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Catalyst 5000 Family — Multilayer Switches

Product Family Overview

Cisco's Catalyst 5000 Family which consists of the 5500 Series and the 5000 Series offers switching solutions focused on the needs of high performance wiring closets for large enterprises. The 5000 Family is also well suited for small and mid-range enterprise backbones. The Cisco Catalyst 5000 Family of switches is based upon proven Cisco switching technology that is being used in the largest campus networks in the world.

With integrated frame and cell switching, full support for Cisco IOS-based routing, full support for Fast EtherChannel, Gigabit EtherChannel, and ATM, the Catalyst 5000 Family can support the expanding needs of growing campus systems. The media-independent architecture of the Catalyst 5000 Family supports any type of data communication, including all legacy LAN and Asynchronous Transfer Mode (ATM) switching technologies through a wide range of Ethernet, Fast Ethernet, Gigabit Ethernet, Fiber Distributed Data Interface (FDDI), Token Ring, and ATM switch modules.

Finally, all Catalyst 5000 Family switches support NetFlow switching, which combines the simplicity and speed of switching with the intelligence and scalability of routing to enable multilayer switching (MLS) scalability.

Cisco's Catalyst 5000 Family features five modular chassis: 2-, 5-, 9-, and 13-slot versions. All five chassis share the same set of interface modules and software features, providing scalability while maintaining interoperability and investment protection across all chassis.

Product Overview

Catalyst 5000 Series

The Cisco Catalyst 5000 Series consists of the following multilayer switching systems:

- Catalyst 5000

  The Catalyst 5000 platform is a 5-slot chassis that supports both wiring closet and data center applications. The Catalyst 5000 supports all supervisor engines and will support all new line cards to create a complete networking solution.

  Supervisor II engine ports on 10/100 ports on Fast EtherChannel-capable line cards enable high-speed connectivity between switches, switches and routers, and switches and servers. Up to four Fast Ethernet ports can be grouped to provide up to 800 Mbps of load-sharing, redundant, and point-to-point connections between the Catalyst 5500, 5509, 5505, 5002, and 5000 switches. To achieve higher bandwidth, Gigabit EtherChannel can be deployed, which supports up to 8 Gbps (full-duplex) of inter-switch bandwidth, and is supported across the Catalyst 5000 Family.

  The Catalyst 5000 chassis fits into a standard 19 in. (48.26 cm) rack, and all system components are accessible from the same side of the chassis.

- Catalyst 5002

  The Catalyst 5002 is a 2-slot chassis, and is designed to address the needs of smaller environments that require Catalyst 5000 performance. One slot is used by the supervisor engine, which supports two built-in FastEthernet ports, and the second slot connects to any Catalyst 5000 Family module to enable Ethernet, Fast Ethernet, Token Ring, FDDI, or ATM.

  The Catalyst 5002 chassis comes with two built-in redundant power supplies, and supports all supervisor engines and the Route Switch module.

Catalyst 5500 Series

The Cisco Catalyst 5500 Series consists of the following multilayer switching systems:

- Catalyst 5500

  The Catalyst 5500 is a high-end modular switching platform that provides the scalability, flexibility, and redundancy required for building large, switched intranets and can be used in both wiring closet and backbone applications. It has 13 slots and a gigabit Ethernet-ready architecture that scales to more than 50 Gbps and throughput of tens of millions of packets or cells per second (pps).

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The Cisco 5500 complies with Cisco's Investment Protection standards by seamlessly integrating features and interface modules from the Catalyst 5000, 8500, and Cisco Lightstream 1010 products. With its support for hot-swappable modules, power supplies, and fans, the Catalyst 5500 delivers high availability for production networks. Dual redundant switching engines, power supplies, and a passive backplane design ensure full system redundancy for mission-critical environments.

- Catalyst 5505

  The Catalyst 5505 is a high-performance, 5-slot chassis for the evolving Catalyst 5500 Series. It combines the size of the original Catalyst 5000 with the performance boost and added features of the Catalyst 5500. The Catalyst 5505 is ideal for high-performance wiring closets and data applications.

  The Catalyst 5505 supports Cisco's Investment Protection standards because it can redeploy all the line cards in an existing Catalyst 5000 series. The Catalyst 5505 can be configured for backbone applications with feature-rich, scalable 100/1000 Ethernet, ATM, and FDDI, as well as optional redundant Supervisor Engines and power supplies. In the wiring closet, switched 10/100 Ethernet, Token Ring, and ATM modules provide high-performance connectivity.

- Catalyst 5509

  The Catalyst 5509 has 9 slots and is ideally suited for both wiring closet and backbone applications. As a low cost wiring closet solution, the Catalyst 5509 supports high density, dedicated Token Ring or 10/100/1000 ethernet switching. The Catalyst 5509 can support high density switching with only a 15 Amp circuit requirement, allowing for easy installation in most wiring closet environments. The Catalyst 5509 also supports all of Cisco's advanced features for the wiring closet, such as automatic protocol broadcast filtering to conserve valuable bandwidth, intelligent multicast forwarding to handle multimedia traffic, and load balancing over redundant links.

  The Catalyst 5509 creates an industry-leading gigabit ethernet backbone solution to meet the requirements of today's demanding and fast-growing enterprise intranets by supporting up to 38 ports of Gigabit Ethernet and combined with Cisco's Gigabit EtherChannel technology, which enables multiple gigabit ethernet links to be treated as one logical link, for up to 8 Gbps (full duplex) of device-to-device throughput — the highest port density available today for the Catalyst 5500 series.

  The Catalyst 5509 chassis fits into a standard 19 in. (48.26 cm) rack, and all system components are accessible from the same side of the chassis. Only one power supply is required to run a fully configured system.

Key Features and Benefits

The Catalyst 5000 Family of multilayer switching systems includes the following standard features and options:

Note The Catalyst 5000 Family 2-, 5-, 9-, and 13-slot chassis do not include modules. Modules must be ordered separately.

- Supervisor engine:
  - Hardware-based switching backplane with tri-level priority
  - Bridge address table for 16,000 MAC addresses
  - Network management processor
  - Uplink ports
- Switching modules with choice of interface options
- AC or DC power supply
- Second AC or DC power supply option (Catalyst 5002 has dual AC or DC power supplies built in)
- Hot-swap feature for all power supply and module options
- Dual power cord availability
- Rack-mounting hardware and cable guide availability
- NetFlow switching, providing multilayer support for Layer 2 and Layer 3 switching

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- Route-switch module multiprotocol Layer 3 routing
- Media-independent switching backplane
  - Accommodates Ethernet, Token Ring, FDDI and ATM simultaneously in a single system
- Three levels of priority on the switching backplane, which prevents higher-layer protocols from timing out by giving the interface the highest priority on the backplane until the buffer content is reduced.
  - Accommodates technologies that use priorities, such as ATM and Token Ring
  - Enables user to define priorities on per-interface basis
  - Ensures server traffic priority
  - Accommodates bursty traffic

Figure 16-1: Catalyst 5000/5500 Rear View With AC Power Supplies

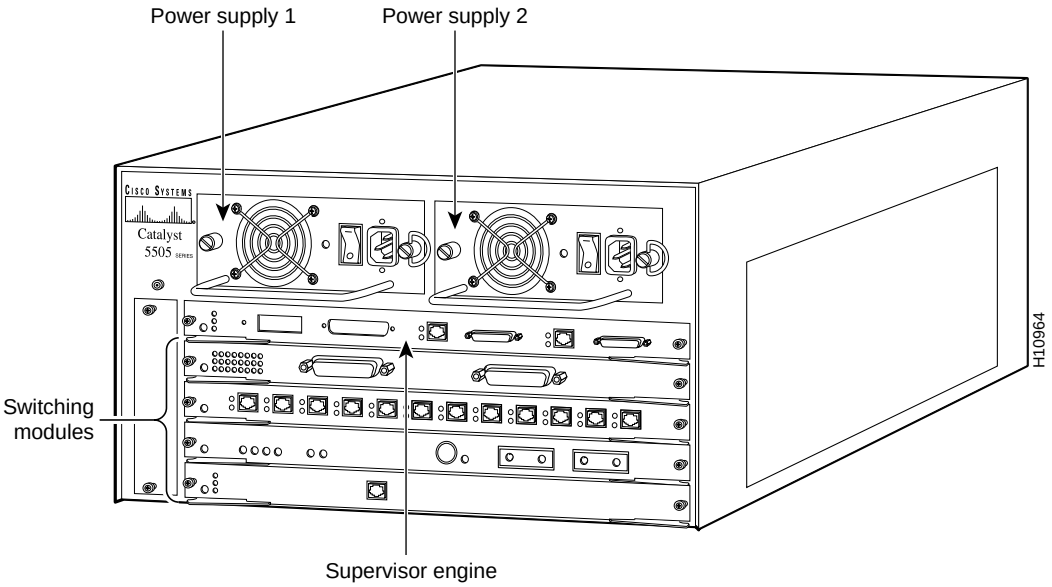
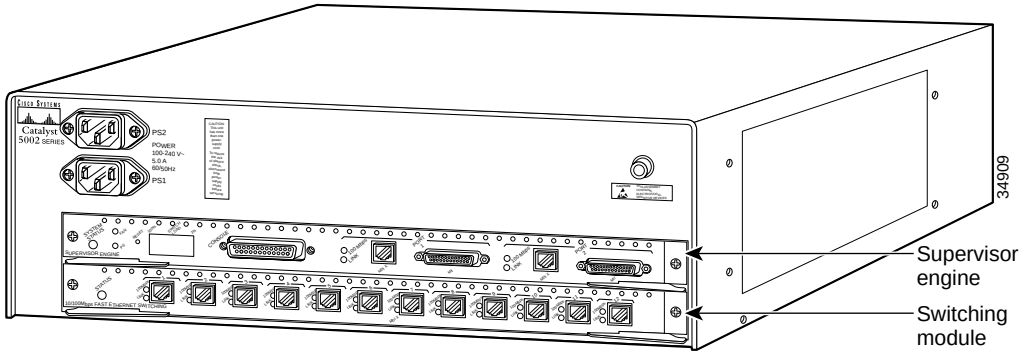


