



Cisco Catalyst 2960-XR Series Switch Datasheet



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Leading Network Hardware Supplier

CONTENT

Overview	1
Appearance	2
Key Features and Benefits	3
Cisco Catalyst 2960-XR Series Switches Product Specifications	4
Cisco Catalyst 2960-XR Series Switches Basic Ordering Information	12
Sources	14

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OVERVIEW

Cisco® Catalyst® 2960-XR Series Switches are fixed-configuration, stackable Gigabit Ethernet switches that provide enterprise-class access for campus and branch applications. 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.

There are 10 models in this series:

Catalyst 2960XR-24PD-I Switch
Catalyst 2960XR-24PS-I Switch
Catalyst 2960XR-24TD-I Switch
Catalyst 2960XR-24TS-I Switch
Catalyst 2960XR-48FPD-I Switch

Catalyst 2960XR-48FPS-I Switch
Catalyst 2960XR-48LPD-I Switch
Catalyst 2960XR-48TD-I Switch
Catalyst 2960XR-48LPS-I Switch
Catalyst 2960XR-48TS-I Switch

APPEARANCE

Figure 1. Cisco Catalyst 2960XR-24PD-I Switch



Figure 2. Catalyst 2960XR-48FPS-I Switch



Figure 3. Catalyst 2960XR-24PS-I Switch



Figure 4. Catalyst 2960XR-48LPD-I Switch



Figure 5. Catalyst 2960XR-24TD-I Switch



Figure 6. Catalyst 2960XR-48TD-I Switch



Figure 7. Catalyst 2960XR-24TS-I Switch



Figure 8. Catalyst 2960XR-48LPS-I Switch



Figure 9. Catalyst 2960XR-48FPD-I Switch



Figure 10. Catalyst 2960XR-48TS-I Switch



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)
- Power resiliency with optional dual field-replaceable power supplies
- IP Lite Cisco IOS software with dynamic routing and Layer 3 features

CISCO CATALYST 2960-XR SERIES SWITCHES PRODUCT SPECIFICATIONS

Hardware Specifications		
Flash memory	128 MB for LAN Base & IP Lite SKUs, 64 MB for LAN Lite SKUs	
DRAM	512 MB for LAN Base and 256 MB for LAN Lite	
CPU	APM86392 600MHz dual core	
Console Ports	USB (Type-B), Ethernet (RJ-45)	
Storage Interface	USB (Type-A) for external flash storage	
Network Management Interface	10/100 Mbps Ethernet (RJ-45)	
2960-XR IP Lite Performance and Scalability		
Forwarding bandwidth	108 Gbps	
Switching bandwidth*	216 Gbps	
Maximum active VLANs	1023	
VLAN IDs available	4096	
Maximum transmission unit (MTU)-L3 packet	9198 bytes	
Jumbo frame - Ethernet frame	9216 bytes	
Catalyst 2960-XR Family Forwarding Performance		
Forwarding Rate	64-Byte L3 Packets	
Cisco Catalyst 2960XR-48FPD-I	130.9 Mpps	
Cisco Catalyst 2960XR-48LPD-I	130.9 Mpps	
Cisco Catalyst 2960XR-24PD-I	95.2 Mpps	
Cisco Catalyst 2960XR-48TD-I	130.9 Mpps	
Cisco Catalyst 2960XR-24TD-I	95.2 Mpps	
Cisco Catalyst 2960XR-48FPS-I	107.1 Mpps	
Cisco Catalyst 2960XR-48LPS-I	107.1 Mpps	
Cisco Catalyst 2960XR-24PS-I	71.4 Mpps	
Cisco Catalyst 2960XR-48TS-I	107.1 Mpps	
Cisco Catalyst 2960XR-24TS-I	71.4 Mpps	
Cisco Catalyst 2960-XR Series Mechanical Specifications		
Models (The Power Supplies Could Add Up to 3.1 " to the Depth of the 2960XR Chassis)		
Dimensions	Inches (H x D x W)	Centimeters (H x D x W)

