
Catalyst 6000 Family — Multilayer Switches

Product Overview

The Catalyst 6000 Family delivers high-performance, multilayer switching solutions for Enterprise and Service Provider networks. Designed to address the increased requirements for gigabit scalability, high-availability, and multilayer switching in backbone/distribution and server-aggregation environments, the Catalyst 6000 Family complements the Catalyst 5000 Family and 8500 Series switches, which continue to provide premier wiring closet and network-core solutions, respectively. Together, the Catalyst Family delivers a wide range of intelligent solutions, enabling internet/intranets for multicast, mission-critical, and voice applications.

The Catalyst 6000 Family delivers exceptional scalability and price/performance, supporting a wide range of interface densities, performance, and high-availability options. Its application intelligence and quality-of-service mechanisms enable customers to effectively leverage their network for increased mission-critical applications, such as multicast and ERP, without sacrificing network performance. Coupled with the extensive network services of Cisco IOS, the Catalyst 6000 Family delivers powerful management, user mobility, security, high-availability, and multimedia support required for today's networks.

The Catalyst 6000 Family consists of the Catalyst 6000 Series and the Catalyst 6500 Series. Both series support 6- and 9-slot versions, providing a wide range of configuration and price/performance options. Both Catalyst 6000 and 6500 Series switches support a wide range of interface types and densities, to include support for up to 384 10/100 Ethernet, 192 100FX Fast Ethernet, 8 OC12 ATM, and up to 130 Gigabit Ethernet ports - the highest in the industry. The architecture of the Catalyst 6500 Series supports scalable switching bandwidth up to 256 Gbps and scalable multilayer switching up to 150 Mpps. For customers not requiring the performance of the Catalyst 6500 Series, the Catalyst 6000 Series provides a more cost-effective solution, delivering backplane bandwidth of 32 Gbps and multilayer switching up to 30 Mpps. For investment protection, both series support the same suite of supervisors, interface line cards, and common equipment providing a wide range of price/performance options.

Key Features and Benefits

- Scalable platforms, ranging from the Catalyst 6000 Series which offers 32 Gbps of switching capacity and scalable multilayer switching up to 30 Mpps, to the Catalyst 6500 Series offering scalable switching capacity up to 256 Gbps and multilayer switching up to 150 Mpps
- Modular chassis within both Catalyst 6000 and 6500 Series, offering slot densities of 6- and 9-slot systems. Catalyst 6006, 6009, 6506, and 6509 support a wide range of configuration and price/performance options. Both switches series support the same suite of supervisors, interface line cards, and common equipment, easing sparing requirements and protecting investments with upward performance migration
- Supports a wide range of interface types and densities, to include support for up to 384 10/100 Ethernet, 192 100FX Fast Ethernet, and up to 130 gigabit Ethernet ports
- MultiLayer Switch Feature Card (MSFC) available for wire-rate IP, IPX and IP-multicast routing support, as well as support for AppleTalk, DecNet, and Vines; MSFC also supports web-caching techniques for cost-effective web-scaling
- Transceiver flexibility is supported on all gigabit Ethernet ports, such that interface requirement changes do not require a new module, but can be satisfied by a simple GBIC change
- Supports up to 8 physical Fast Ethernet or Gigabit Ethernet links using either Fast EtherChannel (FEC) or Gigabit EtherChannel (GEC), respectively, for logical connections up to 16 Gbps. EtherChannel ports can also be aggregated across modules for even higher-availability connectivity.
- Leverages the software and management infrastructure of the Catalyst Family, providing industry-leading services based upon Cisco Internetwork Operating System (Cisco IOS). Cisco IOS delivers a full suite of software services responsible for managing network security, allocating and enforcing quality of service, and providing value-added services enabling high network resiliency. Cisco IOS also provides the management framework for CiscoWorks2000 and Cisco Resource Essentials.
- Efficient intranet multimedia and multicast support through Protocol Independent Multicast (PIM), Internet Group Management Protocol (IGMP), Cisco Group Management Protocol (CGMP), and GARP Multicast Registration Protocol (GMRP) deliver end-to-end, scalable bandwidth for multimedia and multicast applications

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- Policy Feature Card (PFC) available for wire-rate traffic detection and classification, admission control, and access list; also supports Accelerated Server Load-Balancing in conjunction with Cisco Local Director intelligence.
 - Extensive Quality of Service (QoS) support through use of Layer-2/3/4 information such as precedence bits from IP, Cisco's ISL, and 802.1p frames or Layer-4 port numbers. Support for multiple queues with configurable thresholds, and ToS/CoS-mapping mechanisms to insure that QoS is maintained as packets traverse Layer-2/Layer-3 boundaries. Resource Reservation Protocol (RSVP) priority mapping also used, ensuring timely delivery of time-sensitive intranet applications
 - Support for a broad range of Cisco IOS-based security mechanisms such as port filtering, enabling individual ports to allow access only to certain workstations. TACACS+ and IP permit lists prevent unauthorized access to the switch in secure management environments. Access control lists (ACLs) secure networks from unauthorized users. MD5 Route Authentication is also used to prevent fraudulent routing updates
 - Support for Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), and dynamic VLAN services for optimal, scalable performance, and easing moves, adds and changes
 - Support for multiple levels of network resiliency and serviceability. Device-level fault tolerance, to include the following options:
 - Redundant Supervisors
 - Redundant Load-Sharing Power Supplies (AC & DC)
 - Redundant Load-Sharing Fans
 - Redundant System Clocks
 - Redundant Uplinks
 - Redundant Switch Fabrics (Catalyst 6500 Series only)

All system elements including power supplies, fans, supervisors, line-card modules, and switch fabrics are hot-swappable such that elements can be added, removed or replaced without service interruption of unrelated traffic flows. In dual-Supervisor configurations, Cisco's Fast-Switchover will transfer switch control to the redundant Supervisor within seconds for mission-critical applications requiring maximum network availability. All system elements are also field replaceable units (FRUs) for maximizing serviceability and minimizing network downtime

For network-level resilience, Catalyst 6000 Family switches also support automatic recovery from failure using Spanning Tree per VLAN, and support load-sharing for faster link convergence using Fast EtherChannel or Gigabit EtherChannel technologies. Load balancing with even higher availability can also be accommodated using Cisco's MultiModule Channeling, where ports from different line cards can be aggregated into higher-bandwidth links. Catalyst 6000 Family switches are also capable of load balancing across Layer-3 paths.