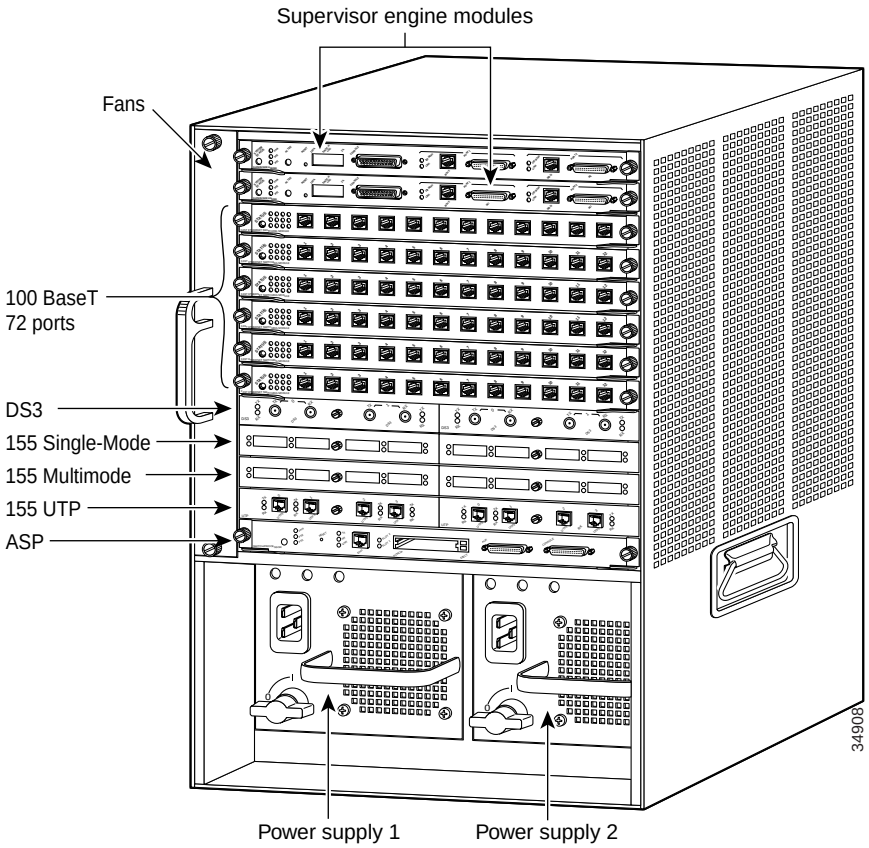
Figure 16-2: Catalyst 5002 Rear View



The following figure shows a rear view of the Catalyst 5500 13-slot chassis with two supervisor engine IIs installed in slots 1 and 2, and an ATM Switch Processor (ASP) module installed in slot 13 with four port adapter modules (PAMs) installed above it.

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Figure 16-3: Catalyst 5500 Rear View



Specifications

Hardware

Table 16-8: Catalyst 5000 Family Summary of Features

Characteristic	Description
Placement	Rack-mounted, front or back (standard 19 in. [48.26 cm] rack) Center-mount for 23-in. (58.42 cm), two-post racks are available for 5000 chassis
Switching backplane	1.2 Gbps (Catalyst 5000 and 5002):
Memory	4 MB Flash memory (all supervisor engine I models) 8 MB Flash memory (all supervisor engine II models, III F, II G, and III G) 8 MB Flash memory + PC Card Flash support (all supervisor engine III models) 4 or 20 MB DRAM (supervisor engine I) 16 or 32 MB DRAM (supervisor engine II) 32 MB DRAM (supervisor engine III, III F, II G, and III G) 128 KB NVRAM (supervisor engine I) 256 KB NVRAM (supervisor engine II) 512 KB NVRAM (supervisor III, III F, II G and III G)

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Characteristic	Description
Interfaces	Supervisor Engine I console: DB-25 (female) Supervisor Engine II console: DB-25 (female) Supervisor Engine III, III F console: RJ-45 (female) Supervisor Engine II G, III G console: RJ-45 (female) Supervisor Engine I 100BaseTX uplink: RJ-45 (female), 2 interfaces Supervisor Engine I 100BaseFX uplink: MMF SC or SMF SC, 2 interfaces Supervisor Engine II 100 Base TX uplink: RJ-45 (female), MII Supervisor Engine II 100 BaseFX uplink: MMF SC, SMF SC Supervisor Engine III 10/100Base TX uplink: RJ-45 (female), 2 interfaces Supervisor Engine III, II G10/100Base TX uplink: RJ-45 (female), 4 interfaces Supervisor Engine III 100BaseFX uplink: MMF SC or SMF SC, 2 interfaces Supervisor Engine III, II G 100BaseFX uplink: MMF MT-RJ, 4 interfaces Supervisor Engine III, II G 1000BaseSX uplink: MMF SC, 2 interfaces Supervisor Engine III, II G 1000BaseLX uplink: SMF SC, 2 interfaces Group Switched 10BaseT: RJ-21 (female), 48 interfaces
Interfaces (cont.)	Switched 10BaseT: RJ-21 (female), 48 or 24 interfaces Switched 10BaseT: RJ-45 (female), 24 interfaces Switched 10BaseFL: SC (female), 12 interfaces Switched 10BaseFL: MT-RJ (female), 24 interfaces Group Switched 100BaseTX: RJ-45 (female), 24 interfaces Switched 10/100BaseTX: RJ-45 (female), 24 or 12 interfaces Switched 10/100BaseTX:RJ-21 (female), 36 interfaces Switched 100BaseFX: MMF SC, 12 interfaces Switched 100BaseFX: MMF SC, SMF SC, 12 interfaces (6 MMF interfaces plus 6 SMF interfaces)
Interfaces (cont.)	Switched 100BaseFX:MT-RJ (female), 24 interfaces Fast Ether Channel 10/100BaseTX: RJ-45 (female), 24 or 12 interfaces Fast Ether Channel 100BaseFX: MMF SC, 12 interfaces Gigabit Ethernet: GBIC SX or LX, 3 interfaces Gigabit EtherChannel: GBIC SX or LX, 9 interfaces Switched Token Ring: RJ-45 copper UTP/STP (female), 16 ports Switched Token Ring: MMF 62.5-micron fiber, 16 ports ATM LANE/MPOA Uplink: OC-3 or OC-12: SMF SC, or MMF SC, 1 interface (dual-PHY) ATM LAN Emulation: UTP RJ-45, MMF SC, SMF SC, dual PHY CDDI: RJ-45 (female), 1 interface FDDI: MMF MIC, SMF ST, 1 interface Optical bypass switch connector: 6-pin mini-DIN
Port adapter modules (for Catalyst 5500)	ATM OC-3: SONET STS3c/SDH STM1, MMF SC or SMF SC, RJ-45, 4 ports ATM OC-12: SONET STS12c/STM4c, SMF SC, 1 port DS-3: 75-ohm coaxial BNC, 2 or 4 T3 DS3 ports E-3: 75-ohm coaxial BNC, 2 E3 ports T1/E1 ATM trunk: RJ-48, 4 ports, balanced or unbalanced T1/E1 circuit emulation: RJ-48, 4 ports, balanced or unbalanced 25 Mbps ATM: Telco cable 96-pin, 12 ATM25 ports

