



Routing

Routing at a Glance

Product	Features	Page
<i>Cisco 800 Series</i>	<p>Integrated services routers allow small offices to operate secure concurrent services, including 1-5 firewall, VPNs, and wireless LANs, at broadband speeds</p> <ul style="list-style-type: none"> • Wireless support—Optional IEEE 802.11 b/g on 850 and 870 Series • Enhanced security features including stateful inspection firewall and hardware assisted encryption and QoS (Cisco 870 series) features for VoIP • DMZ, Dial back up and out-of-band management (Cisco 870 series) • SDM GUI tool for simple and advanced configuration 	
<i>Cisco 1800 Series</i>	<p>Modular and fixed architectures—Offers wide variety of LAN and WAN options; network interfaces on Cisco 1841 are field-upgradeable for flexibility and to accommodate future technologies</p> <ul style="list-style-type: none"> • Fixed configuration models offer 10/100 ethernet, ADSL over ISDN, ADSL over POTS, or G.SHDSL WAN interfaces with integrated ISDN BRI (1801, 1802, 1803, and 1812) or analog modem (1811) backup interfaces • Wireless LAN access using IEEE 802.11 a/b/g is available for all models of the 1800 Series 	1-6
<i>Cisco 2800 Series</i>	<p>Integrated services routers that are optimized for the secure, wire-speed delivery of concurrent 1-13 data, voice, and video services for small- to- midsize business and enterprise branch routing</p> <ul style="list-style-type: none"> • Superior performance with multiple services enabled for 1-6 T1/E1 links • Advanced security features including Stateful Firewall, IPS, VPN and NAC • Built-in encryption using DES, 3DES, and AES • Wireless support via integrated IEEE 802.11 a/b/g standalone access point HWICs 	
<i>Cisco 3800 Series</i>	<p>Integrated Services Routers</p> <ul style="list-style-type: none"> • Highest performance and densities with the ability to run concurrent data, security, voice, and advanced services at wire speed up to T3/E3 • Higher availability and resiliency with Online Insertion and Removal (OIR): redundant system and inline power options • High-speed WAN Interface Cards (HWICs) free up network module slots for other services • Enhanced security • Expanded default and maximum memory capacity with Error Correction Code (ECC) DDR SDRAM memory to detect and correct SDRAM errors without user intervention • Wireless support via integrated IEEE 802.11 a/b/g standalone access point HWICs 	1-19
<i>Cisco 7200 Series</i>	<p>Optimized OC3/GE WAN-edge router providing intelligent services, high modularity, high performance, investment protection, and scalability in a small form factor</p> <ul style="list-style-type: none"> • Modular, 1-RU or 4-RU Chassis • 1-, 4-, or 6-slot models for Port/Service Adapters • 1 I/O slot (for 4- and 6-slot model) • Choice of system processors (NPE) for up to 2 Mpps performance (7201 comes with built in NPE) • Built in Gigabit Ethernet connectivity—copper or fiber (3-ports on NPE-G2 or 4 ports on 7201) <p>Wide variety of LAN and WAN options, including Ethernet, Fast Ethernet, Gigabit Ethernet, Token Ring, serial, ISDN, HSSI, ATM, and Packet over SONET as well as voice support including IP-to-IP Gateway (Session Border Controller) and Quality of Service (QoS).</p>	1-26
<i>Cisco 7300 Series</i>	<ul style="list-style-type: none"> • 7304—Network Edge router with high performance IP services delivered at optical speeds for 1-29 service providers and enterprise networks • 7301—Broadband and WAN-edge router providing intelligent services, PA modularity, high performance, investment protection, and scalability in a 1-RU form factor 	
<i>Cisco 7600 Series</i>	<ul style="list-style-type: none"> • Consolidated WAN/MAN/LAN in a single platform • Scalable backplane bandwidth from 32 Gbps to 720 Gbps and performance from 30 Mpps to over 400 Mpps with new Sup720 or RSP720 engine and distributed forwarding line cards • High-volume aggregation of service-enabled Ethernet • Wide range of WAN/MAN interfaces from NxDSO, T1, T3 to OC-192 with line rate services. Support technologies including Serial, High-speed Serial, Channelize, POS, ATM and Ethernet. • Ideal for service provider edge, metropolitan area network, & triple-play deployments, and high-end enterprise solutions • Also supports Catalyst 6500 series line cards and 7500/7200 port adapters • Supports a broad range of advanced service modules, such as IPSec SPA, DDOS, FWSM, and ACE(Server Load Balancing) 	1-32