WS-C2960XR-48FPD-I	1.75 x 16.0 x 17.5	4.45 x 40.8 x 44.5
WS-C2960XR-48LPD-I	1.75 x 16.0 x 17.5	4.45 x 40.8 x 44.5
WS-C2960XR-48TD-I	1.75 x 16.0 x 17.5	4.45 x 40.8 x 44.5
WS-C2960XR-24PD-I	1.75 x 16.0 x 17.5	4.45 x 40.8 x 44.5
WS-C2960XR-24TD-I	1.75 x 16.0 x 17.5	4.45 x 40.8 x 44.5
WS-C2960XR-48FPS-I	1.75 x 16.0 x 17.5	4.45 x 40.8 x 44.5
WS-C2960XR-48LPS-I	1.75 x 16.0x 17.5	4.45 x 40.8 x 44.5
WS-C2960XR-48TS-I	1.75 x 16.0 x 17.5	4.45 x 40.8 x 44.5
WS-C2960XR-24PS-I	1.75 x 16.0 x 17.5	4.45 x 40.8 x 44.5
WS-C2960XR-24TS-I	1.75 x 16.0 x 17.5	4.45 x 40.8 x 44.5
Weights	Pounds	Kilograms
WS-C2960XR-48FPD-I	14.6	6.6
WS-C2960XR-48LPD-	14.0	6.4
WS-C2960XR-48TD-I	13.3	6.1
WS-C2960XR-24PD-I	13.6	6.2
WS-C2960XR-24TD-I	13.0	5.9
WS-C2960XR-48FPS-I	14.7	6.7
WS-C2960XR-48LPS-I	14.2	6.4
WS-C2960XR-48TS-I	13.2	6.0
WS-C2960XR-24PS-I	13.7	6.2
WS-C2960XR-24TS-I	13.0	5.9

Environmental Specifications

Environmental Ranges

	Fahrenheit	Centigrade
Operating temperature up to 5000 ft (1500 m)	23°F to 113°F	-5°C to 45°C
Operating temperature up to 10,000 ft (3000 m)	23°F to 104°F	-5°C to 40°C
Short-term exception at sea level*	23°F to 131°F	-5°C to 55°C
Short-term exception up to 5000 feet (1500 m)*	23°F to 122°F	-5°C to 50°C

Short-term exception up to 10,000 feet (3000 m)*	23°F to 113°F	-5°C to 45°C		
Short-term exception up to 13,000 feet (4000 m)*	23° to 104°F	-5°C to 40°C		
Storage temperature up to 15,000 feet (4573 m)	-13° to 158°F	-25° to 70°C		
	Feet	Meters		
Operating altitude	Up to 10,000	Up to 3000		
Storage altitude	Up to 13,000	Up to 4000		
Model	Sound Pressure		Sound Power	
	LpA (Typical)	LpAD (Maximum)	LwA (Typical)	LwAD (Maximum)
Cisco Catalyst 2960XR-48FPD-I	40dB	43dB	5.2B	5.5B
Cisco Catalyst 2960XR-48LPD-I	40dB	43dB	5.2B	5.5B
Cisco Catalyst 2960XR-24PD-I	40dB	43dB	5.2B	5.5B
Cisco Catalyst 2960XR-48TD-I	22dB	25dB	3.3B	3.6B
Cisco Catalyst 2960XR-24TD-I	22dB	25dB	3.3B	3.6B
Cisco Catalyst 2960XR-48FPS-I	40dB	43dB	5.2B	5.5B
Cisco Catalyst 2960XR-48LPS-I	40dB	43dB	5.2B	5.5B
Cisco Catalyst 2960XR-24PS-I	40dB	43dB	5.2B	5.5B
Cisco Catalyst 2960XR-48TS-I	22dB	25dB	3.3B	3.6B
Cisco Catalyst 2960XR-24TS-I	22dB	25dB	3.3B	3.6B
Predicted Reliability				
Model	MTBF in hours**			
Cisco Catalyst 2960XR-48FPD-I	231,590			
Cisco Catalyst 2960XR-48LPD-I	275,430			
Cisco Catalyst 2960XR-24PD-I	322,740			
Cisco Catalyst 2960XR-48TD-I	440,880			
Cisco Catalyst 2960XR-24TD-I	561,890			
Cisco Catalyst 2960XR-48FPS-I	230,860			
Cisco Catalyst 2960XR-48LPS-I	274,380			
Cisco Catalyst 2960XR-24PS-I	321,290			
Cisco Catalyst 2960XR-48TS-I	438,130			