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Characteristic	Description
Duplex	10 Mbps Ethernet: Full or half duplex
	100 Mbps Fast Ethernet: Full or half duplex
	10/100 Mbps Fast Ethernet: Auto-negotiated speed and duplex
	1000 Mbps Gigabit Ethernet: Full or half duplex
	Token Ring copper: full or half duplex
	Token Ring fiber: half duplex
	FDDI: Half duplex
	ATM: Full duplex
	Group switched 10BaseT and 100BaseTX: Half duplex
Network Management	CiscoWorks for Switched Internetworks GUI management including the following:
	CiscoView
	VlanDirector
	Traffic Director
	User Tracking
	ATMDirector
	Cisco Discovery Protocol
	VLAN Trunk Protocol
	SNMP agent v1 (RFC 1155-1157)
	SNMP MIB II (RFC 1213)
	RMON (4 groups)
	RMON/RMON2 (all groups) with the optional Network Analysis Module (WS-X5380)
	Ethernet MIB (RFC 1643)
	Ethernet repeater MIB (RFC 1516)
	Interface Table (RFC 1573)
	Bridge MIB (RFC 1493)
	Token Ring MIB (RFC 1748)
Network Management (cont.)	Source-Route Bridge MIB (RFC 1525)
	Cisco Stack MIB Extensions (Token Ring group)
	RMON Token Ring Extensions (RFC 1513)
	Token Ring extensions for Statistics, History, Alarms, and Events groups
	Ring Station Order Group
	Ring Station Control Table
	FDDI MIB (RFC 1512)
	SMT 7.3 (RFC 1285)
	AToM MIB (RFC 1695)
	ILMI MIB
	Cisco Workgroup MIB
	LEC MIB (ATM Forum LANE v1.0)
	Cisco LECS, LES/BUS MIB
	Telnet, TFTP, BOOTP, LAN Emulation client, RFC 1577 Classical IP over ATM client: management access
	E-SPAN
	Text-based command-line interface based on familiar router interface
	Standard Cisco IOS security capabilities: passwords and TACACS
Standard protocols	Ethernet: IEEE 802.3, 10BaseT, and 10BaseFL
	Fast Ethernet: IEEE 802.3u, 100BaseTX, 100BaseFX
	Gigabit Ethernet: IEEE 802.3z
	Token Ring: IEEE 802.5r, IEEE 802.5j
	FDDI: ISO 9314-1 FDDI PHY standard; ISO 9314-3 FDDI PMD standard; CDDI TP-PMD standard; ANSI FDDI X3T9.5 SMT 7.3
	ATM Forum: 3.1 UNI Specification, Q.2931 signaling protocols, ATM Forum LANE v1.0, LUNI v.2.0, MPOA

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Characteristic	Description
Maximum cabling distances	10BaseT Ethernet: Category 5 UTP, 328 ft (100 m) 10BaseFL Ethernet: 62.5/125-micron fiber, 1.24 miles (2 km) 100BaseTX Fast Ethernet: Category 5 UTP, 328 ft (100 m) 10/100BaseTX Fast Ethernet: Category 5 UTP, 328 ft (100 m) 100BaseFX Fast Ethernet: 62.5/125 multimode fiber, 0.248 mile (400 m) half duplex, 1.24 miles (2 km) full duplex or 8.7/125 single-mode fiber, 6.2 miles (10 km), full or half duplex 1000BaseSX Gigabit Ethernet: 62.5/125 MMF, 0.171 miles (275 m); 50/125 MMF, 0.341 miles (550m) 1000Base LX Gigabit Ethernet: 62.5/125 MMF, 0.341 miles (550m); 50/125 MMF, 0.341 miles (550m); 9/125 or 10/125 SMF, 6.2 miles (10km) 1000Base ZX Gigabit Ethernet: 10/125 SMF, up to 62 miles (100km) with dispersion shifted single mode fiber 4 Mbps Token Ring 150-ohm STP: Types 1, 1a, 2, 2a, 2460 ft (750 m); Type 8, 1234 ft (376 m); Type 9, 1640 ft (500 m) 4 Mbps Token Ring 100-ohm UTP: Category 3, 820 ft (250 m); Category 4, 1148 ft (350 m); Category 5, 1148 ft (350 m) 16 Mbps Token Ring: 150-ohm STP Types 1, 1a, 2, 2a, 952 ft (290 m); Type 8, 480 ft (146 m); Type 9, 656 ft (200 m) 16 Mbps Token Ring 100-ohm UTP: Category 3, 328 ft (100 m); Category 4, 656 ft (200 m); Category 5, 656 ft (200 m) CDDI: Category 5 UTP, 328 ft (100 m) FDDI: 62.5/125 multimode fiber, 1.24 miles (2 km) or 8.7/125 single-mode fiber, 6.2 miles (10 km) ATM LAN emulation module UTP: Category 5 UTP, 328 ft (100 m) ATM Uplink module MMF: 62.5/125-micron fiber, 1.24 miles (2 km) ATM Uplink module SMF: 8.7/125-micron fiber, 6.2 miles (10 km)
Fiber-optical specifications	Multimode specifications for modules WS-X5006, WS-X5011,WS-X5236-FX-MT, WS-X5201R, WS-X5114=, WS-X5101, WS-X5158, WS-X5167,WS-X5031, and WS-X5506: • Transmitter output power: -19 to -14 dBm • Receiver sensitivity: -32.5 to -14 dBm • Wavelength: 850 to 1360 nm • Optical source: LED • Maximum span: 1.24 miles (2 km) Single-mode specifications for modules WS-X5237-FX-MT, WS-X5005, WS-X5157, WS-X5168, WS-X5114=, WS-X5154, and WS-X5505: • Transmitter output power: -14 to -8 dBm • Receiver sensitivity: -32.5 to -8 dBm • Wavelength: 1261 to 1360 nm • Optical source: Laser • Maximum span: 6.2 miles (10 km) Single-mode specifications for module WS-X5104: • Transmitter output power: -4.0 to-7.0 dBm • Receiver sensitivity: -33 to -14 dBm • Optical source: Laser • Maximum span: 18.63 miles (30 km)

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Characteristic	Description
Fiber optical specifications for ASP port adapter modules and ATM OC-12 Uplink Module	OC-12 multimode fiber PAM or OC-12 LANE/MPOA Uplink Module (WS-X5161): • Transmitter output power: -20 to -14 dBm • Receiver sensitivity: -26 to -14 dBm • Wavelength: 1270 to 1380 nm • Optical source: LED • Maximum span: 500 m
	OC-12 single-mode fiber LR PAM • Transmitter output power: -3 to 2 dBm • Receiver sensitivity: -28 to -8 dBm • Wavelength: 1280 to 1335 nm • Optical source: Laser • Maximum span: 40 km (long reach)
	OC-3 multimode fiber PAM • Transmitter output power: -20 to -14 dBm • Receiver sensitivity: -30 to -14 dBm • Wavelength: 1270 to 1380 nm • Optical source: LED • Maximum span: 2 km
	OC-3 single-mode fiber IR PAM • Transmitter output power: -15 to -8 dBm • Receiver sensitivity: -28 to -8 dBm • Wavelength: 1260 to 1360 nm • Optical source: Laser • Maximum span: 15 km (intermediate reach)
	OC-3 mixed-mode fiber IR+ PAM (For IR+ only - For MM specifications see OC-3 MM PAM above) • Transmitter output power: -8 to -3 dBm • Receiver sensitivity: -32 to -3 dBm • Wavelength • 1270 to 1380 nm • Optical source: Laser • Maximum span: 30 km (intermediate reach plus)
	OC-12 single-mode fiber IR PAM or ATM OC-12 LANE/MPOA Uplink Module (WS-X5162) • Transmitter output power: -15 to -8 dBm • Receiver sensitivity: -28 to -8 dBm • Wavelength: 1260 to 1360 nm • Optical source: Laser • Maximum span: 15 km (intermediate reach)
LEDs	Status LED on each module 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 MII = media-independent interface FE = Fast Ethernet MMF = multimode fiber SMF = single-mode fiber dBm = decibels per milliwatt

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Table 16-9: Catalyst 5000 Family Environmental Specifications

Characteristic	Specification
Temperature	Operating: 32 to 104˚F (0 to 40˚C) Storage: –40 to 167˚F (–40 to 75˚C)
Humidity	10 to 90%, noncondensing
MTBF	7 years for system configuration
Safety certifications	UL 1950 EN 60950 CSA-C22.2 No. 950 IEC 950 TS 001 AS/NZS 3260
Electromagnetic emissions certifications	Over UTP: FCC Class A (47 CFR, Part 15) ICES -003 Class A EN 55022 Class A CISPR22 Class A AS/NZS 3548 Class A VCCI Class A Over FTP: EN 55022 Class B CISPR22 Class B AS/NZS 3548 Class B VCCI Class B
AC power requirements	Catalyst 5500 8.0 Amps at 230 VAC, 50 Hz 16 Amps at 115 VAC, 60 Hz Power consumption: 1100W kVA = 1.84
DC power requirements	Catalyst 5500 –40.5 VDC to –72 VDC continuous Typical range (U.S. and Canada) –48 VDC (nominal) –54 VDC (high) –42 VDC (low) Typical range (international) –60 VDC (nominal) –72 VDC (high) –52 VDC (low)
Dimensions (H x W x D)	Catalyst 5500 25.25 x 17.3 x 18.25 in. (64.14 x 43.9 x 46.36 cm)
Weight	Catalyst 5500 Minimum: 70 lb (31.7 kg) Maximum: 160 lb (72.5 kg)

Software

The following section describes software feature information for the Catalyst 5000 Series.