For maximum availability, the Catalyst 6000 Family switches support Hot Standby Routing Protocol (HSRP), providing fast cutover to a backup system in the event of a catastrophic failure.

- Supervisor Engine supports hardware-based, wire-rate switching
 - Scalable support for multiprotocol routing
 - Address table for up to 32,000 MAC addresses
 - Wire-rate learning
 - Support for protocol filtering
- Support for both AC and DC power-supply options; also supports dual power-supply configurations
- Rack-mount hardware and cable guide available
- Console/Auxiliary port via RJ-45 (female) data terminal equipment (DTE) for local or remote connectivity

FlexWAN module

The FlexWAN module (WS-X6182-2PA) extends scalable WAN and MAN connectivity options to the Catalyst 6000 Series, simplifying network design and reducing the cost of network management, maintenance, and training. The FlexWAN module supports the majority of Cisco 7200 and 7500 WAN single wide interfaces, ranging from fractional T1/E1 to OC3 offering flexible migration options for Cisco 7200 and 7500 series customers and providing a bridge between existing LAN/WAN/MAN and legacy networks to future high-speed converged networks.

For more information on FlexWAN modules for the Catalyst 6000 Series, see

Specifications

Hardware

Table 21-45: Technical Specifications for Catalyst 6000 Series and 6500 Series

Description	Specification
Switching Backplane	Catalyst 6000 Series: 32 Gbps Catalyst 6500 Series: Scalable to 256 Gbps
Memory	64 MB DRAM (Supervisor 1) 64 MB DRAM (MSFC); expandable to 128 MB Optional 16 and 24 MB Flash PCMCIA cards
Interfaces	Gigabit Ethernet (SX LX/LH, and ZX interfaces via GBICs) 100BaseFX MMF (MT-RJ) 10/100BaseTX (RJ-45 and RJ-21 Options) ATM OC12 (Single mode and Multimode Options)
Switch Load indicator	Approximates switch load from 1 to 100%
Supervisor Engine Status LED	• Orange: Module is booting; Running diagnostics; Minor temperature threshold exceeded; • Green: All diagnostics pass; Module is operational • Red: Failed diagnostics; Major temperature threshold exceeded; Module not operational
System LED displays chassis environmental status	• Green: All chassis environmental monitors okay • Orange: Power supply failure; Incompatible power supplies installed; Power supply fan failure; Minor backplane temperature threshold exceeded; Redundant backplane clock failure • Red: Supervisor Engine over temperature condition; Major backplane temperature threshold exceeded
Supervisor Active LED	• Green: Operational and active • Orange: Standby mode
PWR MGMT (Power Management) LED	• Green: Sufficient power for all modules • Orange: Insufficient power for all modules

Description	Specification
PCMCIA LED	Lights when the PCMCIA device is accessed
LINK LEDs for Gigabit Ethernet ports on the Supervisor Engine	- Green: Port is operational - Orange: Software disabled (solid); Disabled due to hardware failure (flashing)
Standard Network Protocols	IEEE 802.1Q, 802.1p, 802.3x·Ethernet: IEEE 802.3, 10BaseT, and 10BaseFL·Fast Ethernet: IEEE 802.3u, 100BaseTX, 10BaseFX Gigabit Ethernet: IEEE 802.3z

Table 21-46: Power Requirements for Catalyst 6000 Series and 6500 Series

Description	Specification
AC Input Current	17.6A max. @ 100VAC 8.8A max. @ 200VAC
DC Input current	-38A @ 48VDC -30A @ 60VDC
KVA rating	1.8KVA
AC Output power	1300W max.
DC Output power	1360W
Heat Dissipation	6140 BTU/hr max.

Table 21-47: Physical and Environmental Specifications for Catalyst 6000 Series and 6500 Series

Description	Specification
Dimensions (H x W x D)	Catalyst 6006 and 6506 switches: 20.1 x 17.2 x 18.1 in. (49.7 x 42.5 x 44.7 cm) Catalyst 6009 and 6509 switches: 25.2 x 17.2 x 18.1 in. (62.3 x 42.5 x 44.7 cm)
Minimum weight	65 lb (29.4 kg)
Maximum weight	150 lb (67.9 kg)
Mounting	19 in. (48.26 cm) rack-compatible (rack and cable guide hardware included)
Operating temperature	32 to 104°F (0 to 40°C)
Storage	-60 to 4000 m
Mean time between temperature	-40 to 167°F (-40 to 75°C)
Relative humidity	10 to 90%, noncondensing
Operating altitude failures (MTBF)	Seven years for system configuration

Table 21-48: Regulatory Approvals for Catalyst 6000 Series and 6500 Series

Description	Specification
Safety Certifications	UL 1950 EN 60950 CSA-C22.2 no. 950 IEC 950
Electromagnetic Emissions Certifications	FCC 15J Class A VCCI CE II CE Mark EN 55022 Class B CISPR 22 Class B

