

Catalyst 2900

This chapter provides information on the Catalyst 2900 switch. The information is organized into the following sections:

- Product Overview
- Standard Features
- Product Numbers

Note Documentation for the Catalyst 2900 switch is available in two forms: on a CD-ROM called Cisco Connection Documentation, Enterprise Series and printed books. A CD and hard-copy installation documentation ship with each chassis, and a configuration note ships with each component ordered. All configuration notes are available on the CD. Additional CDs and a subscription CD update service are also available.

You can also access Cisco technical documentation on the World Wide Web URL <http://www.cisco.com>. For more information, see the chapter “Documentation” at the end of the catalog.

Product Overview

Cisco Systems’ standalone Catalyst 2900 switch combines high-speed configuration flexibility with exceptional affordability for workgroup applications. Available for a very low cost per port, the Catalyst 2900 is ideal for Ethernet workgroups and individual users requiring increased performance and 100BaseT or 100BaseF connectivity to servers and backbones.

The Catalyst 2900 is part of Cisco’s Catalyst family, a comprehensive line of high-performance switches designed to help you easily migrate from traditional shared LANs to fully switched networks. An integral element of the CiscoFusion scalable architecture, the Catalyst family delivers the varying levels of flexibility and cost-effectiveness required for today’s desktop, workgroup, and backbone applications while enabling enterprise-wide switched internetworks.

The Catalyst 2900 switch supports up to 16,000 MAC addresses, has 14 Fast Ethernet ports in a fixed configuration of either 10/100BaseTX or 100BaseFX, and can be used to deploy 100-Mbps Fast Ethernet connections to existing LAN segments or high-performance workstations and servers.

Figure 125 Catalyst 2900 Switch Front Panel

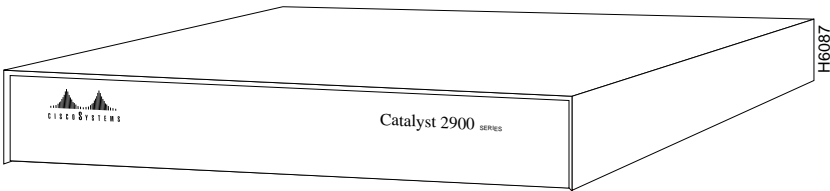


Figure 126 Catalyst 2900 Switch Rear Panel

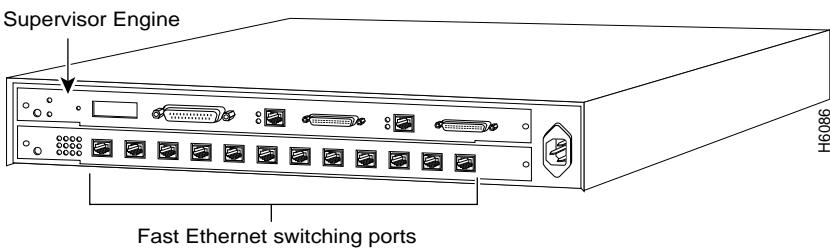


Table 254 Catalyst 2900 Summary of Features

Characteristics	Description
Placement	Rack-mounted, front or back (standard 19-inch rack)
Switching backplane	1.2-Gbps, supports over 1 million packets per second (pps)
Memory	4-MB Flash memory 8-MB DRAM 128-KB NVRAM 512-KB EPROM
Interfaces	Supervisor console: DB-25 (female) Supervisor 100BaseTX: RJ-45 (female), MII ¹ (female) 10/100BaseTX: RJ-45 autosensing 100BaseFX: SC
Duplex	10-Mbps Ethernet: Full or half duplex 100-Mbps Fast Ethernet: Full or half duplex
Network management	Cisco Discovery Protocol Cisco Virtual Trunking Protocol (VTP) SNMP agent v1 (RFC 1155-1157) SNMP MIB II (RFC 1213) Ethernet MIB (RFC 1398) Interface table (RFC 1573) Bridge MIB (1493) Cisco Workgroup MIB

Characteristics	Description
Maximum station-to-station cabling distance	10/100BaseTX Ethernet: Category 5 UTP: 328' (100 m) 100BaseFX Ethernet: 62.75/125 micron fiber (400 m half duplex, 2 km full duplex)
Agency approvals	FCC Class A (47 CFR Part 15) EN 55022A Class B on shielded UTP VCCI Class 1 VDE Class B UL 1950 CSA-C22.2 No. 950 93 EN 60950 CE Mark
LEDs	Status LED on each interface shows successful completion, minor and major failure of power-up diagnostics Link Good LED shows status of any interface Switch Load LEDs show backplane utilization
Dimensions (H x W x D)	3.4 x 17.25 x 23.0" (8.5 x 43.8 x 58.4 cm)
Weight	Typical: 41 lb (18.6 kg) Average shipping: 52 lb (23.6 kg)

1. MII = Media-independent interface.

Table 255 Catalyst 2900 Environmental Specifications

Description	Specification
Input voltage	3A @ 100-240 VAC 50/60 Hz
Power consumption	264W
Heat dissipation	264W, 901 Btu/hour



Standard Features

The Catalyst 2900 switch supports the following standard features:

- 14-port fixed configuration chassis, which includes a single power supply
- Supervisor Engine:
 - High-performance, low latency 1.2-Gbps switching backplane with tri-level priority
 - Hardware-based support for static entries and self-learning of the 16,000 active MAC addresses and associated VLANs in the bridge lookup table
 - 25-MHz 68EC040 network management processor
 - Two Fast Ethernet interfaces (full or half-duplex), which can be ISL trunks
 - Fully integrated support for 1024 VLANs
 - Console port (female DCE EIA/TIA-232)
 - 8-MB DRAM
 - 4-MB Flash EPROM for downloadable microcode and software upgrades

- 256-KB NVRAM
- 192-KB input buffers per interface
- Self-diagnostics at startup and runtime
- Environmental monitoring
- VLAN ISL support
 - Virtual Trunking Protocol (VTP) for distributing VLAN configuration information
 - Virtual Trunking Protocol MIB
 - Dynamic ISL Protocol providing SNMP instrumentation for VTP
- Embedded RMON: provides the following four RMON groups: statistics, history, alarms, events
- Switched port analyzer functionality: allows monitoring of a single port or VLAN via a single monitor port. Segment traffic is “mirrored” to a user-designated port
- Load sharing via spanning-tree priority on a per-VLAN basis on ISL trunks between Catalyst 2900 and Catalyst 5000s; multiple ports can be used to achieve 800 Mbps and above
- 10/100 Fast Ethernet interface with autosensing speed detection for easy upgrade
- Standards-compliant Fast Ethernet interfaces for 100BaseTX and 100BaseFX
- AC power supply
- Power cord
- Rack-mounting hardware
- Cable management system

Product Numbers

Table 256 provides product numbers for the Catalyst 2900 switch.

Table 256 Catalyst 2000 Series Switch Product Numbers

Description	Product Number
Catalyst 2900 14-port (12 10/100BaseTX ports, 2 100BaseTX ports) Fast Ethernet switch, UTP interfaces	WS-C2901
Catalyst 2900 14-port (12 100BaseFX ports, 2 100BaseTX ports) Fast Ethernet switch, fiber (SC) interfaces	WS-C2902
SMARTnet maintenance	CON-SNT-WS-C290X
Documentation	See the chapter “Documentation.”