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Standard Feature Set:

Bandwidth Management

- Protocol Filtering
  - — Requires a NetFlow feature card
- Fast EtherChannel
- IGMP Snooping
  - — Enables the Catalyst 5000 to act directly upon IGMPv2 join and leave messages for fast and efficient pruning of multicast traffic
  - — Requires a NetFlow feature card High-performance standards-based multicast traffic pruning.
- CGMP
- CGMP Fast Leave Processing
- Multiple Spanning Trees

Network Resiliency

- Redundant Supervisors
- Spanning Tree Protocol (STP)
- BackboneFast Convergence
- Portfast
- Active Uplinks

VLANs

- IEEE 802.1Q VLAN Trunking
- Dynamic VLANs, MAC-address based
- Policy Server, VMPS I
- ISL Trunking Protocol
- VTP, VTP2
- VTP Pruning

Embedded Manageability

- IP Trace Route
- Switch TopN Ports Report
- CDP
- SNMP, MIB II Agent
- RMON Agent
- Switch Port Analyzer
- SPAN and E-SPAN
- Traps
- Syslog
- DISL

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- Multiple Default IP Gateways
- Configuration Change Message and SNMP Trap
- RMON2 Agent/Probe Configuration Group
- SNMP Trap Enhancements
- New Spanning Tree Topology Change Trap (only sent from current spanning tree root switch)
- SNMP MIB Additions and Enhancements
  - Cisco-Switch-Engine-MIB
  - Cisco-Memory-Pool-MIB
  - Entity-MIB

Security Services

- Port Security
- RADIUS Authentication
- TACACS+ support
- IP permit List

Enhanced Feature Set (Release 3.1 and higher):

- Mini-RMON for Fast EtherChannel Technology
  - Full RMON and RMON2 is available via the Network Analysis Module (WS-X5380)
- Mini-RMON Agent for Token Ring Ports

  Supports the following RMON groups:
  - MAC-Layer statistics
  - Promiscuous statistics
  - MAC-Layer history
  - Promiscuous history
  - Alarms group
  - Events group
- Ring station order
- RMON Alarm Thresholds on any MIB Object

Enhanced Feature Set (Release 4.1 and higher):

- Quality of Service (QoS)
  - Requires NetFlow Feature Card II and Release 5.1 or higher
- Multilayer Switching (MLS)
  - Requires NFFC (IP only) or NFFC II (IP, IPX, IP multicast)

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Ordering Information

Configuration Worksheets

For configuration and wiring layout information for the Catalyst 5000 Family switches, access Cisco Online Connection (CCO) at the following URL:

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http://www.cisco.com/warp/public/cc/cisco/mkt/switch/cat/c5000/index.shtml

Product and Part Numbers

Part Numbers for the Catalyst 5000 Family Chassis

Part Description	Part Number
Catalyst 5000	
Catalyst 5000 - Base Configuration	
Catalyst 5000 Chassis	WS-C5000
Catalyst 5000 Chassis Spare	WS-C5000=
Catalyst 5000 5 Slot Chassis w/One Power Supply	WS-C5007=
Catalyst 5000/5505 AC Power Supply	WS-C5008B
Catalyst 5000/5505 AC Power Supply (spare)	WS-C5008B=
Catalyst 5000/5505 Redundant AC Power Supply	WS-C5008B/2
Catalyst 5000/5505 single DC Power Supply	WS-C5068B
Catalyst 5000/5505 single DC Power Supply (Spare)	WS-C5068B=
Catalyst 5000/5505 single DC Power Supply (Redundant)	WS-C5068B/2
Catalyst 5002 - Base Configuration	
Catalyst 5002 Chassis with Dual Power Supply	WS-C5002
Catalyst 5002 2 Slot Chassis w/Dual Power Supplies (spare)	WS-C5002=
Catalyst 5002 Chassis (with built-in dual DC Power Supplies)	WS-C5002-DC
Catalyst 5002 Chassis, w/ dual DC Power Supplies (spare)	WS-C5002-DC=
Catalyst 5500 - Base Configuration	
Catalyst 5500 Chassis	WS-C5500
Catalyst 5500 Spare Chassis (One Power Supply Required)	WS-C5500=
Catalyst 5500 Chassis with Single AC Power Supply (spare)	WS-C5507=
Catalyst 5500 AC Power Supply	WS-C5508
Catalyst 5500 AC Power Supply (spare)	WS-C5508=
Catalyst 5500 Redundant AC Power Supply	WS-C5508/2
Catalyst 5500 DC Power Supply	WS-C5568
Catalyst 5500 DC Power Supply (spare)	WS-C5568=
Catalyst 5500 Redundant DC Power Supply	WS-C5568/2
Catalyst 5505 - Base Configuration	
Catalyst 5505 Chassis	WS-C5505

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Part Description	Part Number
Catalyst 5505 Chassis with Single AC Power Supply (spare)	WS-C5505-CHAC=
Catalyst 5505 Chassis With Single DC Power Supply	WS-C5505-CHDC=
Catalyst 5000/5505 AC Power Supply	WS-C5008B
Catalyst 5000/5505 AC Power Supply (spare)	WS-C5008B=
Catalyst 5000/5505 Redundant AC Power Supply	WS-C5008B/2
Catalyst 5000/5505 single DC Power Supply	WS-C5068B
Catalyst 5000/5505 single DC Power Supply (Spare)	WS-C5068B=
Catalyst 5000/5505 single DC Power Supply (Redundant)	WS-C5068B/2
Catalyst 5509 - Base Configuration	
Catalyst 5509 Chassis	WS-C5509
Catalyst 5509 Spare Chassis with one AC power supply	WS-C5509-CHAC=
Catalyst 5509 Spare Chassis with one DC power supply	WS-C5509-CHDC=
Catalyst 5509 AC Power Supply	WS-C5518
Catalyst 5509 AC Power Supply (spare)	WS-C5518=
Catalyst 5509 second AC Power Supply	WS-C5518/2
Catalyst 5509 DC Power Supply	WS-C5598
Catalyst 5509 DC Power Supply (spare)	WS-C5598=
Catalyst 5509 second DC Power Supply	WS-C5598/2
Catalyst 5000 Supervisor Modules	
Catalyst 5002/5000/5505/5500 Supervisor II (100BaseFX, SMF)	WS-X5505
Catalyst 5002/5000/5505/5500 Sup II (100BaseFX, SMF)(spare)	WS-X5505=
Catalyst 5002/5000/5505/5500 Supervisor II (100BaseFX, MMF)	WS-X5506
Catalyst 5002/5000/5505/5500 Sup II (100BaseFX, MMF)(spare)	WS-X5506=
Catalyst 5002/5000/5505/5500 Supervisor II (100BaseTX, MII)	WS-X5509
Catalyst 5002/5000/5505/5500 Sup II (100BaseTX, MII)(spare)	WS-X5509=
Catalyst 5002/5000/5505/5500 Supervisor III Base Mod w/ NFFC	WS-X5530-E2
Catalyst 5002/5000/5505/5500 Sup III Base Mod w/ NFFC(spare)	WS-X5530-E2=
Catalyst 5000 Family Supervisor III w/ NFFC-A	WS-X5530-E2A
Catalyst 5000 Family Supervisor III w/ NFFC-A	WS-X5530-E2A=
Catalyst 5500/5000 Supervisor Engine III Module w/NFFC II	WS-X5530-E3