Software

Table 21-49: Software Specifications for Catalyst 6000 Family

Description	Specification
Embedded Manageability	• NewFlow data export • TopN ports report • RMON agent • HC RMON (High Capacity, 64-bit counters) • Switched Port Analyzer (SPAN) and Enhanced-SPAN • Multiple Concurrent SPAN • Remote SPAN • Filtered SPAN • Syslog support • Telnet/command line interface support • IP TraceRoute • Domain Name Server (DNS) services • Network Time Protocol (NTP) • Cisco Discovery Protocol (CDP) v2 • VLAN Trunking Protocol (VTP) • IEEE Generic Attribute Registration Protocol (GARP) • IEEE GARP VLAN Registration Protocol (GVRP) • VLAN Query Protocol (VQP) • Simple Network Management Protocol (SNMP) v2c agent • SNMP MIB-II support • SNMP MIB Additions and Enhancements - Cisco-Switch-Engine-MIB - Cisco-Memory-Pool-MIB - Entity-MIB - TraceRoute MIB • SNMP Traps • Multiple module software download • Multiple Default IP Gateway • Login banner for console
Scalability	• IP Multilayer Switching • IP Multicast Multilayer Switching • IPX Multilayer Switching • Multi-protocol routing: Appletalk, DECnet, Vines, OSI, and CLNS • IP Routing Protocols: RIPv1/v2, OSPF, IGRP, EIGRP, BGP4, IS-IS • Jumbo Gigabit Ethernet Frame switching • Accelerated Server Load Balancing • IEEE GARP Multicast Registration Protocol • Fast EtherChannel/Gigabit EtherChannel/PAgP • ISL Trunking • 802.1Q / 802.1p • Dynamic Trunking Protocol (DTP) • Dynamic VLAN VMPS client • VTP, VTP version 2 • VTP Pruning

Description	Specification
Bandwidth Management	• Protocol Filtering • Internet Group Management Protocol (IGMP) snooping • Broadcast suppression • Link load balancing • Fast EtherChannel (FEC) / Gigabit EtherChannel (GEC)
Network Resilience	• Redundant supervisors with Active Uplinks • BackboneFast convergence • UplinkFast convergence • PortFast convergence • FEC/GEC IP address-based Load Balancing • FEC/GEC Across Line Modules • Uni-Directional Link Detection (UDLD) • Interswitch Link (ISL) 802.1Q • Spanning Tree Protocol (STP) • Spanning Tree per VLAN • Enable/disable STP per VLAN • Hot Standby Router Protocol (HSRP) • Open Shortest Path First (OSPF) • Enhanced Internet Gateway Routing Protocol (EIGRP) • EtherChannel to Servers
Security Services	• Port Security • TACACS+ authentication • RADIUS Authentication • IP Permit list • Traps and syslog messages sent upon security violations • Advanced Layer 2/3/4 Intra-VLAN Access Lists (VACL) • Advanced Layer 3/4 Inter-VLAN Standard and Extended Access List • Reflexive ACL • Dynamic ACL • Policy-based Routing • Network Address Translation
Quality of Service	• IP precedence detection and classification • 802.1Q/802.1p detection and classification • IP Differentiated Services packet detection and classification • Bandwidth Policing • Congestion Avoidance (Per-port WRED drop thresholds) • Traffic Scheduling (Per-port Weighted Round Robin queue scheduling) • COPS/RSVP • Port level delay and drop threshold settings
Multicast	• Cisco Group Management Protocol (CGMP) • Protocol Independent Multicast (PIM) (sparse and dense modes) • IGMP/IGMP snooping • IEEE GARP Multicast Registration Protocol (GMRP)

Ordering Information

Where to buy Cisco products

Visit http://www.cisco.com/public/ordering_info.shtml

Product and Part Numbers

Part Numbers for the Cisco 6000 Series

Part Description	Part Number
Catalyst 6000	
Catalyst 6xxx - Base Configuration	
Catalyst 6006 Chassis	WS-C6006
Catalyst 6006 Spare Chassis (One Power Supply Required)	WS-C6006=
Catalyst 6006 Chassis w/ 1000W AC Power Supply	WS-C6006-1000AC=
Catalyst 6006 Chassis w/ 1300W AC Power Supply	WS-C6006-1300AC=
Catalyst 6009 Chassis	WS-C6009
Catalyst 6009 Spare Chassis (One Power Supply Required)	WS-C6009=
Catalyst 6009 Chassis w/ 1300W AC Power Supply	WS-C6009-1300AC=
Catalyst 6009 Chassis w/ 2500W AC Power Supply	WS-C6009-2500AC=
Catalyst 6506 Chassis	WS-C6506
Catalyst 6506 Spare Chassis (One Power Supply Required)	WS-C6506=
Catalyst 6506 Chassis w/ 1000W AC Power Supply	WS-C6506-1000AC=
Catalyst 6506 Chassis w/ 1300W AC Power Supply	WS-C6506-1300AC=
Catalyst 6509 Chassis	WS-C6509
Catalyst 6509 Spare Chassis (One Power Supply Required)	WS-C6509=
Catalyst 6509 Chassis w/ 1300W AC Power Supply	WS-C6509-1300AC=
Catalyst 6509 Chassis w/ 2500W AC Power Supply	WS-C6509-2500AC=
Catalyst 6509 Chassis for NEBS Environments	WS-C6509-NEB
Catalyst 6509 Chassis for NEBS Environments	WS-C6509-NEB=
Catalyst 6000 1000W AC Power Supply	WS-CAC-1000W
Catalyst 6000 1000W AC Power Supply, Spare	WS-CAC-1000W=
Catalyst 6000 Second 1000W AC Power Supply	WS-CAC-1000W/2
Catalyst 6000 1300W AC Power Supply	WS-CAC-1300W