Cisco Catalyst 2960XR-24TS-I	557,320
Cisco PWR-C2-250WAC	1,000,000
Cisco PWR-C2-640WAC	1,000,000
Cisco PWR-C2-1025WAC	1,000,000
Management and Standards Support	
Category	Specification
Management	<ul style="list-style-type: none"> • BRIDGE-MIB • CISCO-CABLE-DIAG-MIB • CISCO-CDP-MIB • CISCO-CLUSTER-MIB • CISCO-CONFIG-COPY-MIB • CISCO-CONFIG-MAN-MIB • CISCO-DHCP-SNOOPING-MIB • CISCO-ENTITY-VENDORTYPE-OID-MIB • CISCO-ENVMON-MIB • CISCO-ERR-DISABLE-MIB • CISCO-FLASH-MIB • CISCO-FTP-CLIENT-MIB • CISCO-IGMP-FILTER-MIB • CISCO-IMAGE-MIB • CISCO-TC-MIB • CISCO-TCP-MIB • CISCO-UDLDP-MIB • CISCO-VLAN-IFTABLE • RELATIONSHIP-MIB • CISCO-VLAN-MEMBERSHIP-MIB • CISCO-VTP-MIB • ENTITY-MIB • ETHERLIKE-MIB • IEEE8021-PAE-MIB • IEEE8023-LAG-MIB • IF-MIB • INET-ADDRESS-MIB • OLD-CISCO-CHASSIS-MIB • OLD-CISCO-FLASH-MIB • OLD-CISCO-INTERFACES-MIB • OLD-CISCO-IP-MIB • OLD-CISCO-SYS-MIB • OLD-CISCO-TCP-MIB • OLD-CISCO-TS-MIB • RFC1213-MIB • RMON-MIB • RMON2-MIB • SNMP-FRAMEWORK-MIB • SNMP-MPD-MIB • SNMP-NOTIFICATION-MIB • SNMP-TARGET-MIB

	<ul style="list-style-type: none"> • CISCO-IP-STAT-MIB • CISCO-LAG-MIB • CISCO-MAC-NOTIFICATION-MIB • CISCO-MEMORY-POOL-MIB • CISCO-PAGP-MIB • CISCO-PING-MIB • CISCO-POE-EXTENSIONS-MIB • CISCO-PORT-QOS-MIB • CISCO-PORT-SECURITY-MIB • CISCO-PORT-STORM-CONTROL-MIB • CISCO-PRODUCTS-MIB • CISCO-PROCESS-MIB • CISCO-RTTMON-MIB • CISCO-SMI-MIB • CISCO-STP-EXTENSIONS-MIB • CISCO-SYSLOG-MIB 	<ul style="list-style-type: none"> • SNMPv2-MIB • TCP-MIB • UDP-MIB • ePM MIB • CISCO-FLEXSTACK-PLUS-MIB (2960-X)
Standards	<ul style="list-style-type: none"> • IEEE 802.1D Spanning Tree Protocol 	<ul style="list-style-type: none"> • IEEE 802.3 10BASE-T • IEEE 802.3u 100BASE-TX