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Part Description	Part Number
Catalyst 5500/5000 Sup Engine III Module w/NFFC II spare	WS-X5530-E3=
Catalyst 5000 Family Supervisor III w/ NFFC II-A	WS-X5530-E3A
Catalyst 5000 Family Supervisor III w/ NFFC II-A	WS-X5530-E3A=
Catalyst 5000 Supervisor III NetFlow Feature Card (spare)	WS-F5521=
Catalyst 5000 Family Supervisor III NFFC-A (spare)	WS-F5521A=
NetFlow Feature Card II (Upgrade)	WS-F5531=
Catalyst 5000 Family Supervisor III NFFC II-A (spare)	WS-F5531A=
Route Switch Feature Card for WS-X5540 and WS-X5550	WS-F5541
Route Switch Feature Card for WS-X5540 and WS-X5550	WS-F5541=
Catalyst 5500/5000 Supervisor IIG	WS-X5540
Catalyst 5500/5000 Supervisor IIG	WS-X5540=
Catalyst 5500/5000 Supervisor IIIG	WS-X5550
Catalyst 5500/5000 Supervisor IIIG	WS-X5550=
Catalyst 5000 Gigabit EtherCannel Module Flash Image	
C5K Gigabit Etherchannel Module Flash Image Rel.4.5(6)	SFC5K-GEM-4.5.6
C5K Gigabit EtherChannel Module Flash Image, Rel. 4.5(5)	SFC5K-GEM-4.5.5
Catalyst 5000 Supervisor III Uplink Module Options	
Dual Port 10/100BaseTX Uplink Module for Supervisor III	WS-U5531-FETX
Dual Port 10/100BaseTX Uplink Module for Sup III (spare)	WS-U5531-FETX=
Dual Port 100BaseTX Uplink Module For Bundled SUP3 Engine	WS-U5531-FETX-BU
Dual Port 100BaseFX MMF Uplink Module for Supervisor III	WS-U5533-FEFX-MMF
Dual Port 100BaseFX MMF Uplink Module for Sup III (spare)	WS-U5533-FEFX-MMF=
Dual Port 1000BaseSX Uplink Module for Supervisor III	WS-U5534-GESX
Dual Port 1000BaseSX Uplink Module for Sup III (spare)	WS-U5534-GESX=
Dual Port 100BaseFX SMF Uplink Module for Supervisor III	WS-U5535-FEFX-SMF
Dual Port 100BaseFX SMF Uplink Module for Sup III (spare)	WS-U5535-FEFX-SMF=
Dual Port 1000BaseLX/LH SMF Uplink Module for Supervisor III	WS-U5536-GELX
Dual Port 1000Base-LX SMF Uplink Mod For Supvr Engine III	WS-U5536-GELX=

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Part Description	Part Number
Four Port 100BaseTX Uplink Module for Supervisor Engine III	WS-U5537-FETX
Four port 100BaseTX Uplink module for Supervisor-3 (spare)	WS-U5537-FETX=
4-Port 100BaseFX MMF Uplink Module for Supervisor Engine III	WS-U5538-FEFX-MMF
Four port 100BaseFX MMF Uplink for Supervisor III (spare)	WS-U5538-FEFX-MMF=
Catalyst 5000 Supervisor III Flash Memory Options	
Supervisor III PCMCIA Flash Memory Card, 8MB (spare)	MEM-S3-FLC8M=
Supervisor III PCMCIA Flash Memory Card, 16MB (spare)	MEM-S3-FLC16M=
Supervisor III PCMCIA Flash Memory Card, 20MB (spare)	MEM-S3-FLC20M=
Catalyst 5000 Supervisor Flash Image	
Catalyst 5K Supervisor 1&2 Flash Image, Release 4.5(5)	SFC5K-SUP-4.5.5
Catalyst 5K Supervisor 1&2 Flash Image, Release 4.5(5)	SWC5K-SUP-4.5.5=
Catalyst 5K Supervisor 3 Flash Image, Release 4.5(5)	SFC5K-SUP3-4.5.5
Catalyst 5K Supervisor 3 Flash Image, Release 4.5(5)	SWC5K-SUP3-4.5.5=
Modules for the Catalyst 5000	
Catalyst 5000 Ethernet Switching Module (10BaseFL, 12 port)	WS-X5011
C5000 Ethernet Switching Module (10BaseFL, 12 port) (spare)	WS-X5011=
C5000 48 Port 10BaseT Desktop Switching Module (Telco)	WS-X5012
C5000 48 Port 10BaseT Desktop Switching Mod (Telco)(spare)	WS-X5012=
C5000 Switched 10BaseT 3 Pack of WS-X5012 (Telco, 3x48port)	WS-X5012-3PACK
Switched 10BaseT 3 Pack of WS-X5012 (Telco,3x48 port)(spare)	WS-X5012-3PACK=
48 Port 10BT Desktop Ethernet Switching Module (telco)	WS-X5012A
48 Port 10BT Desktop Ethernet Switching Module (telco,spare)	WS-X5012A=
Three Pack of WS-X5012A, Telco (3x48 port)	WS-X5012A-3PACK
Three Pack of WS-X5012A, Telco (3x48 port)	WS-X5012A-3PACK=
C5000 Ethernet Switching Module (10BaseT, RJ-45, 24 port)	WS-X5013
C5000 10BaseT Switching Module (RJ-45, 24 port) (spare)	WS-X5013=
48 Port 10BT Desktop Ethernet Switching Module (RJ-45)	WS-X5014

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Part Description	Part Number
48 Port 10BT Desktop Ethernet Switching Module (RJ-45,spare)	WS-X5014=
C5000 Switched 10BT 3 Pack of WS-X5014 (RJ-45, 3x48 port)	WS-X5014-3PACK
C5000 Switched 10BT 3 Pack of WS-X5014 (RJ-45, 3x48 port)	WS-X5014-3PACK=
24-port 10FL Desktop Switching Module (MT-RJ)	WS-X5015-MT
24-port 10FL Desktop Switching Module (MT-RJ)	WS-X5015-MT=
C5000 Group Ethernet Switching Module (10BaseT, 48 port)	WS-X5020
C5000 Group Ethernet Switching Mod (10BaseT,48 port) (spare)	WS-X5020=
Catalyst 5000 Copper Token Ring Switching Module (16 port)	WS-X5030
Catayst 5000 Family 16 Port Copper Token Ring Switch Module	WS-X5030=
Catalyst 5000 Fiber Token Ring Switching Module (16 port)	WS-X5031
Catalyst 5000 Family 16 Port Fiber Token Ring Switch Module	WS-X5031=
Catalyst 5000 FDDI Switching Module (MMF, MIC)	WS-X5101
Catalyst 5000 FDDI Switching Module (MMF, MIC) (spare)	WS-X5101=
Catalyst 5000 CDDI Switching Module (UTP, RJ-45)	WS-X5103
Catalyst 5000 CDDI Switching Module (UTP, RJ-45) (spare)	WS-X5103=
Catalyst 5000 FDDI Switching Module (SMF, ST)	WS-X5104
Catalyst 5000 FDDI Switching Module (SMF, ST) (spare)	WS-X5104=
C5000 100BaseFX Switching Module (6 MMF/6 SMF,12 port)	WS-X5114
C5000 100BaseFX Switching Mod (6 MMF/6 SMF,12 port)(spare)	WS-X5114=
Catalyst 5000 ATM OC-3 LANE Module Dual PHY (UTP, RJ-45)	WS-X5156
Catalyst 5000 ATM OC-3 LANE Mod Dual PHY (UTP, RJ-45)(spare)	WS-X5156=
Catalyst 5000 ATM OC-3 LANE Module Dual PHY (SMF, SC)	WS-X5157
Catalyst 5000 ATM OC-3 LANE Module Dual PHY (SMF, SC)(spare)	WS-X5157=
Catalyst 5000 ATM OC-3 LANE Module Dual PHY (MMF, SC)	WS-X5158
Catalyst 5000 ATM OC-3 LANE Module Dual PHY (MMF, SC)(spare)	WS-X5158=
C5000 ATM OC-12 LANE/MPOA Module Dual PHY (MMF, SC)	WS-X5161
C5000 ATM OC-12 LANE/MPOA Module Dual PHY (MMF, SC) (spare)	WS-X5161=

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Part Description	Part Number
C5000 ATM OC-12 LANE/MPOA Module Dual PHY (SMF, SC)	WS-X5162
C5000 ATM OC-12 LANE/MPOA Module Dual PHY (SMF, SC) (spare)	WS-X5162=
Catalyst 5500 ATM Fabric Integration Module	WS-X5165
Catalyst 5500 ATM Fabric Integration Module (spare)	WS-X5165=
Catalyst 5000 ATM DS-3 Module Dual PHY (BNC)	WS-X5166
Catalyst 5000 ATM DS-3 Module Dual PHY (BNC) (spare)	WS-X5166=
C5K ATM OC-3 LANE/MPOA module dual PHY (multimode, SC)	WS-X5167
C5K ATM OC-3 LANE/MPOA module dual PHY (multimode,SC) spare	WS-X5167=
C5K ATM OC-3 LANE/MPOA module dual PHY (singlmode,SC)	WS-X5168
C5K ATM OC-3 LANE/MPOA module dual PHY (singlmode,SC) spare	WS-X5168=
C5000 Fast EtherChannel Switching (100BaseFX,MMF,SC,12 port)	WS-X5201
Fast EtherChannel Switching (100FX,MMF,SC,12 port)(spare)	WS-X5201=
100BaseFX Backbone Switching (FEC, 802.1Q/ISL, SC, 12 port)	WS-X5201R
100FX Backbone Switching (FEC,802.1Q/ ISL,SC,12 port)(spare)	WS-X5201R=
C5000 Fast EtherChannel Switching (10/ 100TX,RJ-45,12 port)	WS-X5203
Fast EtherChannel Switching (10/ 100TX,RJ-45,12 port)(spare)	WS-X5203=
C5000 Fast Ethernet Switching Module (10/100BaseTX, 12 port)	WS-X5213A
C5000 Fast Ethernet Switching (10/ 100BaseTX,12 port)(spare)	WS-X5213A=
C5000 Group Switched Fast Ethernet (100TX, RJ-45, 24 port)	WS-X5223
Group Switched Fast Ethernet (100TX,RJ-45,24 port)(spare)	WS-X5223=
Gr. Sw. 100BaseTX Eth 3 Pack of WS-X5223, 3x24-ports, RJ-45	WS-X5223-3PACK
Gr. Sw. 100BaseTX Eth 3 Pack of WS-X5223, 3x24-ports, RJ-45	WS-X5223-3PACK=
C5000 24 Port Desktop 10/100 Switching Module (RJ-45)	WS-X5224
C5000 24 Port Desktop 10/100 Switching Module (RJ-45)(spare)	WS-X5224=
Catalyst 5000 10/100 3 Pack of WS-X5224 (RJ-45, 3x24 port)	WS-X5224-3PACK
C5000 10/100 3 Pack of WS-X5224 (RJ-45,3x24 port)(spare)	WS-X5224-3PACK=
24 Port 10/100TX Backbone Switching (FEC, 802.1Q/ISL, RJ-45)	WS-X5225R