Part Description	Part Number
Catalyst 6000 1300W AC Power Supply,Spare	WS-CAC-1300W=
Catalyst 6000 Second 1300W AC Power Supply	WS-CAC-1300W/2
Catalyst 6000 1300W DC Power Supply	WS-CDC-1300W
Catalyst 6000 1300W DC Power Supply, Spare	WS-CDC-1300W=
Catalyst 6000 Second 1300W DC Power Supply	WS-CDC-1300W/2
Catalyst 6000 2500W AC Power Supply	WS-CAC-2500W
Catalyst 6000 2500W AC Power Supply	WS-CAC-2500W=
Catalyst 6000 Second 2500W AC Power	WS-CAC-2500W/2
Catalyst 6xxx Supervisor Engines	
Catalyst 6000 Supervisor Engine1A, Enhanced QoS, 2GE	WS-X6K-SUP1A-2GE
Catalyst 6000 Supervisor Engine1A, Enhanced QoS, 2GE	WS-X6K-SUP1A-2GE=
Catalyst 6000 Supervisor Engine1-A, 2GE, plus PFC	WS-X6K-SUP1A-PFC
Catalyst 6000 Supervisor Engine1-A, 2GE, plus PFC	WS-X6K-SUP1A-PFC=
*Cat 6000 Red. Sup Eng 1A, 2GE, plus PFC (In Chassis Only)	WS-X6K-S1A-PFC/2
Catalyst 6000 Supervisor Engine1-A, 2GE, plus MSFC & PFC	WS-X6K-SUP1A-MSFC
Catalyst 6000 Supervisor Engine1-A, 2GE, plus MSFC & PFC	WS-X6K-SUP1A-MSFC=
Catalyst 6000 Supervisor Engine1-A, 2GE, plus MSFC-2 & PFC	WS-X6K-S1A-MSFC2
Catalyst 6000 Supervisor Engine1-A, 2GE, plus MSFC-2 & PFC	WS-X6K-S1A-MSFC2=
*Cat. 6000 Red. Sup 1A, 2GE, w/ MSFC & PFC (In Chassis only)	WS-X6K-S1A-MSFC/2
*Cat. 6000 Red.Sup 1A, 2GE, w/MSFC2 & PFC (In Chassis only)	WS-X6K-S1A-MSFC2/2
Catalyst 6500 Supervisor Engine-2, 2GE, plus PFC-2	WS-X6K-S2-PFC2
Catalyst 6500 Supervisor Engine-2, 2GE, plus PFC-2	WS-X6K-S2-PFC2=
*Cat 6500 Red. Sup-2, 2GE, plus PFC-2 (In Chassis Only)	WS-X6K-S2-PFC2/2
Catalyst 6500 Supervisor Engine-2, 2GE, plus MSFC-2 & PFC-2	WS-X6K-S2-MSFC2
Catalyst 6500 Supervisor Engine-2, 2GE, plus MSFC-2 & PFC-2	WS-X6K-S2-MSFC2=
*Cat 6500 Red. Sup2, 2GE, MSFC2 & PFC2 (In Chassis Only)	WS-X6K-S2-MSFC2/2
Catalyst 6xxx Modules	
Catalyst 6000 24-port 10BaseFL MT-RJ Module	WS-X6024-10FL-MT
Catalyst 6000 24-port 10BaseFL MT-RJ Module, Spare	WS-X6024-10FL-MT=

Part Description	Part Number
Catalyst 6000 1-port Multimode OC-12 ATM Module	WS-X6101-OC12-MMF
Catalyst 6000 1-port Multimode OC-12 ATM Module, Spare	WS-X6101-OC12-MMF=
Catalyst 6000 1-port Single-Mode OC-12 ATM Module	WS-X6101-OC12-SMF
Catalyst 6000 1-port Single-Mode OC-12 ATM Module, Spare	WS-X6101-OC12-SMF=
Catalyst 6000 FlexWAN Module	WS-X6182-2PA=
Catalyst 6000 24 Port 100 FX MultiMode MT-RJ	WS-X6224-100FX-MT
Catalyst 6000 24 Port 100 FX MultiMode MT-RJ, Spare	WS-X6224-100FX-MT=
Catalyst 6000 48-port 10/100 RJ-45 Module	WS-X6248-RJ-45
Catalyst 6000 48-port 10/100 RJ-45 Module, Spare	WS-X6248-RJ-45=
Catalyst 6000 48-port 10/100 Telco Module	WS-X6248-TEL
Catalyst 6000 48-port 10/100 Telco Module, Spare	WS-X6248-TEL=
Catalyst 6000 48-port 10/100, Enhanced QoS, Telco	WS-X6248A-TEL
Catalyst 6000 48-port 10/100, Enhanced QoS, Telco	WS-X6248A-TEL=
Catalyst 6000 16-port 1000TX GE Mod., RJ-45	WS-X6316-GE-TX
Catalyst 6000 16-port 1000TX GE Mod., RJ-45	WS-X6316-GE-TX=
Catalyst 6000 24-port 100FX, Enh QoS, MT-RJ, MMF	WS-X6324-100FX-MM
Catalyst 6000 24-port 100FX, Enh QoS, MT-RJ, MMF	WS-X6324-100FX-MM=
Catalyst 6000 24-port 100FX, Enh QoS, MT-RJ, SMF	WS-X6324-100FX-SM
Catalyst 6000 24-port 100FX, Enh QoS, MT-RJ, SMF	WS-X6324-100FX-SM=
Catalyst 6000 Inline Power 10/100 Switching Module 3 Pack	WS-X6348-45V-3PAK=
Catalyst 6000 48-port 10/100, Upgradable to Voice, Enh QoS	WS-X6348-RJ-45
Catalyst 6000 48-port 10/100, Enhanced QoS, RJ-45	WS-X6348-RJ-45=
Catalyst 6000 48-port 10/100, Inline Power, RJ-45	WS-X6348-RJ45V
Catalyst 6000 48-port 10/100, Inline Power, RJ-45	WS-X6348-RJ45V=
Network Analysis Module for Catalyst 6000	WS-X6380-NAM
Network Analysis Module for Catalyst 6000 Spare	WS-X6380-NAM=
Catalyst 6000 Intrusion Detection System Module	WS-X6381-IDS=