	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • IEEE 802.3ab 1000BASE-T • IEEE 802.3z 1000BASE-X • RMON I and II standards • SNMP v1, v2c, and v3 • IEEE 802.3az • IEEE 802.3ae 10Gigabit Ethernet • IEEE 802.1ax
RFC compliance	<ul style="list-style-type: none"> • RFC 768 - UDP • RFC 783 - TFTP • RFC 791 - IP • RFC 792 - ICMP • RFC 793 - TCP • RFC 826 - ARP • RFC 854 - Telnet • RFC 951 - Bootstrap Protocol (BOOTP) • RFC 959 - FTP • RFC 1112 - IP Multicast and IGMP 	<ul style="list-style-type: none"> • RFC 1902-1907 - SNMP v2 • RFC 1981 - Maximum Transmission Unit (MTU) Path Discovery IPv6 • RFC 2068 - HTTP • RFC 2131 - DHCP • RFC 2138 - RADIUS • RFC 2233 - IF MIB v3 • RFC 2373 - IPv6 Aggregatable Addrs • RFC 2460 - IPv6 • RFC 2461 - IPv6 Neighbor Discovery • RFC 2462 - IPv6 Autoconfiguration • RFC 2463 - ICMP IPv6 • RFC 2474 - Differentiated Services (DiffServ) Precedence • RFC 2597 - Assured Forwarding • RFC 2598 - Expedited Forwarding

	<ul style="list-style-type: none"> • RFC 1157 - SNMP v1 • RFC 1166 - IP Addresses • RFC 1256 - Internet Control Message Protocol (ICMP) Router Discovery • RFC 1305 - NTP • RFC 1492 - TACACS+ • RFC 1493 - Bridge MIB • RFC 1542 - BOOTP extensions • RFC 1643 - Ethernet Interface MIB • RFC 1757 - RMON • RFC 1901 - SNMP v2C 	<ul style="list-style-type: none"> • RFC 2571 - SNMP Management • RFC 2865 - RADIUS • RFC 3046 - DHCP Relay Agent Information Option • RFC 3376 - IGMP v3 • RFC 3580 - 802.1X RADIUS
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Input Voltage and Current

Model	Voltage (Auto ranging)	Current	Frequency
Cisco Catalyst 2960XR-48FPD-I	100 to 240 VAC	10A to 5A	50 to 60Hz
Cisco Catalyst 2960XR-48LPD-I		6A to 3 A	
Cisco Catalyst 2960XR-24PD-I		6A to 3 A	
Cisco Catalyst 2960XR-48TD-I		1A to 0.5 A	
Cisco Catalyst 2960XR-24TD-I		1A to 0.5 A	
Cisco Catalyst 2960XR-48FPS-I		10A to 5 A	
Cisco Catalyst 2960XR-48LPS-I		6A to 3 A	
Cisco Catalyst 2960XR-24PS-I		6A to 3 A	
Cisco Catalyst 2960XR-48TS-I		1A to 0.5 A	
Cisco Catalyst 2960XR-24TS-I		1A to 0.5 A	

Power Rating (Switch maximum consumption values)				
Cisco Catalyst 2960XR-48FPD-I	0.89KVA			
Cisco Catalyst 2960XR-48LPD-I	0.48KVA			
Cisco Catalyst 2960XR-24PD-I	0.46KVA			
Cisco Catalyst 2960XR-48TD-I	0.047KVA			
Cisco Catalyst 2960XR-24TD-I	0.039KVA			
Cisco Catalyst 2960XR-48FPS-I	0.89KVA			
Cisco Catalyst 2960XR-48LPS-I	0.47KVA			
Cisco Catalyst 2960XR-24PS-I	0.46KVA			
Cisco Catalyst 2960XR-48TS-I	0.046KVA			
Cisco Catalyst 2960XR-24TS-I	0.038KVA			
Measured Power Consumption in Watts				
Model	0% Traffic	10% Traffic	100% Traffic	Weighted Average
Cisco Catalyst 2960XR-48FPD-I	46.7	61.8	62.5	61.9
Cisco Catalyst 2960XR-48LPD-I	40.7	54.6	55.9	54.8
Cisco Catalyst 2960XR-24PD-I	36.1	42.9	43.7	43.0
Cisco Catalyst 2960XR-48TD-I	29.7	44.7	45.6	44.8
Cisco Catalyst 2960XR-24TD-I	29.3	37.2	38.1	37.3
Cisco Catalyst 2960XR-48FPS-I	44.8	58.5	58.8	58.5
Cisco Catalyst 2960XR-48LPS-I	37.9	52.8	53.0	52.9
Cisco Catalyst 2960XR-24PS-I	36.5	43.2	43.4	43.2
Cisco Catalyst 2960XR-48TS-I	30.0	44.8	45.0	44.8
Cisco Catalyst 2960XR-24TS-I	28.8	36.0	36.2	36.0
Safety and Compliance				
Specification	Description			
Safety	UL 60950-1 Second Edition CAN/CSA-C22.2 No. 60950-1 Second Edition EN 60950-1 Second Edition IEC 60950-1 Second Edition AS/NZS 60950-1			
EMC - Emissions	47CFR Part 15 (CFR 47) Class A			