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Part Description	Part Number
24 Port 10/100TX Backbone Sw. (FEC, 802.1Q/ISL,RJ-45)(spare)	WS-X5225R=
24-port 10/100TX Switch Module (FEC,WRED,802.1Q/ISL,RJ-45)	WS-X5234-RJ45
24-port 10/100TX Switch Module (FEC,WRED,802.1Q/ISL,RJ-45)	WS-X5234-RJ45=
24-port 10/100TX (FEC,WRED,802.1Q/ISL,RJ-45) 3PACK	WS-X5234-RJ-3PACK
24-port 10/100TX (FEC,WRED,802.1Q/ISL,RJ-45) 3PACK	WS-X5234-RJ-3PACK=
24-port 100FX Switch Module (FEC,WRED,802.1Q/ISL,MT-RJ)	WS-X5236-FX-MT
24-port 100FX Switch Module (FEC,WRED,802.1Q/ISL,MT-RJ)	WS-X5236-FX-MT=
24-port 100FX SMF MT-RJ switch mod (FEC, 802.1Q/ISL, WRED)	WS-X5237-FX-MT
24-port 100FX SMF MT-RJ switch mod (FEC, 802.1Q/ISL, WRED)	WS-X5237-FX-MT=
36-port 10/100TX Switch Module (FEC,WRED,802.1Q/ISL,Telco)	WS-X5239-RJ21
36-port 10/100TX Switch Module (FEC,WRED,802.1Q/ISL,Telco)	WS-X5239-RJ21=
Catalyst 5500/8500 Fabric Integration Module	WS-X5305
Catalyst 5500/8500 Fabric Integration Module (spare)	WS-X5305=
C5000/5500 Network Analysis Module - 32MB	WS-X5380
C5000/5500 Network Analysis Module - 32MB (spare)	WS-X5380=
Catalyst 5000/5500 Network Analysis Module - 128MB DRAM	WS-X5381
Catalyst 5000/5500 Network Analysis Module - 128MB DRAM	WS-X5381=
C5000 Gigabit Ethernet Switching Module w/o GBICs (3 port)	WS-X5403
C5000 Gigabit Ethernet Sw. Module w/o GBIC (3 port)(spare)	WS-X5403=
C5000 9 Port Gigabit Ethernet Switching Module w/o GBICs	WS-X5410
Catalyst 5000 9 Port Gigabit Etherchannel Switching Module	WS-X5410=
1000BASE-SX “Short Wavelength” GBIC (Multimode only)	WS-G5484
1000BASE-SX	WS-G5484=
1000BASE-LX/LH “long haul” GBIC (singlemode or multimode)	WS-G5486
1000BASE-LX/LH	WS-G5486=
1000Base-ZX extended reach GBIC(singlemode)	WS-G5487
1000Base-ZX extended reach GBIC(singlemode)	WS-G5487=

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Part Description	Part Number
Cables for the Catalyst 5000 TR Switch Module	
1 Meter Cable WS-X5031 Token Ring Fiber Cat5000 Module	WS-CAB01ST=
ST Cable for Catalyst 5000 Fiber Token Ring Switch Module,3m	WS-CAB03ST
3 Meter Cable WS-X5031 Token Rng Fiber Cat5000 Module	WS-CAB03ST=
ST Cable for Catalyst 5000 Fiber Token Ring Switch Module,8m	WS-CAB08ST
8 Meter ST Cable For Cat 5000 Fiber TR Switch Module	WS-CAB08ST=
Catalyst 5000 Memory Options	
Catalyst 5000 Release 2.2 16MB Custom Memory Upgrade (spare)	MEM-C5K-16M-CUSTOM=
Catalyst 5000 Release 2.2 16MB Memory Upgrade (spare)	MEM-C5K-16M=
Supervisor II 32MB DRAM uprgrade kit (spare)	MEM-C5K-SUP2-UPGD
C5000/5500 Network Analysis Module 128 MB DRAM upgrade	MEM-C5K-NAM-UPGD=
Catalyst 5000 Cables	
Category 3 Telco Cable Assy.M90 to F90,5	CAB-3-M90F90-5=
Category 3 Telco Cable Assy. M90 to F90, 10	CAB-3-M90F90-10=
Category 3 Telco Cable Assy. M180 to F90, 5	CAB-3-M180F90-5=
Category 3 Telco Cable Assy. M180 to F90, 10	CAB-3-M180F90-10=
Category 3 Telco Cable Adapter (110 Degree)	CAB-3-ADPTR-TEL=
Supervisor III Console Cable Kit	CAB-S3-CONSOLE
Gigabit Ethernet Multimode Conditioning Cable	CAB-GELX-625=
Category 5 Telco (RJ-21X) cable, Male-120 to Male-120, 5 ft	CAB-5-M120M120-5=
Category 5 Telco (RJ-21X) cable, Male-120 to Male-120, 10 ft	CAB-5-M120M120-10=
Category 5 Telco (RJ-21X) cable, Male-180 to Male-120, 5 ft	CAB-5-M180M120-5=
Category 5 Telco (RJ-21X) cable, Male-180 to Male-120, 10 ft	CAB-5-M180M120-10=
Category 5 Telco (RJ-21X) to (12)RJ-45 cable, 5 ft	CAB-5-M120HYD-5=
Category 5 Telco (RJ-21X) to (12)RJ-45 cable, 10 ft	CAB-5-M120HYD-10=
AC Power Cord North America, 15A	CAB-7KAC-15
AC Power Cord North America, 15A - spare	CAB-7KAC-15=
Catalyst 5000 Route Switch Module (RSM)	
Catalyst 5000 Route Switch Module	WS-X5302

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Part Description	Part Number
Catalyst 5000 Route Switch Module (spare)	WS-X5302=
Catalyst 5000 Versatile Interface Processor - Model 2-15	WS-X5303-15=
Catalyst 5000 Versatile Interface Processor - Model 2-40	WS-X5303-40=
Catalyst 5000 Route Switch Module w/ VIP2 Model 15	WS-X5304-15
Catalyst 5000 Route Switch Module w/ VIP2 Model 15 (spare)	WS-X5304-15=
RSM With Model 40 VIP II Module	WS-X5304-40
Catalyst 5000 Route Switch Module w/ VIP2 Model 40 (spare)	WS-X5304-40=
Catalyst 5000 Route Switch Module Cables	
RSM Console Cable (spare)	CAB-RSM2CON=
RSM Auxilliary Cable (spare)	CAB-RSM2AUX=
Catalyst 5000 Route Switch Module Memory Options	
Catalyst 5000 RSM Flash Credit Card: 16 MB (default)	MEM-RSM-FLC16M
Catalyst 5000 RSM Flash Credit Card: 16 MB (spare)	MEM-RSM-FLC16M=
Catalyst 5000 RSM Flash Credit Card: 20MB (option)	MEM-RSM-FLC20M
Catalyst 5000 RSM Flash Credit Card: 20MB (spare)	MEM-RSM-FLC20M=
Catalyst 5000 RSM 32 MB DRAM (default)	MEM-RSM-32M
Catalyst 5000 RSM 64 MB DRAM (option)	MEM-RSM-64M
Catalyst 5000 RSM 64 MB DRAM (spare)	MEM-RSM-64M=
Catalyst 5000 RSM 128 MB DRAM (option)	MEM-RSM-128M
Catalyst 5000 RSM 128 MB DRAM (spare)	MEM-RSM-128M=
Catalyst 5000 Route Switch Module Software Options	
Cisco IOS Cat RSM IP/IPX/AT/DecNet Feature Set	SFC5B-11.2.18P
Cisco IOS Catalyst 5000 RSM Enterprise w/ VIP Feature Set	SFC5AV-11.2.18P
Cisco IOS Catalyst 5000 RSM IP/IPX/AT/ DEC w/ VIP Feature Set	SFC5BV-11.2.18P
Cisco IOS Catalyst 5000 RSM IP w/ VIP Feature Set	SFC5CV-11.2.18P
Cisco IOS RSM Ent / APPN w/ VIP Feature Set	SFC5ANV-11.2.18P
Cisco IOS Cat RSM Dtop / IBM /APPN w/ VIP Feature Set	SFC5BNV-11.2.18P
Cisco IOS Cat RSM IP/IPX/AT/DecNet Feature Set	SWC5B-11.2.18P=

