

CISCO SWITCH CATALYST 2960X DATASHEET

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Leading Network Hardware Supplier

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Contact Us

Tel: +1-626-239-8066 (USA) +852-3050-1066 / +852-3174-6166 /

+852-9795-4940 (Hong Kong)

Fax: +852-3050-1066 (Hong Kong)

Email: cisco@router-switch.com (Sales Inquiries)

ccie-support@router-switch.com (CCIE Technical Support)

OVERVIEW

Cisco® Catalyst® 2960-X Series Switches are fixed-configuration, stackable Gigabit Ethernet switches that provide enterprise-class access for campus and branch applications (Figure 1). Designed for operational simplicity to lower total cost of ownership, they enable scalable, secure and energy-efficient business operations with intelligent services and a range of advanced Cisco IOS® Software features.

APPEARANCE

Figure 1. Cisco Switch Catalyst 2960X



KEY FEATURES AND BENEFITS

- **24 or 48 Gigabit Ethernet ports with line-rate forwarding performance**
- **Gigabit Small Form-Factor Pluggable (SFP) or 10G SFP+ uplinks**
- **FlexStack Plus for stacking of up to 8 switches with 80 Gbps of stack throughput (optional)**
- **Power over Ethernet Plus (PoE+) support with up to 740W of PoE budget**
- **24-port PoE fanless switch for deployment outside the wiring closet**
- **Reduced power consumption and advanced energy management features**
- **USB and Ethernet management interfaces for simplified operations**
- **Application visibility and capacity planning with integrated Full (Flexiable) NetFlow and NetFlow-Lite**

- LAN Base or LAN Lite Cisco IOS software features
- Enhanced limited lifetime warranty (E-LLW) offering next-business-day hardware replacement
- Identify, classify and control of trusted internal network traffic through Domain Name System as an Authoritative Source (DNS-AS)

PRODUCT SPECIFICATIONS OF CISCO SWITCH CATALYST 2960X	
General	
model info:	WS-2960X-48TS-L
enclosure type	Rack-mountable - 1U
Ports	48 x 10/100/1000 + 4 x 1G SFP
Network management Interface	10/100 Mbps Ethernet (RJ-45)
Available PoE Power	None
Forwarding bandwidth(Gbps)	108Gbps
Maximum stacking number	8
Stack Bandwidth	80G
Forwarding Performance	107.1Mpps
Switching bandwidth	216Gbps
Maximum active VLANs	1023

MAC Address Table Size	16K (default)
CPU	APM86392 600MHz dual core
RAM	512 MB
Flash Memory	128 MB
Status Indicators	Per-port status: Link integrity, disabled, activity, speed, and full duplex System status: System, RPS, Stack link status, link duplex, and link speed
Expansion / Connectivity	
Console ports	USB (Type-B), Ethernet (RJ-45)
Stacking cable	Optional
Power Redundancy	Option (PWR-RPS2300)
Voltage range (Auto)	110V-240V
Power Consumption Operational	0.051KVA
Miscellaneous	
Width	17.5 Inches (44.5 cm)
Depth	11 Inches (27.9 Cm)
Height	1.75 Inches (4.5 cm)
Package Weight	20.26 Pounds (9.19Kg)
Weight	9.4 Pounds (4.2Kg)
Rack Mounting Kit	optional

MTBF in hours	476,560
Compliant Standards	<p>IEEE 802.1D Spanning Tree Protocol IEEE 802.1p CoS Prioritization IEEE 802.1Q VLAN IEEE 802.1s IEEE 802.1w IEEE 802.1X IEEE 802.1ab (LLDP) IEEE 802.3ad IEEE 802.3af and IEEE 802.3at IEEE 802.3ah (100BASE-X single/multimode fiber only) IEEE 802.3x full duplex on 10BASE-T, 100BASE-TX, and 1000BASE-T ports</p> <p>IEEE 802.1D Spanning Tree Protocol IEEE 802.1p CoS Prioritization IEEE 802.1Q VLAN IEEE 802.1s IEEE 802.1w IEEE 802.1X IEEE 802.1ab (LLDP) IEEE 802.3ad IEEE 802.3af and IEEE 802.3at IEEE 802.3ah (100BASE-X single/multimode fiber only) IEEE 802.3x full duplex on 10BASE-T, 100BASE-TX, and 1000BASE-T ports</p>
System software / license	
System software	IOS LAN BASE
license	NERGY-MGT-100-K9, EW-DO-100-DE
features	<p>RPS Support Jumbo Frames VLANS Voice Vlan VTPv2 CDPv2 LLDP</p>