Product	Features	Page
Cisco 10700 Series	Service provider-class metro edge services router <ul style="list-style-type: none"> Optimized building block for the next generation metro Ethernet/IP access networks Equipped with either (24) 10/100 or 4 GbE and 8 FE ports for customer access and OC-48c/STM-16c dynamic packet transport/resilient packet ring (DPT/RPR) technology or Packet Over SONET (POS) for metro optical connectivity Supports IEEE 802.17 standard compliant RPR technology 	1-46
Cisco XR 12000/12000 Series	Service provider-class multiservice-edge router to enable customer to transition toward a converged IP Network Infrastructure <ul style="list-style-type: none"> Supports edge-optimized line cards maximizing the value of line-rate edge applications with 10G uplinks while sustaining line-rate performance Up to nine chassis options with new power supply and blower enhancements supporting a portfolio of SPAs and SIPs Extensive portfolio of line cards and SPAs that support POS, ATM, Ethernet, DPT/RPR and copper, channelized physical interfaces Service-related enhancements (L3VPN, L2VPN, QoS) that ensures traffic differentiation while meeting the strictest customer service-level agreements 	1-48
Product Ordering Web site	To place an order, visit the Cisco Ordering Web site: http://www.cisco.com/en/US/ordering/index.shtml	

Cisco Routers Port Matrix

	800 Series	1800 Series	2800 Series	3800 Series	7100 Series	7200/7301 Series	7304 Series	7600 Series	10700 Series	12000 Series
Fixed Ports Only	X									
Fixed & Modular Ports		X	X	X	X	X	X	X		X
Modular Ports Only									X	
LAN Ports										
10-Mbps Ethernet					X	X		X	X	
10-Mbps Ethernet (fiber)					X	X		X		
100-Mbps Ethernet		X	X	X	X	X		X	X	X
100-Mbps Ethernet (fiber)				X	X	X	X	X	X	X
10/100-Mbps Ethernet	X	X	X	X	X	X	X	X	X	X
10/100 Mbps Switch Port	X	X	X	X				X		
Cable DOCSIS 2.0	X	X	X	X						
Token Ring				X	X	X	X ¹			
ATM			X	X		X	X			
Gigabit Ethernet			X ⁵	X	X	X	X	X	X	X
10 Gigabit Ethernet								X		X
Wireless LAN Access Point	X	X	X	X						
Wireless LAN										
Integrated Standalone Access Point		X	X	X	X					
Wireless LAN Controller				X	X					
WAN Ports										
Sync Serial		X	X	X		X	X	X		
Sync Serial w/ CSU		X	X	X						
ISDN BRI (S/T)	X	X	X	X	X	X				
ISDN BRI (U)		X	X	X	X	X				
ISDN PRI/Ch T1			X	X	X	X				
ISDN PRI w/ CSU			X	X		X				
Async		X	X	X						
Analog/POTS			X	X						
Integrated Modems		X	X	X						
Integrated Modem WICs		X	X	X						
HSSI				X	X	X	X	X		
DS3			X ²	X	X	X	X	X		X