Part Description	Part Number
Catalyst 6000 8-port Gigabit Ethernet Module (Req. GBICs)	WS-X6408-GBIC
Catalyst 6000 8-port Gigabit Ethernet Module (Req. GBICs), S	WS-X6408-GBIC=
Catalyst 6000 8-port GE, Enhanced QoS (Req. GBICs)	WS-X6408A-GBIC
Catalyst 6000 8-port GE, Enhanced QoS (Req. GBICs)	WS-X6408A-GBIC=
Catalyst 6000 16-port Gig-Ethernet Mod. (Req. GBICs)	WS-X6416-GBIC
Catalyst 6000 16-port Gig-Ethernet Mod. (Req. GBICs), Spare	WS-X6416-GBIC=
Catalyst 6000 16-port Gig-Ethernet Mod., MT-RJ	WS-X6416-GE-MT
Catalyst 6000 16-port Gig-Ethernet Mod., MT-RJ, Spare	WS-X6416-GE-MT=
Catalyst 6500 16-port GigE Mod: Fabric-Enabled (Req. GBICs)	WS-X6516-GBIC
Catalyst 6500 16-port GigE Mod: fabric-enabled (Req. GBICs)	WS-X6516-GBIC=
Catalyst 6000 Multilayer Switch Feature Card (MSFC)II, Spare	WS-F6K-MSFC2=
Catalyst 6000 Voice Power Feature Card for WS-X6348-RJ-45	WS-F6K-VPWR=
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=
Catalyst 6000 FlexWAN Module	WS-X6182-2PA
Catalyst 6000 24 port FXS Analog Station Interface Module	WS-X6624-FXS
Catalyst 6000 24 port FXS Analog Station Interface Module	WS-X6624-FXS=
Catalyst 6000 8 port Voice T1 and Services Module	WS-X6608-T1
Catalyst 6000 8 port Voice T1 and Services Module	WS-X6608-T1=
Catalyst 6000 8 port Voice E1 and Services Module	WS-X6608-E1
Catalyst 6000 8 port Voice E1 and Services Module	WS-X6608-E1=
Catalyst 6xxx Memory Options	
Catalyst 6000 Supervisor PCMCIA Flash Mem Card, 16MB Option	MEM-C6K-FLC16M
Catalyst 6000 Supervisor PCMCIA Flash Mem Card, 16MB Spare	MEM-C6K-FLC16M=

Part Description	Part Number
Catalyst 6000 Supervisor PCMCIA Flash Mem Card, 24MB Option	MEM-C6K-FLC24M
Catalyst 6000 Supervisor PCMCIA Flash Mem Card, 24MB Spare	MEM-C6K-FLC24M=
Catalyst 6000 WAN Module Memory, 64 MB	MEM-C6K-WAN-64M
Catalyst 6000 WAN Module Memory, 128 MB	MEM-C6K-WAN-128M
Catalyst 6000 WAN Module Memory, 128 MB Spare	MEM-C6K-WAN-128M=
Catalyst 6000 MSFC Mem, 128MB DRAM Option	MEM-MSFC-128MB=
Catalyst 6000 MSFC-2 Mem, 128MB DRAM Option	MEM-MSFC2-128MB=
MSFC2 256MB Memory Option	MEM-MSFC2-256MB
MSFC2 256MB Memory Option	MEM-MSFC2-256MB=
MSFC2 Memory Option 512 MB	MEM-MSFC2-512MB
MSFC2 Memory Option 512 MB	MEM-MSFC2-512MB=
Catalyst 6xxx Software Options	
Catalyst 6000 MSFC IOS ENTERPRISE	S6MSFCA-12103E
Catalyst 6000 MSFC IOS ENTERPRISE W/VIP	S6MSFCAV-12103E
Catalyst 6000 MSFC IOS DESKTOP	S6MSFCB-12103E
Catalyst 6000 MSFC IOS DESKTOP W/ VIP	S6MSFCBV-12103E
Catalyst 6000 MSFC IOS IP	S6MSFCC-12103E
Catalyst 6000 MSFC IOS IP W/VIP	S6MSFCCV-12103E
Catalyst 6000 MSFC IOS IP/IPX	S6MSFCD-12103E
Catalyst 6000 MSFC IOS IP/IPX W/VIP	S6MSFCDV-12103E
Catalyst 6000 MSFC2 IOS ENTERPRISE	S6MSFC2A-12103E
Catalyst 6000 MSFC2 IOS ENTERPRISE W/VIP	S6MSFC2AV-12103E
Catalyst 6000 MSFC2 IOS DESKTOP	S6MSFC2B-12103E
Catalyst 6000 MSFC2 IOS DESKTOP W/ VIP	S6MSFC2BV-12103E
Catalyst 6000 MSFC2 IOS IP	S6MSFC2C-12103E
Catalyst 6000 MSFC2 IOS IP W/VIP	S6MSFC2CV-12103E
Catalyst 6000 MSFC2 IOS IP/IPX W/VIP	S6MSFC2DV-12103E
Catalyst 6000 SUP1/MSFC IOS ENTERPRISE	S6SUP11A-12103E
Catalyst 6000 SUP1/MSFC IOS DESKTOP	S6SUP11B-12103E
Catalyst 6000 SUP1/MSFC IOS IP	S6SUP11C-12103E
Catalyst 6000 SUP1/MSFC IOS IP/IPX	S6SUP11D-12103E
Catalyst 6000 SUP1/MSFC2 IOS ENTERPRISE	S6SUP12A-12103E
Catalyst 6000 SUP1/MSFC2 IOS DESKTOP	S6SUP12B-12103E

