US/ordering/or13/or8/order customer help how to order listing.html.

#### **Table 12.**Ordering information

Switches		
Product number	Product description	
CGP-OLT-8T	Catalyst PON 8-port GPON OLT,4 GE Combo ports (Copper RJ45 + SFP optical), 2 10GE SFP+	
CGP-OLT-16T	Catalyst PON 16-port GPON OLT, 4 GE Combo ports (Copper RJ45 + SFP optical), 2 10GE SFP+	
CGP-ONT-1P	Catalyst PON 1-port GPON ONT, PoE+	
CGP-ONT-4P	Catalyst PON 4-port GPON ONT, PoE+	

Switches		
Product number	Product description	
CGP-ONT-4PV	Catalyst PON 4-port GPON ONT, PoE+, 2 POTS RJ11	
CGP-ONT-4PVC	Catalyst PON 4-port GPON ONT, PoE+, 2 POTS RJ11, 1 CATV Coax	
CGP-ONT-4TVCW-x	Catalyst PON 4-port GPON ONT, 2 POTS RJ11, 1 CATV Coax, 1 Wi-Fi 2.4G/5GHz. x=Region Prefix. Currently -EU, -NA and -IN available. Please reach out for other regions.	
	EU - EU power adapter, -E Wireless LNA regulatory domain	
	NA - NA power adapter, -A Wireless LNA regulatory domain	
	IN - IN power adapter, -H Wireless LNA regulatory domain	
GPON SFP		
Product Number	Product Description	
CGP-SFP-OC=	GPON SFP type C, Sensitivity -30dBm, average output power 3~7dBm	

# Optics online reference

Cisco Catalyst PON Series switches support a wide range of optics. Because the list of supported optics is updated on a regular basis, consult the tables available here for the latest SFP+ and SFP compatibility information:

https://www.cisco.com/en/US/products/hw/modules/ps5455/products\_device\_support\_tables\_list.html.

## **Product sustainability**

Information about Cisco's environmental sustainability policies and initiatives for our products, solutions, operations, and extended operations or supply chain is provided in the "Environment Sustainability" section of Cisco's <u>Corporate Social Responsibility</u> (CSR) Report.

Reference links to information about key environmental sustainability topics (mentioned in the "Environment Sustainability" section of the CSR Report) are provided in the following table:

Sustainability topic	Reference
Information on product material content laws and regulations	<u>Materials</u>
Information on electronic waste laws and regulations, including products, batteries, and packaging	WEEE compliance

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## **Document history**

New or revised topic	Described In	Date
Initial document		April 14, 2020
Edited by vendor		July 13, 2020
Reviewed		July 16, 2020
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Updated to reflect orderable PIDs only		November 22, 2022

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