Chapter 1

	800 Series	1800 Series	2800 Series	3800 Series	7100 Series	7200/7301 Series	7304 Series	7600 Series	10700 Series	12000 Series
ATM OC-3					X	X	X	X		X
ATM OC-12							X	X		X
ATM			X	X		X	X	X		
ATM - T1/E1			X	X	X	X	X	X		
POS OC-x/STM-x					X	X	X	X		X
DPT/RPR OC-12/STM-4										X
DPT/RPR OC-48/STM-16								X	X	X
DPT/RPR OC-192/STM-64										X
ADSL, ADSL 2+, G.SHDSL	X	X	X	X						
ADSL over ISDN	X	X	X	X						
G.SHDSL	X	X	X	X						
IDSL		X	X	X						
DPT									X	X
<i>Voice Over IP (VoIP)</i>										
Analog Voice Interfaces			X	X						
Digital Voice Interfaces			X	X		X		X		
ISDN BRI Digital Voice Interfaces			X	X						
<i>Integrated Switching</i>										
Integrated 4-port Switch	X									
Integrated 8-port Switch		X ²								
Integrated 4-port Switch HWIC		X ³	X	X						
Integrated 9-port Switch HWIC			X	X						
Integrated 16-port Switching			X ⁴	X						
Integrated 24-port Switching			X ⁵	X						
Integrated 36-port Switching			X ⁶	X						
Integrated 48-port Switching			X ⁶	X						
Power over Ethernet (PoE)	X	X	X	X						
<i>Content Acceleration</i>										
Content Engine			X	X				X		
<i>Security VPN</i>										
IPS	X	X	X	X	X	X		X		
Hardware-based encryption	X	X	X	X						
Encryption Advanced Integration Modules		X ³	X	X				X		
Encryption Service Adapter						X ⁷	X ¹	X		

1. 7301 only
2. Except 1841
3. 1841 only
4. Cisco 2811, 2821, and 2851 only
5. Cisco 2821 and 2851 only
6. Cisco 2851 only
7. VAM2+ and VSA Supported

Memory Information for Routers

Router	Memory Type	Slots	Default		Default Configuration (Notes)
			Memory	Max Memory	
815	Flash	1	32 MB	64 MB	
	DRAM	1		128 MB	
851, 857	Flash	1	20 MB	20 MB	20 MB On board
	DRAM	1	64 MB	64 MB	64 MB On board
871, 876, 877, 878	Flash	1	24 MB or 28 MB ¹	52 MB	20MB On board + 4MB or 8MB* Mini Flash
	DRAM	1	128 MB	256 MB	128 MB On board + 128MB DIMM module * Advanced IP Services image includes 28MB flash
1800 Series	Flash	1	32 MB	128 MB	External compact flash
	DRAM	1	128 MB	384 MB	128 MB on motherboard, plus one slot
2800 Series	DRAM (2801)		128 MB	384 MB	Slot 0 = 128 MB, Slot 1 = Empty
	DRAM (2811)		256 MB	768 MB	Slot 0 = 256MB, Slot 1 = Empty
	DRAM (2821)		256 MB	1 GB	Slot 0 = 256MB, Slot 1 = Empty
	DRAM (2851)		256 MB	1 GB	Slot 0 = 256MB, Slot 1 = Empty
	Compact Flash (2801)		64 MB	128 MB	Single 64 MB Compact Flash default
	Compact Flash (2811)		64 MB	256 MB	Single 64 MB Compact Flash default
	Compact Flash (2821)		64 MB	256 MB	Single 64 MB Compact Flash default
3800 Series	Flash (External Compact Flash)	1	64 MB	256 MB	Single 64 MB Compact Flash default
	DDR SDRAM (ECC)	2	256 MB	1 GB	Slot 0 = 256MB, Slot 1 = Empty
7100 Series	Flash (PCMCIA)	2	48 MB	110 MB	Slot 0 = 48 MB
	System SDRAM	2	64 MB	256 MB	Slot 0 = 64 MB
	Packet SDRAM		64 MB	64 MB	
7200 Series	Flash for 7201	1	256 MB	256 MB	
	Flash (PCMCIA) (for IO controller card; IO controller card required for NPE-225, NPE-400)	2	64 MB	128 MB	
	Flash for NPE-G1 (Compact Flash)	1	64 MB	256 MB	
	Flash for NPE-G2 (Compact Flash)	1	256 MB	256 MB	
	DRAM (NPE-225)	2	128 MB	256 MB	
	DRAM (NPE-400)	2	256 MB	512 MB	
	DRAM (NPE-G1)	2	256 MB	1 GB	
	DRAM (NPE-G2)	1	1 GB	2 GB	
7301 Series	Flash (CFM)	1	64 MB	256 MB	
	DRAM	1	256 MB	1 GB	
7304 NSE-100	Flash (CFM)	1	256 MB	256 MB	
	DRAM	1	512 MB	512 MB	
7304 NPE-G100	Flash (CFM)	1	256 MB	256 MB	
	DRAM	1	1 GB	1 GB	
7304 NSE-150			2 GB	2 GB	
7600 Series	Flash (PCMCIA)	1	16 MB	512 MB	
	DRAM (Sup 2)	1	128 MB	512 MB	
	DRAM (MSFC2)	1	128 MB	512 MB	
	DRAM (PFC2)	1	128 MB	256 MB	
	DRAM (Sup720-3B)	1	512 MB	512 MB	
	DRAM (Sup720-3BXL)	1	1 GB	1 GB	
10700 Series	Flash (Internal)	1	64 MB	64 MB	Maximum memory is configured with No Option
	SDRAM RP	1	512 MB	512 MB	
	Packet Buffer	1	64 MB	64 MB	
XR 12000/ 12000 Series	Flash (PCMCIA)	2	48 MB	256 MB	
	SDRAM (PRP-1)	1	512 MB	1 GB	Route Memory
	SDRAM (PRP-2)	1	1 GB	4 GB	Route Memory
	DRAM (Line Cards)	1/2	128-256 MB	256 MB - 1 GB	