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Part Description	Part Number
Cisco IOS Catalyst 5000 RSM Enterprise w/ VIP Feature Set	SWC5AV-11.2.18P=
Cisco IOS Catalyst 5000 RSM IP/IPX/AT/ DEC w/ VIP Feature Set	SWC5BV-11.2.18P=
Cisco IOS Catalyst 5000 RSM IP w/ VIP Feature Set	SWC5CV-11.2.18P=
Cisco IOS RSM Ent / APPN w/ VIP Feature Set	SWC5ANV-11.2.18P=
Cisco IOS Cat RSM Dtop / IBM /APPN w/ VIP Feature Set	SWC5BNV-11.2.18P=
Cisco IOS Catalyst 5000 Series IP/IPX/AT/ DEC/VIP	SFC5BV-11.3.8W
Cisco Catalyst 5000 RSM IOS ENTERPRISE	SC5A-12.0.5W
Cisco Catalyst 5000 RSM IOS ENTERPRISE	SC5A-12.0.5W=
Cisco Catalyst 5000 RSM IOS DESKTOP/ IBM	SC5BS-12.0.5W=
Cisco Catalyst 5000 RSM IOS IP	SC5C-12.0.5W=
Cisco Catalyst 5000 Series IOS ENTERPRISE/SNASwitch	SC5AR1-12.0.5XN=
Cisco Catalyst 5000 Series IOS ENTERPRISE/SNASwitch IPSEC 3D	SC5AR1K2-12.0.5XN=
Cisco Catalyst 5000 Series IOS ENTERPRISE/SNASwitch IPSEC 56	SC5AR1L-12.0.5XN=
Cisco Catalyst 5000 Series IOS ENTERPRISE	SC5A-12.0.7=
Cisco Catalyst 5000 Series IOS ENTERPRISE 40	SC5AK-12.0.7=
Cisco Catalyst 5000 Series IOS ENTERPRISE IPSEC 56	SC5AL-12.0.7=
Cisco Catalyst 5000 Series IOS ENTERPRISE/APPN	SC5AN-12.0.7=
Cisco Catalyst 5000 Series IOS ENTERPRISE/APPN 40	SC5ANK-12.0.7=
Cisco Catalyst 5000 Series IOS ENTERPRISE/APPN IPSEC 56	SC5ANL-12.0.7=
Cisco Catalyst 5000 Series IOS DESKTOP/IBM	SC5BS-12.0.7=
Cisco Catalyst 5000 Series IOS IP/IPX/AT/ DEC 40	SC5BSK-12.0.7=
Cisco Catalyst 5000 Series IOS DESKTOP/IBM IPSEC 56	SC5BSL-12.0.7=
Cisco Catalyst 5000 Series IOS IP	SC5C-12.0.7=
Cisco Catalyst 5000 Series IOS IP 40	SC5CK-12.0.7=
Cisco Catalyst 5000 Series IOS IP IPSEC 56	SC5CL-12.0.7=
Cisco Catalyst 5000 Series IOS ENTERPRISE	SC5A-12.0.7T=
Cisco Catalyst 5000 Series IOS ENTERPRISE 40	SC5AK-12.0.7T=
Cisco Catalyst 5000 Series IOS ENTERPRISE IPSEC 3DES	SC5AK2-12.0.7T=

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Part Description	Part Number
Cisco Catalyst 5000 Series IOS ENTERPRISE IPSEC 56	SC5AL-12.0.7T=
Cisco Catalyst 5000 Series IOS ENTERPRISE/SNASW	SC5AR1-12.0.7T=
Cisco Catalyst 5000 Series IOS ENTERPRISE/SNASW IPSEC 3DES	SC5AR1K2-12.0.7T=
Cisco Catalyst 5000 Series IOS ENTERPRISE/SNASW IPSEC 56	SC5AR1L-12.0.7T=
Cisco Catalyst 5000 Series IOS DESKTOP/IBM	SC5BS-12.0.7T=
Cisco Catalyst 5000 Series IOS DESKTOP/IBM 40	SC5BSK-12.0.7T=
Cisco Catalyst 5000 Series IOS DESKTOP/IBM IPSEC 56	SC5BSL-12.0.7T=
Cisco Catalyst 5000 Series IOS IP	SC5C-12.0.7T=
Cisco Catalyst 5000 Series IOS IP 40	SC5CK-12.0.7T=
Cisco Catalyst 5000 Series IOS IP IPSEC 3DES	SC5CK2-12.0.7T=
Cisco Catalyst 5000 Series IOS IP IPSEC 56	SC5CL-12.0.7T=
Cisco Catalyst 5000 Series IOS ENTERPRISE	SC5A-12.0.8=
Cisco Catalyst 5000 Series IOS ENTERPRISE 40	SC5AK-12.0.8=
Cisco Catalyst 5000 Series IOS ENTERPRISE IPSEC 56	SC5AL-12.0.8=
Cisco Catalyst 5000 Series IOS ENTERPRISE/APPN	SC5AN-12.0.8=
Cisco Catalyst 5000 Series IOS ENTERPRISE/APPN 40	SC5ANK-12.0.8=
Cisco Catalyst 5000 Series IOS ENTERPRISE/APPN IPSEC 56	SC5ANL-12.0.8=
Cisco Catalyst 5000 Series IOS DESKTOP/IBM	SC5BS-12.0.8=
Cisco Catalyst 5000 Series IOS IP/IPX/AT/DEC 40	SC5BSK-12.0.8=
Cisco Catalyst 5000 Series IOS DESKTOP/IBM IPSEC 56	SC5BSL-12.0.8=
Cisco Catalyst 5000 Series IOS IP	SC5C-12.0.8=
Cisco Catalyst 5000 Series IOS IP 40	SC5CK-12.0.8=
Cisco Catalyst 5000 Series IOS IP IPSEC 56	SC5CL-12.0.8=
Catalyst 5000 RSM NetFlow License (spare)	FR-NFC5=
Catalyst 5000 RSM InterDomain Routing License (spare)	FR-IRC5=
Cisco IOS Catalyst 5000 RSM WAN Packet Protocols License	FRC5-WPP=
Cisco IOS Catalyst 5000 RSM NAT License	FRC5-NAT=
Cat5500 RSM MPOA Server Feature License Set	FRC5-MPOA-MPS=

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Part Description	Part Number
Cisco Catalyst 5000 Series IOS ENTERPRISE	SC5A-12.0.9=
Cisco Catalyst 5000 Series IOS ENTERPRISE 40	SC5AK-12.0.9=
Cisco Catalyst 5000 Series IOS ENTERPRISE IPSEC 56	SC5AL-12.0.9=
Cisco Catalyst 5000 Series IOS ENTERPRISE/APPN	SC5AN-12.0.9=
Cisco Catalyst 5000 Series IOS ENTERPRISE/APPN 40	SC5ANK-12.0.9=
Cisco Catalyst 5000 Series IOS ENTERPRISE/APPN IPSEC 56	SC5ANL-12.0.9=
Cisco Catalyst 5000 Series IOS DESKTOP/IBM	SC5BS-12.0.9=
Cisco Catalyst 5000 Series IOS IP/IPX/AT/DEC 40	SC5BSK-12.0.9=
Cisco Catalyst 5000 Series IOS DESKTOP/IBM IPSEC 56	SC5BSL-12.0.9=
Cisco Catalyst 5000 Series IOS IP	SC5C-12.0.9=
Cisco Catalyst 5000 Series IOS IP 40	SC5CK-12.0.9=
Cisco Catalyst 5000 Series IOS IP IPSEC 56	SC5CL-12.0.9=
Cisco Catalyst 5000 Series IOS ENTERPRISE	SC5RA-12101=
Cisco Catalyst 5000 Series IOS ENTERPRISE/FW/IDS	SC5RAH-12101=
Cisco Catalyst 5000 Series IOS ENTERPRISE/SNASW	SC5RAR1-12101=
Cisco Catalyst 5000 Series IOS DESKTOP FW/IDS	SC5RBH-12101=
Cisco Catalyst 5000 Series IOS DESKTOP/IBM	SC5RBS-12101=
Cisco Catalyst 5000 Series IOS IP	SC5RC-12101=
Cisco Catalyst 5000 Series IOS IP/FW/IDS	SC5RCH-12101=
Catalyst 5000 Route Switch Module Encryption	
Cisco Catalyst 5000 Series IOS ENTERPRISE/SNASwitch IPSEC 56	IC5AR1L-12.0.5XN
Cisco Catalyst 5000 Series IOS ENTERPRISE/SNASwitch IPSEC 56	IC5AR1K2-12.0.5XN
Cisco Catalyst 5000 Series IOS ENTERPRISE IPSEC 3DES	IC5AK2-12.0.7T
Cisco Catalyst 5000 Series IOS ENTERPRISE IPSEC 56	IC5AL-12.0.7T
Cisco Catalyst 5000 Series IOS ENTERPRISE/SNASW IPSEC 3DES	IC5AR1K2-12.0.7T
Cisco Catalyst 5000 Series IOS ENTERPRISE/SNASW IPSEC 56	IC5AR1L-12.0.7T
Cisco Catalyst 5000 Series IOS DESKTOP/IBM IPSEC 56	IC5BSL-12.0.7T
Cisco Catalyst 5000 Series IOS IP IPSEC 3DES	IC5CK2-12.0.7T