	<p>802.3ad LACP PVST/PVST+ 802.1W/802.1S Port Fast/Uplink Fast port CoS Trust and Override Scheduling Priority Queuing Configure CoS Priority Queues Weighted Tail Drop DSCP transparency</p>
Network security	<p>SSH, SSL and SCP RADIUS and TACACS+ SNMPv3 crypto 802.1x 802.1x Accounting / MIB 802.1x w/ port security 802.1x w/Voice VLAN 802.1x Guest VLAN 802.1x VLAN assignment 802.1x MAC-Auth Bypass BPDU/Root Guard Port Security Private VALN Edge Storm Control Block unknown unicast and multicast IGMP Snooping IGMP Filter/Throttle</p>
Management and Troubleshooting	<p>Auto-MDOX TDR UDLD IP SLA Responder layer 2 / IP Traceroute SPAN RSPAN Express Setup Device Manager Cisco Network Assistant Smartports + Advisor</p>

	<p>Troubleshooting Advisor</p> <p>Drag-and-drop Cisco IOS Upgrade</p> <p>IP Address DHCP</p> <p>Autoinstall with saved configuration</p> <p>Configuration Replace</p> <p>DHCP Auto Image Upgrade</p> <p>DHCP Port Based Allocation</p> <p>Error Disable MIB</p>
Environmental Ranges	
Operating temperature up to 5000 ft (1500 m)	23°F to 113°F
Operating temperature up to 10,000 ft (3000 m)	23°F to 104°F
Short-term exception at sea level*	23°F to 131°F
Short-term exception up to 5000 feet (1500 m)*	23°F to 122°F
Short-term exception up to 10,000 feet (3000 m)*	23°F to 113°F
Short-term exception up to 13,000 feet (4000 m)*	23° to 104°F
Storage temperature up to 15,000 feet (4573 m)	-13° to 158°F
Operating altitude	Up to 10,000 feet

Storage altitude	Up to 13,000 feet
Operating relative humidity	10% to 95% noncondensing
Storage relative humidity	10% to 95% noncondensing

CISCO SWITCH CATALYST 2960X BASIC ORDERING INFORMATION

Cisco Catalyst 2960-X Series Switches Ordering Information

Part Number	10/100/1000 Ethernet Interfaces	Uplink Interfaces	Cisco IOS Software Feature Set	Available PoE Power	FlexStack-Plus Stacking
WS-C2960X-48FPD-L	48	2 SFP+	LAN Base	740W	Optional
WS-C2960X-48LPD-L	48	2 SFP+	LAN Base	370W	Optional
WS-C2960X-24PD-L	24	2 SFP+	LAN Base	370W	Optional
WS-C2960X-48TD-L	48	2 SFP+	LAN Base	-	Optional
WS-C2960X-24TD-L	24	2 SFP+	LAN Base	-	Optional
WS-C2960X-48FPS-L	48	4 SFP	LAN Base	740W	Optional
WS-C2960X-48LPS-L	48	4 SFP	LAN Base	370W	Optional
WS-C2960X-24PS-L	24	4 SFP	LAN Base	370W	Optional
WS-C2960X-24PSQ-L	24	2 SFP, 2 10/100/1000BT	LAN Base	110W	No
WS-C2960X-48TS-L	48	4 SFP	LAN Base	-	Optional