1. Advanced IP Services image includes 28MB flash

Cisco 800 Series

The Cisco 800 series router provides enhanced network security, wireless LAN, and proven reliability through Cisco IOS software, for small offices and telecommuters. It connects users to the Internet or to a corporate LAN via one ADSL, ADSL over ISDN, G.SHDSL, Cable DOCSIS 2.0, or with an Ethernet WAN port connected to an external broadband modem.



When to Sell

Sell This Product When a Customer Needs These Features

- Cisco 800 Series*
- Companies with Cisco IOS-based networks who want to add telecommuters or very small branch offices
 - Service providers who offer value-added services to small offices
 - VARs who are familiar with Cisco IOS software and want to profitably service small office customers
 - Ethernet LAN ports and variety of WAN connectivity, including: ISDN BRI, ADSL, G.SHDSL
 - Locations with advanced security and wireless LAN requirements

Key Features

- Fixed configuration support for several types of WAN connections
- Optional standalone IEEE 802.11 b/g wireless LAN access point for 850 and 870 Series
- Standard security with ACLs, PAT/NAT, PAP/CHAP, MS-CHAP, Lock and Key, and Generic Routing Encapsulation (GRE) tunneling
- Enhanced security with stateful inspection firewall, IPSec encryption (3DES and AES encryption on Cisco 850 and 870 Series). The Cisco 870 Series also includes security features like IPS, 802.1x, Dynamic Multipoint VPN (DMVPN), EasyVPN, and URL filtering
- Out-of-band management and dial backup with an external modem via aux/console port on the 870 series routers
- Dial backup via integrated ISDN port on the 876
- X.25 over D-channel support on 876
- DMZ interface on all 870 routers. Optional external power injector for Power Over Ethernet (PoE) on 870 routers
- Integrated 4-port 10/100 Ethernet Switch on Cisco 850 and 870 series
- Bandwidth optimization features such as compression, Bandwidth-on-Demand, Dial-on-Demand, Always-On-Dynamic-ISDN (AODI), and X.25 over D channel (Cisco 876)