Part Description	Part Number
Catalyst 6000 SUP1/MSFC2 IOS IP	S6SUP12C-12103E
Catalyst 6000 SUP1/MSFC2 IOS DESKTOP	S6SUP12D-12103E
Catalyst 6K Network Analysis Module Software Image, 1.1(1)	SC6K-NAM-1.1.1
Catalyst 6000 MSFC2 IOS ENTERPRISE	S6MSFC2A-12102E
Catalyst 6000 MSFC2 IOS ENTERPRISE	S6MSFC2A-12102E=
Catalyst 6000 MSFC2 IOS ENTERPRISE W/VIP	S6MSFC2AV-12102E
Catalyst 6000 MSFC2 IOS ENTERPRISE W/VIP	S6MSFC2AV-12102E=
Catalyst 6000 MSFC2 IOS DESKTOP	S6MSFC2B-12102E
Catalyst 6000 MSFC2 IOS DESKTOP	S6MSFC2B-12102E=
Catalyst 6000 MSFC2 IOS IP/IPX	S6MSFC2BP-12102E
Catalyst 6000 MSFC2 IOS IP/IPX	S6MSFC2BP-12102E=
Catalyst 6000 MSFC2 IOS DESKTOP W/ VIP	S6MSFC2BV-12102E
Catalyst 6000 MSFC2 IOS DESKTOP W/ VIP	S6MSFC2BV-12102E=
Catalyst 6000 MSFC2 IOS IP	S6MSFC2C-12102E
Catalyst 6000 MSFC2 IOS IP	S6MSFC2C-12102E=
Catalyst 6000 MSFC2 IOS IP W/VIP	S6MSFC2CV-12102E
Catalyst 6000 MSFC2 IOS IP W/VIP	S6MSFC2CV-12102E=
Catalyst 6000 MSFC2 IOS IP/IPX W/VIP	S6MSFC2DV-12102E
Catalyst 6000 MSFC2 IOS IP/IPX - W/ VIP	S6MSFC2DV-12102E=
Catalyst 6000 SUP1/MSFC IOS ENTERPRISE	S6SUP11A-12102E
Catalyst 6000 SUP1/MSFC IOS ENTERPRISE	S6SUP11A-12102E=
Catalyst 6000 SUP1/MSFC IOS IP/IPX	S6SUP11B-12102E
Catalyst 6000 SUP1/MSFC IOS IP/IPX	S6SUP11B-12102E=
Catalyst 6000 SUP1/MSFC IOS IP	S6SUP11C-12102E
Catalyst 6000 SUP1/MSFC IOS IP	S6SUP11C-12102E=
Catalyst 6000 SUP1/MSFC IOS DESKTOP	S6SUP11D-12102E
Catalyst 6000 SUP1/MSFC IOS DESKTOP	S6SUP11D-12102E=
Catalyst 6000 SUP1/MSFC2 IOS ENTERPRISE	S6SUP12A-12102E
Catalyst 6000 SUP1/MSFC2 IOS ENTERPRISE	S6SUP12A-12102E=
Catalyst 6000 SUP1/MSFC2 IOS IP/IPX	S6SUP12B-12102E
Catalyst 6000 SUP1/MSFC2 IOS IP/IPX	S6SUP12B-12102E=
Catalyst 6000 SUP1/MSFC2 IOS IP	S6SUP12C-12102E
Catalyst 6000 SUP1/MSFC2 IOS IP	S6SUP12C-12102E=
Catalyst 6000 SUP1/MSFC2 IOS DESKTOP	S6SUP12D-12102E

Part Description	Part Number
Catalyst 6000 SUP1/MSFC2 IOS DESKTOP	S6SUP12D-12102E=
Cisco cat6k ATM Series IOS OC12 MODULES X6101 MMF SMF	SC6ATM-12102E
Cisco cat6k ATM Series IOS OC12 MODULES X6101 MMF SMF	SC6ATM-12102E=
Catalyst 6000 MSFC IOS ENTERPRISE	SC6MSFCA-12102E
Catalyst 6000 MSFC IOS ENTERPRISE	SC6MSFCA-12102E=
Catalyst 6000 MSFC IOS ENTERPRISE W/VIP	SC6MSFCAV-12102E
Catalyst 6000 MSFC IOS ENTERPRISE W/VIP	SC6MSFCAV-12102E=
Catalyst 6000 MSFC IOS DESKTOP	SC6MSFCB-12102E
Catalyst 6000 MSFC IOS DESKTOP	SC6MSFCB-12102E=
Catalyst 6000 MSFC IOS IP/IPX	SC6MSFCBP-12102E=
Catalyst 6000 MSFC IOS IP/IPX W/VIP	SC6MSFCBV-12102E
Catalyst 6000 MSFC IOS W/VIP FLASH IMAGE - DESKTOP	SC6MSFCBV-12102E=
Catalyst 6000 MSFC IOS IP	SC6MSFCC-12102E
Catalyst 6000 MSFC IOS IP	SC6MSFCC-12102E=
Catalyst 6000 MSFC IOS IP W/VIP	SC6MSFCCV-12102E
Catalyst 6000 MSFC IOS W/VIP FLASH IMAGE - IP	SC6MSFCCV-12102E=
Catalyst 6000 MSFC IOS IP/IPX W/VIP	SC6MSFCDV-12102E
Catalyst 6000 MSFC IOS W/VIP FLASH IMAGE - IP/IPX	SC6MSFCDV-12102E=
Catalyst 6000 Supervisor 2 Flash Image w/ SSH, Release 6.1.1	SC6K-SUP2K9-6.1.1
Catalyst 6000 Supervisor 2 Flash Image w/ SSH, Release 6.1.1	SC6K-SUP2K9-6.1.1=
Catalyst 6000 Supervisor 1 Flash Image w/ SSH, Release 6.1.1	SC6K-SUPK9-6.1.1
Catalyst 6000 Supervisor 1 Flash Image w/ SSH, Release 6.1.1	SC6K-SUPK9-6.1.1=
Catalyst 6000 Supervisor 1 Flash Image, Release 6.1.1	SC6K-SUP-6.1.1
Catalyst 6000 Supervisor 1 Flash Image, Release 6.1.1	SC6K-SUP-6.1.1=
Catalyst 6000 Supervisor 2 Flash Image, Release 6.1.1	SC6K-SUP2-6.1.1
Catalyst 6000 Supervisor 2 Flash Image, Release 6.1.1	SC6K-SUP2-6.1.1=
Cat6K Supervisor 1 Flash Image w/ CiscoView, Release 6.1.1	SC6K-SUPCV-6.1.1
Catalyst 6000 Supervisor Flash Image, Release 5.5(3)	SC6K-SUP-5.5.3
Cat6K Supervisor Flash Image w/ CiscoView, Release 5.5(3)	SC6K-SUPCV-5.5.3
Catalyst 6000 Supervisor Flash Image, Release 5.5(2)	SC6K-SUP-5.5.2