	AS/NZS CISPR22 Class A CISPR22 Class A EN55022 Class A ICES003 Class A VCCI Class A EN61000-3-2 EN61000-3-3 KN22 Class A CNS13438 Class A
EMC - Immunity	EN55024 CISPR24 EN300386 KN24
Environmental	Reduction of Hazardous Substances (RoHS) including Directive 2011/65/EU
Telco	Common Language Equipment Identifier (CLEI) code
US Government Certifications	USGv6 and IPv6 Ready Logo

CISCO CATALYST 2960-XR SERIES SWITCHES BASIC ORDERING INFORMATION

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
<u>WS-C2960XR-48FPD-I</u>	48	2 SFP+	IP Lite	740W	1025W	Optional
<u>WS-C2960XR-48LPD-I</u>	48	2 SFP+	IP Lite	370W	640W	Optional
<u>WS-C2960XR-24PD-I</u>	24	2 SFP+	IP Lite	370W	640W	Optional

<u>WS-C2960XR-48TD-I</u>	48	2 SFP+	IP Lite	-	250W	Optional
<u>WS-C2960XR-24TD-I</u>	24	2 SFP+	IP Lite	-	250W	Optional
<u>WS-C2960XR-48FPS-I</u>	48	4 SFP	IP Lite	740W	1025W	Optional
<u>WS-C2960XR-48LPS-I</u>	48	4 SFP	IP Lite	370W	640W	Optional
<u>WS-C2960XR-24PS-I</u>	24	4 SFP	IP Lite	370W	640W	Optional
<u>WS-C2960XR-48TS-I</u>	48	4 SFP	IP Lite	-	250W	Optional
<u>WS-C2960XR-24TS-I</u>	24	4 SFP	IP Lite	-	250W	Optional

Cisco Catalyst 2960-XR Power Supply Options

<u>PWR-C2-250WAC=</u>	Second FRU power supply and fan for all non-PoE 2960-XR switches, provides 250W AC of power
PWR-C2-640WAC4	Second FRU power supply and fan for all 370W PoE+ 2960-XR switches, provides 640W AC of power
PWR-C2-1025WAC4	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
<u>PWR-C2-640WAC=</u>	Spare FRU power supply and fan for all 370W PoE+ 2960-XR switches, provides 640W AC of power
<u>PWR-C2-1025WAC=</u>	Spare FRU power supply and fan for all 740W PoE+ 2960-XR switches, provides 1025W AC of power

Power Cords for Cisco Catalyst 2960-XR Product Family

<u>CAB-TA-NA=</u>	AC power cord for Cisco Catalyst 2960XR (North America)
<u>CAB-TA-AP=</u>	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
CAB-TA-JP-RA=	Japan AC Right Angled Power Cord for Cisco Catalyst 2960XR

SOURCES

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

<https://www.cisco.com/c/en/us/support/switches/catalyst-2960-xr-series-switches/tsd-products-support-series-home.html>