Specifications

Feature	851	857	871	876	877	878
<i>Fixed LAN Port Connections</i>	4-port 10/100 Ethernet switch	4-port 10/100 Ethernet switch	4-port 10/100 Ethernet switch	4-port 10/100 Ethernet switch	4-port 10/100 Ethernet switch	4-port 10/100 Ethernet switch
<i>Fixed WAN Port Connections</i>	1-port 10/100 Ethernet	1-port ADSL, ADSL 2/2+	1-port 10/100 Ethernet	1-port ADSL-over-ISDN, 1-port ISDN S/T (ADSL, ADSL 2/2+)	1-port ADSL over POTS (ADSL, ADSL 2/2+)	1-port G.SHDSL
<i>Wireless LAN</i>	IEEE 802.11 b/g (*W* model)	IEEE 802.11 b/g (*W* model)	IEEE 802.11 b/g (*W* model)	IEEE 802.11 b/g (*W* model)	IEEE 802.11 b/g (*W* model)	IEEE 802.11 b/g (*W* model)
<i>Wireless Antenna</i>	Single fixed antenna	Single fixed antenna	Dual removable antennas	Dual removable antennas	Dual removable antennas	Dual removable antennas
<i>Maximum VPN Tunnels</i>	5	5	10	10	10	10
<i>NAC</i>	No	No	Yes	Yes	Yes	Yes
<i>URL Filtering</i>	No	No	Yes	Yes	Yes	Yes
<i>Stateful Firewall</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Inline IPS</i>	No	No	Yes	Yes	Yes	Yes

Selected Part Numbers and Ordering Information¹

Cisco 800 Series Routers

CISCO815-VPN/K9	Cisco 815 ISR, NA DOSCIS Compliant, with Security
CISCO851-K9	Cisco 851 Ethernet to Ethernet Router
CISCO851W-G-A-K9	Cisco 851 Ethernet to Ethernet Wireless Router: Americas
CISCO851W-G-E-K9	Cisco 851 Ethernet to Ethernet Wireless Router: Europe
CISCO851W-G-J-K9	Cisco 851 Ethernet to Ethernet Wireless Router: Japan
CISCO857-K9	Cisco 857 ADSL Router
CISCO857W-G-A-K9	Cisco 857 ADSL Wireless Router: U.S. and Americas
CISCO857W-G-E-K9	Cisco 857 ADSL Wireless Router: Europe
CISCO871-K9	Cisco 871 Ethernet to Ethernet Router
CISCO871W-G-A-K9	Cisco 871 Ethernet to Ethernet Wireless Router: U.S./Americas
CISCO871W-G-E-K9	Cisco 871 Ethernet to Ethernet Wireless Router: Europe
CISCO871W-G-J-K9	Cisco 871 Ethernet to Ethernet Wireless Router: Japan
CISCO876-K9	Cisco 876 ADSL over ISDN Router
CISCO876W-G-E-K9	Cisco 876 ADSL over ISDN Wireless Router
CISCO877-K9	Cisco 877 ADSL Router
CISCO877W-G-A-K9	Cisco 877 ADSL Wireless Router: U.S./Americas
CISCO877W-G-E-K9	Cisco 877 ADSL Wireless Router: Europe
CISCO878-K9	Cisco 878 G.SHDSL Router
CISCO878W-G-A-K9	Cisco 878 G.SHDSL Wireless Router: U.S./Americas
CISCO878W-G-E-K9	Cisco 878 G.SHDSL Wireless Router: Europe

Cisco 800 Series Memory Options

MEM870-4F=	Cisco 870 Series 4 MB Flash spare
MEM870-8F=	Cisco 870 Series 8 MB Flash spare
MEM870-16F=	Cisco 870 Series 16 MB Flash spare
MEM870-32F=	Cisco 870 Series 32 MB Flash spare
MEM870-64D=	Cisco 870 Series 64 MB SDRAM spare
MEM870-128D=	Cisco 870 Series 128 MB SDRAM spare
MEM870-8F-IOSUPG	Cisco 870 Series 8 MB Flash and IOS Bundle

Cisco 800 Series Accessories

800-ILPM-4	4 port 802.3af capable Inline power module for 800 Routers
PWR-850-870-WW1=	Cisco 850/870 Series, AC Power Supply Spare

Cisco 800 Series Basic Maintenance

CON-SNT-PKG1	Cisco 800 Series SMARTnet Maintenance (8x5xNBD)
--------------	---

1. This is only a small subset of all parts available via URL listed under "For More Information." Some parts have restricted access or are not available through distribution channels.