Part Description	Part Number
Cat6K Supervisor Flash Image w/ CiscoView, Release 5.5(2)	SC6K-SUPCV-5.5.2
Catalyst 6000 Supervisor Flash Image, Release 5.4(4)	SC6K-SUP-5.4.4
Catalyst 6000 Supervisor Flash Image, Release 5.4(4)	SC6K-SUP-5.4.4=
Cat6K Supervisor Flash Image w/ CiscoView, Release 5.4(4)	SC6K-SUPCV-5.4.4
Cat6K Supervisor Flash Image w/ CiscoView, Release 5.4(4)	SC6K-SUPCV-5.4.4=
Catalyst 6000 Supervisor Flash Image, Release 5.4(3)	SC6K-SUP-5.4.3
Catalyst 6000 Supervisor Flash Image, Release 5.4(3)	SC6K-SUP-5.4.3=
Cat6K Supervisor Flash Image w/ CiscoView, Release 5.4(3)	SC6K-SUPCV-5.4.3
Cat6K Supervisor Flash Image w/ CiscoView, Release 5.4(3)	SC6K-SUPCV-5.4.3=
Catalyst 6000 Supervisor Flash Image, Release 5.4(2)	SC6K-SUP-5.4.2
Catalyst 6000 Supervisor Flash Image, Release 5.4(2)	SC6K-SUP-5.4.2=
Cat6K Supervisor Flash Image w/ CiscoView, Release 5.4(2)	SC6K-SUPCV-5.4.2
Cat6K Supervisor Flash Image w/ CiscoView, Release 5.4(2)	SC6K-SUPCV-5.4.2=
Catalyst 6000 Supervisor Flash Image, Release 5.2(1)	SFC6K-SUP-5.2.1
Catalyst 6000 Supervisor Flash Image, Release 5.3(3)	SFC6K-SUP-5.3.3
Catalyst 6000 Supervisor Flash Image, Release 5.3(3)	SFC6K-SUP-5.3.3=
Catalyst 6000 Supervisor Flash Image, Release 5.3(5)	SFC6K-SUP-5.3.5
Catalyst 6000 Supervisor Flash Image, Release 5.5(1)	SC6K-SUP-5.5.1
Catalyst 6000 Supervisor Flash Image, Rel. 5.5(1) Spare	SC6K-SUP-5.5.1=
Cat6K Supervisor Flash Image w/ CiscoView, Release 5.5(1)	SC6K-SUPCV-5.5.1
Cisco Catalyst 6000 Series IOS ATM OC12 MODULES X6101	SC6ATM-12.0.5XS
Cisco Catalyst 6000 Series IOS ATM OC12 MODULES X6101	SC6ATM-12.0.5XS=
Catalyst 6000 MSFC IOS Flash Image - Enterprise	SC6MSFCA-12.0.7XE
Cisco Catalyst 6000 MSFC IOS ENTERPRISE (Diskette)	SC6MSFCA-12.0.7XE=
Catalyst 6000 MSFC IOS Flash Image - Desktop	SC6MSFCB-12.0.7XE
Cisco Catalyst 6000 MSFC IOS DESKTOP (Diskette)	SC6MSFCB-12.0.7XE=
Catalyst 6000 MSFC IOS Flash Image - IP	SC6MSFCC-12.0.7XE