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Part Description	Part Number
Cisco Catalyst 5000 Series IOS IP IPSEC 56	IC5CL-12.0.7T
Cisco Catalyst 5000 Series IOS ENTERPRISE IPSEC 56	IC5AL-12.0.8
Cisco Catalyst 5000 Series IOS ENTERPRISE/APPN IPSEC 56	IC5ANL-12.0.8
Cisco Catalyst 5000 Series IOS DESKTOP/IBM IPSEC 56	IC5BSL-12.0.8
Cisco Catalyst 5000 Series IOS IP IPSEC 56	IC5CL-12.0.8
Cisco Catalyst 5000 Series IOS ENTERPRISE IPSEC 56	IC5AL-12.0.9
Cisco Catalyst 5000 Series IOS ENTERPRISE/APPN IPSEC 56	IC5ANL-12.0.9
Cisco Catalyst 5000 Series IOS DESKTOP/IBM IPSEC 56	IC5BSL-12.0.9
Cisco Catalyst 5000 Series IOS IP IPSEC 56	IC5CL-12.0.9
Catalyst 5000 Route Switch Module Feature Licenses	
Cisco IOS Catalyst 5000 RSM IP/IPX/AT/DEC to Enterprise VIP	FLC5-B-AV=
Cisco IOS Catalyst 5000 RSM IP to Enterprise VIP	FLC5-C-AV=
Cisco IOS Catalyst 5000 RSM IP to IP/IPX/AT/DEC	FLC5-C-B=
Cisco IOS Catalyst 5000 RSM IP to IP/IPX/AT/DEC/VIP	FLC5-C-BV=
Cisco IOS Catalyst 5000 RSM Series IPSEC 56 Upgrade	FLC5-L=
Cisco Catalyst 5000 Series SNASwitch Upgrade	FLC5-R1=
Cisco Catalyst 5000 Series APPN to SNASwitch Upgrade	FLC5-N-R1=
Catalyst 5000 Series RSFC Software Options	
Cisco Catalyst 5000 RSFC IOS ENTERPRISE	SC5RSFCA-12.0.5W
Cisco Catalyst 5000 RSFC IOS ENTERPRISE	SC5RSFCA-12.0.5W=
Cisco Catalyst 5000 RSFC IOS DESKTOP	SC5RSFCB-12.0.5W
Cisco Catalyst 5000 RSFC IOS DESKTOP	SC5RSFCB-12.0.5W=
Cisco Catalyst 5000 RSFC IOS IP	SC5RSFCC-12.0.5W
Cisco Catalyst 5000 RSFC IOS IP	SC5RSFCC-12.0.5W=
Cisco Catalyst 5000 RSFC IOS ENTERPRISE	SC5RSFCA-12.0.6W
Cisco Catalyst 5000 RSFC IOS ENTERPRISE	SC5RSFCA-12.0.6W=
Cisco Catalyst 5000 RSFC IOS DESKTOP	SC5RSFCB-12.0.6W
Cisco Catalyst 5000 RSFC IOS DESKTOP	SC5RSFCB-12.0.6W=
Cisco Catalyst 5000 RSFC IOS IP	SC5RSFCC-12.0.6W

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Part Description	Part Number
Cisco Catalyst 5000 RSFC IOS IP	SC5RSFCC-12.0.6W=
Cisco Catalyst 5000 RSFC IOS ENTERPRISE	SC5RSFCA-12.0.7W
Cisco Catalyst 5000 RSFC IOS ENTERPRISE	SC5RSFCA-12.0.7W=
Cisco Catalyst 5000 RSFC IOS DESKTOP	SC5RSFCB-12.0.7W
Cisco Catalyst 5000 RSFC IOS DESKTOP	SC5RSFCB-12.0.7W=
Cisco Catalyst 5000 RSFC IOS IP	SC5RSFCC-12.0.7W
Cisco Catalyst 5000 RSFC IOS IP	SC5RSFCC-12.0.7W=
Cisco Catalyst 5000 RSFC IOS ENTERPRISE	SC5RSFCA-12.0.3W
Cisco Catalyst 5000 RSFC IOS ENTERPRISE	SC5RSFCA-12.0.3W=
Cisco Catalyst 5000 RSFC IOS DESKTOP	SC5RSFCB-12.0.3W
Cisco Catalyst 5000 RSFC IOS DESKTOP	SC5RSFCB-12.0.3W=
Cisco Catalyst 5000 RSFC IOS IP	SC5RSFCC-12.0.3W
Cisco Catalyst 5000 RSFC IOS IP	SC5RSFCC-12.0.3W=
Catalyst 5000 Software Licenses	
Catalyst 5K, IPX Feature License	FL-C5K-IPX
Catalyst 5K, IPX Feature License (spare)	FL-C5K-IPX=
Catalyst 5K Rel. 5.x SW License, Enhanced Feature Set	FL-C5K-EFS-5X
Catalyst 5K Rel. 5.x SW Lic, Enhanced Feature Set (spare)	FL-C5K-EFS-5X=
Catalyst 5K Rel. 5.x SW Lic, Enhanced Feature Set(upgrade)	FL-C5K-EFS-5X-UG
Catalyst 5000 Rel. 4.x SW License, Enhanced Feature Set	SWC5K-BEFS-4X
Catalyst 5000 Rel. 4.x SW License, Enhanced (spare)	SWC5K-BEFS-4X=
Catalyst 5000 Rel. 4.x SW License, Enhanced Upgrade	SWC5K-BEFS-4X-UG
Catalyst 5000 Agent Licenses	
Catalyst 5000 RMON Agent License	WS-C5K-EMS-LIC
Catalyst 5002 RMON Agent License	WS-C5002-EMS-LIC
Catalyst 5500 RMON Agent License	WS-C5500-EMS-LIC
Catalyst 5505 RMON Agent License	WS-C5505-EMS-LIC
Catalyst 5509 RMON Agent License	WS-C5509-EMS-LIC
Catalyst 5000 Accessories	
Catalyst 5000 Fan Tray	WS-C5004=
Catalyst 5000 Family Center Rack Mount Kit	WS-C5097=
Catalyst 5000 Cable Guide (spare)	WS-C5098=
Catalyst 5000/5505 Rack-Mount Kit (spare)	WS-C5099=
Catalyst 5500 Rack Mount Kit	WS-C5599=
Catalyst 5500 Fan Tray (spare)	WS-C5504=

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Part Description	Part Number
Catalyst 5XXX Supervisor Engine II Boot ROM Kit (spare)	WS-X5509-BOOT=
Catalyst 5XXX Supervisor Engine III Boot ROM Kit (spare)	WS-X5530-BOOT=
Catalyst 5505/5509 Backplane Clock Module (spare)	WS-C5514-CL=
Catalyst 5505 Backplane Clock Module (spare)	WS-C5505-CL=
Catalyst 5500 Backplane Clock Module	WS-C5500-CL=
Catalyst 5509 Fan Tray (spare)	WS-C5509-FAN=
Catalyst 5509 Rack Mount Kit and Cable Organizer	WS-C5509-RACK=

Product and Part Numbers

Part Numbers for the CiscoWorks 2000

Part Description	Part Number
CiscoWorks 2000 - CWSI Campus and Resource Manager Essentials - Windows NT	CWE+C-NT-COMB1
CiscoWorks 2000 - CWSI Campus and Resource Manager Essentials - Solaris	CWE+C-SOL-COMB1
CiscoWorks 2000 - CWSI Campus and Resource Manager Essentials - AIX	CWE+C-AIX-COMB1
CiscoWorks 2000 - CWSI Campus and Resource Manager Essentials - HP-UX	CWE+C-UX-COMB1

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