For More Information

See the Cisco 800 Series Web site: <http://www.cisco.com/go/800>

Cisco 1800 Series

Cisco 1800 Series integrated services routers are the next evolution of the award-winning Cisco 1700 Series modular and fixed access routers. The Cisco 1800 Series is designed for secure data connectivity via frame relay, leased line, or broadband access, and wireless local area networks. It features secure, fast, and high-quality delivery of multiple, concurrent services for small-to-medium-sized businesses and small enterprise branch offices.



When to Sell

Sell This Product

Cisco 1801, 1802, 1803

When a Customer Needs These Features

- Secure data access via broadband DSL
- Primary WAN access via ADSL over POTS (1801), ADSL over ISDN (1802), or G.SHDSL (1803)
- ADSL 2/2+ capability on 1801 and 1802
- Backup WAN interface using ISDN BRI
- Integrated 8-port managed 10/100 Ethernet switch
- Integrated IEEE 802.11 a/b/g wireless LAN ("W" models)

*Sell This Product**Cisco 1811, 1812**When a Customer Needs These Features*

- Secure data access at broadband rates
- Using 10/100 Ethernet as a WAN access connecting to external DSL or cable modem
- Backup WAN interface using V.92 analog modem (1811) or ISDN BRI (1812)
- Integrated 8-port managed 10/100 Ethernet switch
- Integrated IEEE 802.11 a/b/g wireless LAN (“W” models)

Cisco 1841

- Secure data access solution for customer environments up to T1/E1/xDSL WAN rates with services turned on
- Modularity for flexibility in WAN configurations
- Support for a broad array of WAN services
- Comprehensive security features

Key Features

- Available with IEEE 802.11 a/b/g wireless access point (Cisco 1801-1812 “W” models, 1841 HWIC-AP part number)
- Modular Cisco 1841 provides flexibility with internal AIM slot designated for higher speed VPNs and future applications; Provides several slot types to add future connectivity and services on an “integrate-as-you-grow” basis
- Integrated 8-port 10/100 Ethernet switch with PoE on fixed configuration Cisco 1801-1812. Optional 4-port switch HWIC on Cisco 1841
- Supports the latest Cisco IOS Software-based QoS bandwidth management features
- Advanced device management—using Cisco Router and SDM
- High-performance processor—Supports concurrent deployment of high-performance, secure data services with headroom for future applications
- Integrated hardware-based encryption acceleration—Offers cryptography accelerator as standard integrated hardware that can be enabled with an optional Cisco IOS Software for 3DES and AES encryption support
- Security performance enhanced feature set; Offers intrusion prevention system (IPS), Network Admission Control (NAC), and firewall functions
- Allows LAN segmentation using Virtual LANs (VLANs)
- Integrated standard power supply—Easier router platform installation and management