Part Description	Part Number
Cisco Catalyst 6000 MSFC IOS IP (Diskette)	SC6MSFCC-12.0.7XE=
Catalyst 6000 MSFC IOS Flash Image - IP/IPX	SC6MSFCD-12.0.7XE
Cisco Catalyst 6000 MSFC IOS IP/IPX (Diskette)	SC6MSFCD-12.0.7XE=
Catalyst 6000 Supervisor IOS SLB Feature License	FR-IOSSLB=
Catalyst 6000 Supervisor IOS SLB Feature License	FR-IOSSLB
Catalyst 6000 Family InterDomain Routing Feature License	FR-IRC6
Catalyst 6000 Family InterDomain Routing Feature License	FR-IRC6=
Catalyst 6000 MSM IPX Feature Set License, Spare	FRC6-MSM-IPX=
Catalyst 6000 MSFC IOS W/VIP FLASH IMAGE - ENTERPRISE	SC6MSFCAV-12101EX
Catalyst 6000 MSFC IOS W/VIP FLASH IMAGE - ENTERPRISE	SC6MSFCAV-12101EX=
Catalyst 6000 MSFC IOS W/VIP FLASH IMAGE - DESKTOP	SC6MSFCBV-12101EX
Catalyst 6000 MSFC IOS W/VIP FLASH IMAGE - DESKTOP	SC6MSFCBV-12101EX=
Catalyst 6000 MSFC IOS W/VIP FLASH IMAGE - IP	SC6MSFCCV-12101EX
Catalyst 6000 MSFC IOS W/VIP FLASH IMAGE - IP	SC6MSFCCV-12101EX=
Catalyst 6000 MSFC IOS W/VIP FLASH IMAGE - IP/IPX	SC6MSFCDV-12101EX
Catalyst 6000 MSFC IOS W/VIP FLASH IMAGE - IP/IPX	SC6MSFCDV-12101EX=
Catalyst 6000 MSFC IOS ENTERPRISE	SC6MSFCA-12101E
Catalyst 6000 MSFC IOS ENTERPRISE W/VIP	SC6MSFCAV-12101E
Catalyst 6000 MSFC IOS DESKTOP	SC6MSFCB-12101E
Catalyst 6000 MSFC IOS W/VIP FLASH IMAGE - DESKTOP	SC6MSFCBV-12101E
Catalyst 6000 MSFC IOS IP	SC6MSFCC-12101E
Catalyst 6000 MSFC IOS W/VIP FLASH IMAGE - IP	SC6MSFCCV-12101E
Catalyst 6000 MSFC IOS W/VIP FLASH IMAGE - IP/IPX	SC6MSFCDV-12101E
Catalyst 6000 SUPERVISOR IOS ENTERPRISE	SC6SUPA-12101E
Catalyst 6000 SUPERVISOR IOS IP/IPX	SC6SUPB-12101E
Catalyst 6000 SUPERVISOR IOS IP	SC6SUPC-12101E
Catalyst 6000 SUPERVISOR IOS DESKTOP	SC6SUPD-12101E
Catalyst 6000 MSFC IOS ENTERPRISE	SC6MSFCA-12101E=
Catalyst 6000 MSFC IOS ENTERPRISE W/VIP	SC6MSFCAV-12101E=

Part Description	Part Number
Catalyst 6000 MSFC IOS DESKTOP	SC6MSFCB-12101E=
Catalyst 6000 MSFC IOS IP/IPX	SC6MSFCBP-12101E=
Catalyst 6000 MSFC IOS W/VIP FLASH IMAGE - DESKTOP	SC6MSFCBV-12101E=
Catalyst 6000 MSFC IOS IP	SC6MSFCC-12101E=
Catalyst 6000 MSFC IOS W/VIP FLASH IMAGE - IP	SC6MSFCCV-12101E=
Catalyst 6000 MSFC IOS W/VIP FLASH IMAGE - IP/IPX	SC6MSFCDV-12101E=
Catalyst 6000 SUPERVISOR IOS ENTERPRISE	SC6SUPA-12101E=
Catalyst 6000 SUPERVISOR IOS IP/IPX	SC6SUPB-12101E=
Catalyst 6000 SUPERVISOR IOS IP	SC6SUPC-12101E=
Catalyst 6000 SUPERVISOR IOS DESKTOP	SC6SUPD-12101E=
Catalyst 6xxx Spares and Accessories	
Catalyst 6000 Voice Power Feature Card for WS-X6348-RJ-45	WS-F6K-VPWR=
Catalyst 6006 Spare Chassis (One Power Supply Required)	WS-C6006=
Catalyst 6009 Spare Chassis (One Power Supply Required)	WS-C6009=
Catalyst 6506 Spare Chassis (One Power Supply Required)	WS-C6506=
Catalyst 6509 Spare Chassis (One Power Supply Required)	WS-C6509=
Catalyst 6000 1000W AC Power Supply, Spare	WS-CAC-1000W=
Catalyst 6000 1300W AC Power Supply, Spare	WS-CAC-1300W=
Catalyst 6000 1300W DC Power Supply, Spare	WS-CDC-1300W=
Catalyst 6000 48-port 10/100 Telco Module, Spare	WS-X6248-TEL=
Catalyst 6000 Fan Tray for 9-Slot Systems, Spare	WS-C6K-9SLOT-FAN=
Catalyst 6000 Fan Tray for 6-Slot Systems, Spare	WS-C6K-6SLOT-FAN=
Catalyst 6x06 Rack Mount Kit and Cable Organizer, Spare	WS-C6X06-RACK=
Catalyst 6x09 Rack Mount Kit and Cable Organizer, Spare	WS-C6X09-RACK=
Catalyst 6500 Switch Fabric Module	WS-C6500-SFM
Catalyst 6500 Switch Fabric Module	WS-C6500-SFM=
Catalyst 6000 Supervisor1 Boot ROM Kit, Spare	WS-X6K-BOOT=
Catalyst 6000 Blank Line Card Slot Cover	WS-X6K-SLOT-CVR=
Power Cord, 250Vac 16A, Europe	CAB-AC-2500W-EU
Power Cord, 250Vac 16A, Europe	CAB-AC-2500W-EU=
Power Cord, 250Vac 16A, Europe	CAB-AC-2500W-INT=

Part Description	Part Number
Power Cord, 250Vac 16A, straight blade NEMA 6-20 plug, US	CAB-AC-2500W-US1
Power Cord, 250Vac 16A, straight blade NEMA 6-20 plug, US	CAB-AC-2500W-US1=
Catalyst 6xxx Licenses	
Catalyst 6x06 RMON Agent License	WS-C6X06-EMS-LIC
Catalyst 6x09 RMON Agent License	WS-C6X09-EMS-LIC

Documentation

For part numbers for product specific documentation, visit
http://www.cisco.com/univercd/cc/td/doc/pcat/swdo__d1.htm