Part Number	10/100/1000 Ethernet Interfaces	Uplink Interfaces	Cisco IOS Software Feature Set	Available PoE Power	FlexStack-Plus Stacking
WS-C2960X-24TS-L	24	4 SFP	LAN Base	-	Optional
WS-C2960X-48TS-LL	48	2 SFP	LAN Lite	-	No
WS-C2960X-24TS-LL	24	2 SFP	LAN Lite	-	No

Cisco Catalyst 2960-XR Configurations Ordering Information

Part Number	10/100/1000 Ethernet Interfaces	Uplink Interfaces	Cisco IOS Software Feature Set	Available PoE Power	Second FRU Power Supply Option	FlexStack-Plus Stacking
WS-C2960XR-48FPD-I	48	2 SFP+	IP Lite	740W	1025W	Optional
WS-C2960XR-48LPD-I	48	2 SFP+	IP Lite	370W	640W	Optional
WS-C2960XR-24PD-I	24	2 SFP+	IP Lite	370W	640W	Optional
WS-C2960XR-48TD-I	48	2 SFP+	IP Lite	-	250W	Optional
WS-C2960XR-24TD-I	24	2 SFP+	IP Lite	-	250W	Optional
WS-C2960XR-48FPS-I	48	4 SFP	IP Lite	740W	1025W	Optional
WS-C2960XR-48LPS-I	48	4 SFP	IP Lite	370W	640W	Optional
WS-C2960XR-24PS-I	24	4 SFP	IP Lite	370W	640W	Optional

WS-C2960XR-48TS-I	48	4 SFP	IP Lite	-	250W	Optional
WS-C2960XR-24TS-I	24	4 SFP	IP Lite	-	250W	Optional

Cisco Catalyst 2960-X Accessories

Part Numbers	Description
C2960X-STACK	FlexStack-Plus hot-swappable stacking module
CAB-STK-E-0.5M	FlexStack-Plus stacking cable with a 0.5 m length
CAB-STK-E-1M	FlexStack-Plus stacking cable with a 1.0 m length
CAB-STK-E-3M	FlexStack-Plus stacking cable with a 3.0 m length
CAB-CONSOLE-RJ45	Console cable 6 feet with RJ45
CAB-CONSOLE-USB	Console cable 6 feet with USB Type A and mini-B connectors
PWR-CLP	Power cable restraining clip
RCKMNT-1RU-2KX=	Spare rack-mount kit for Cisco Catalyst 2960-X and 2960-XR Series for 19-inch racks
RCKMNT-REC-2KX=	1 RU recessed rack-mount kit for Cisco Catalyst 2960-X and 2960-XR Series

Cisco Catalyst 2960-X Redundant Power Supply Options

Part Numbers	Description
PWR-RPS2300	Cisco Redundant Power System 2300 and blower, no power supply
BLNK-RPS2300=	Spare bay insert for Cisco Redundant Power System 2300 for Cisco Catalyst 2960 and Cisco Catalyst 2960-X switches
CAB-RPS2300-E=	Spare RPS2300 cable for Cisco Catalyst 2960-X switches
BLWR-RPS2300=	Spare 45 CFM blower for RPS 2300
C3K-PWR-750WAC=	RPS 2300 750W AC power supply spare for Cisco Catalyst 2960-X

Cisco Catalyst 2960-XR Power Supply Options

Part Numbers	Description
PWR-C2-250WAC ^[4]	Second FRU power supply and fan for all non-PoE 2960-XR switches, provides 250W AC of power
PWR-C2-640WAC ⁴	Second FRU power supply and fan for all 370W PoE+ 2960-XR switches, provides 640W AC of power
PWR-C2-1025WAC ⁴	Second FRU power supply and fan for all 740W PoE+ 2960-XR switches, provides 1025W AC of power
PWR-C2-250WAC=	Spare FRU power supply and fan for all non-PoE 2960-XR switches, provides 250W AC of power
PWR-C2-640WAC=	Spare FRU power supply and fan for all 370W PoE+ 2960-XR switches, provides 640W AC of power
PWR-C2-1025WAC=	Spare FRU power supply and fan for all 740W PoE+ 2960-XR switches, provides 1025W AC of power

