

Product Details

Description

The Cisco **WS-C2960X-48TD-L** is part of the Cisco catalyst 2960X Series Switches. They are fixed-configuration, stackable Gigabit Ethernet switches that provide enterprise-class access for campus and branch applications. They are 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.

Features

- 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 NetFlow-Lite

- LAN Base or LAN Lite Cisco IOS software features
- Enhanced limited lifetime warranty (E-LLW) offering next-business-day hardware replacement

Specification

10/100/1000 Ethernet Port	48
Uplink Interfaces	2SFP +
Cisco IOS Software Image	LAN Base
FlexStack Plus Capability	Yes
Software Features	Available for LAN Base and LAN Lite feature sets
Stack Bandwidth	40G
Stack Limit	4
Default Power Supply	PWR-C2-250WAC
Operating Temperature	23°F to 113°F
Short Term exception	2 3°F to 113°F
Operating Relative Humidity	10% to 95% noncondensing

Storage Relative Humidity	10% to 95% noncondensing
Acoustic Noise	<p>Sound Pressure :</p> <ul style="list-style-type: none"> - LpA (Typical): 42dB - LpAD (Maximum): 46dB <p>Sound Power:</p> <ul style="list-style-type: none"> -LwA(Typical): 5.1B -LwAD(Maximum): 5.5B

Technical Specification

Item	Specification
	<ul style="list-style-type: none"> • MAC-based VLAN assignment enables different users to authenticate on different VLANs • Cisco TrustSec uses SXP to simplify security and policy enforcement throughout the network. • IPv6 First-Hop Security enhances Layer-2 and Layer-3 network access from proliferating IPv6 devices especially BYOD devices. • Device Sensor and Device Classifier enable seamless versatile device profiles including BYOD devices. • Cisco Trust Anchor Technology enables easy distribution of a single universal image for all models of Catalyst 2960-X by verifying the authenticity of IOS images. • Cisco Threat Defense features including Port Security, Dynamic ARP Inspection, and IP Source Guard.

Network Security	<ul style="list-style-type: none"> • Private VLANs restrict traffic between hosts in a common segment • Unicast Reverse Path Forwarding • Multidomain Authentication • Access Control Lists for IPv6 and IPv4 for security and QoS ACEs • Secure Shell (SSH) Protocol, Kerberos, and Simple Network Management Protocol Version 3 (SNMPv3) • Switched Port Analyzer • TACACS+ and RADIUS authentication • MAC Address Notification • Multilevel security on console access • Bridge protocol data unit (BPDU) Guards • Spanning Tree Root Guard (STRG) • IGMP filtering • Dynamic VLAN
Redundancy and Resiliency	<ul style="list-style-type: none"> • Cross stack EtherChannel • Flexlink • IEEE 802.1s/w Rapid Spanning Tree Protocol and Multiple Spanning Tree Protocol • Per V-LAN Rapid Spanning Tree • Cisco Hot Standby Router Protocol • Switch-port auto recovery • Power redundancy

Quality of Service	<ul style="list-style-type: none"> • Up to eight egress queues per port and strict priority queuing so that the highest priority packets are serviced ahead of all other traffic. • Shaped Round Robin (SRR) scheduling and Weighted Tail Drop (WTD) congestion avoidance. • Flow-based rate limiting and up to 256 aggregate or individual policers per port. • 802.1p class of service (CoS) and Differentiated Services Code Point (DSCP) classification, with marking and reclassification on a per-packet basis by source and destination IP address, MAC address, or Layer 4 TCP/UDP port number. • Cross-stack QoS to allow QoS to be configured across a stack of 2960-X series switches. • The Cisco committed information rate (CIR) function provides bandwidth in increments as low as 8 Kbps. • Rate limiting is provided based on source and destination IP address, source and destination MAC address, Layer 4 TCP/UDP information, or any combination of these fields, using QoS ACLs (IP ACLs or MAC ACLs), class maps, and policy maps.
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)
Forwarding Performance	130.9 Mpps
Predicted Reliability	445,460 MTBF in hours
Voltage and Power Rating	<p>Voltage: 100 to 240 VAC</p> <p>Current : 1A-0.5A</p> <p>Frequency: 50 to 60 Hz</p> <p>Power Rating: 0.039kVA</p>