Power Cords for Cisco Catalyst 2960-X Product Family

Part Numbers	Description
CAB-16AWG-AC	AC power cord, 16AWG
CAB-ACE	AC power cord (Europe), C13, CEE 7, 1.5M
CAB-L620P-C13-US	Power cord, 250VAC, 15A, NEMA L6-20 to C13, US
CAB-ACI	AC power cord (Italy), C13, CEI 23-16, 2.5m
CAB-ACU	AC power cord (UK), C13, BS 1363, 2.5m
CAB-ACA	AC power cord (China/Australia), C13, AS 3112, 2.5m
CAB-ACS	AC power cord (Switzerland), C13, IEC 60884-1, 2.5m
CAB-ACR	AC power cord (Argentina), C13, EL 219 (IRAM 2073), 2.5m

Part Numbers	Description
CAB-ACC	CORD, PWR, CHINA, 10A, IEC 320, C13 (APN=CS-PWR-CH)
CAB-JPN-12A	CABASY, POWER CORD, JAPAN 2P, PSE, 12A @125VAC
CAB-L620P-C13-JPN	Power cord, 250VAC, 15A, NEMA L6-20 to C13, JAPAN
CAB-IND	Power cable for India
CAB-C15-ISR	Power cable for Israel
CAB-ACSA	Power cable for South Africa
CAB-AC15A-90L-US	15A AC power cord, left angle (United States)
CAB-ACE-RA	Power cord Europe, right angle
CAB-ACI-RA	Power cord Italian, right angle
CAB-ACU-RA	Power cord UK, right angle
CAB-ACC-RA	Power cord China, right angle
CAB-ACA-RA	Power cord, Australian, right angle
CAB-ACS-RA	Power cord for Switzerland, right angle
CAB-ACR-RA	Power cord, Argentina, right angle
CAB-JPN-RA	Power cord, Japan, right angle
CAB-C15-CBN	Cabinet jumper power cord, 250 VAC 13A, C14-C15 connectors
CAB-ACBZ-12A	AC power cord (Brazil) 12A/125V BR-3-20 plug for less than 12A device

Power Cords for Cisco Catalyst 2960-XR Product Family

Part Numbers	Description
CAB-TA-NA=	AC power cord for Cisco Catalyst 2960XR (North America)

Part Numbers	Description
CAB-TA-AP=	AC power cord for Cisco Catalyst 2960XR (Australia)
CAB-TA-AR=	AC power cord for Cisco Catalyst 2960XR (Argentina)
CAB-TA-SW=	AC power cord for Cisco Catalyst 2960XR (Switzerland)
CAB-TA-UK=	AC power cord for Cisco Catalyst 2960XR (United Kingdom)
CAB-TA-JP=	AC power cord for Cisco Catalyst 2960XR (Japan)
CAB-TA-250V-JP=	Japan 250VAC power cord for Cisco Catalyst 2960XR (Japan)
CAB-TA-EU=	AC power cord for Cisco Catalyst 2960XR (Europe)
CAB-TA-IT=	AC power cord for Cisco Catalyst 2960XR (Italy)
CAB-TA-IN=	AC power cord for Cisco Catalyst 2960XR (India)
CAB-TA-CN=	AC power cord for Cisco Catalyst 2960XR (China)
CAB-TA-DN=	AC power cord for Cisco Catalyst 2960XR (Denmark)
CAB-TA-IS=	AC power cord for Cisco Catalyst 2960XR (Israel)
CAB-C15-CBN=	Cabinet jumper power cord, 250 VAC 13A, C14-C15 connectors
CAB-C15-CBN-JP=	Japan Cabinet Jumper Power Cord, 250 VAC 13A, C14-C15

SOURCES

https://www.cisco.com/c/en/us/products/collateral/switches/catalyst-2960-x-series-switches/data_sheet_c78-728232.html