Specifications

<i>Feature</i>	<i>Cisco 1841 Series</i>	<i>Cisco 1800 Series Fixed-Configuration Routers</i>
<i>Form factor</i>	Desktop, 1-rack-unit (1-RU) height (4.75 cm high with rubber feet)	Desktop, 1-rack-unit (1-RU) high (4.75-cm high with rubber feet)
<i>Target Applications</i>	Secure data with frame relay or leased line access (T1/E1)	Secure data with broadband access and backup WAN
<i>Chassis</i>	Metal	Metal
<i>Wall-mountable</i>	Yes	Yes
<i>Rack-mountable</i>	Yes (optional 19-in rackmount kit is required)	Yes (optional 19-in. rack-mount kit required)
<i>Dimensions (W x D)</i>	13.5 x 10.8 in. (34.3 x 27.4 cm): Height without rubber feet: 1.73 in. (4.39 cm); Height with rubber feet: 1.87 in. (4.75 cm)	12.74 x 9.7 in. (32.36 x 24.64 cm): Height without rubber feet: 1.75 in. (4.45 cm); Height with rubber feet: 1.89 in. (4.80 cm)
<i>Weight</i>	Maximum: 6.2 lb. (2.8 kg); with interface cards and modules; Minimum: 6.0 lb. (2.7 kg) (no interface cards and modules)	Maximum: 6.1 lb. (2.8 kg)
<i>DRAM</i>	Synchronous dual in-line memory module (DIMM) DRAM	Synchronous dual in-line memory module (DIMM) SDRAM (1 DIMM slot)
<i>DRAM capacity</i>	Default: 128 MB; Maximum: 384 MB	Default: 128 MB; Maximum: 384 MB
<i>Flash memory</i>	External removable compact Flash	External removable Compact Flash
<i>Flash memory capacity</i>	Default: 32 MB; Maximum: 128 MB	Default: 32 MB; Maximum: 128 MB
<i>Modular slots - total</i>	Two	None
<i>Modular slots (WAN)</i>	Two	None
<i>Modular slots (HWICs)</i>	Two	None
<i>Modular slots (voice)</i>	None: The Cisco 1841 does not support voice	None: The Cisco 1800 Series does not support voice

<i>Feature</i>	<i>Cisco 1841 Series</i>	<i>Cisco 1800 Series Fixed-Configuration Routers</i>
<i>VoIP support</i>	Voice-over-IP (VoIP) pass-through only	Same as 1841
<i>ADSL Port</i>	ADSL over POTS, ADSL over ISDN via WAN Interface Card	One ADSL over POTS port on Cisco 1801. One ADSL over ISDN on Cisco 1802. The Cisco 1801 supports ADSL over POTS standards G.992.1 G.DMT and ANSI T1.413 DMT Issue 2. The Cisco 1802 supports ADSL over ISDN standards ETSI 101-388, U-R2, and G.992.1 G.DMT. The Cisco 1801 is interoperable with the following DSLAMs: Cisco 6130 and Cisco 6260 IP DSL switches; Alcatel (ASAM 1000 and 7300); Lucent Stinger (24- and 72-port line cards); ECI HiFocus (16- and 32-port line cards). The Cisco 1802 is interoperable with the following DSLAMs: Cisco 6260; Alcatel (ASAM 1000 and 7300); Siemens (XpressLink 2.0 and XpressLink 2.1); Lucent Stinger (48-port line cards); ECI HiFocus (16- and 32-port line cards)
<i>G.SHDSL Port</i>	G.SHDSL 2- and 4-wire support via WAN Interface Card	One G.SHDSL port on Cisco 1803 supports either 2-wire mode or 4-wire mode. The Cisco 1803 supports the same standards as the Cisco G.SHDSL WIC and is based on ITU Recommendation G.991.2 (accepted worldwide).
<i>G. SHDSL DSLAM Interoperability</i>	The WIC-1SHDSL-V3 in 2-wire mode is interoperable with the following DSLAMs: Cisco 6000 Series IP DSL switches; Alcatel ASAM 7300 (12- and 24-port line cards); ECI HiFocus SAM 2401 (16-port Metalink-based line cards); Lucent Stinger FS (32- and 48-port line cards); CopperEdge 200 DSLAM (24-port line cards). The WIC-1SHDSL-V3 in 4-wire mode is interoperable with the following DSLAMs: Alcatel ASAM 7300 (12- and 24-port line cards); CopperEdge 200 DSLAM (24-port line cards)	The Cisco 1803 in 2-wire mode is interoperable with the following DSLAMs: Cisco 6000 Series IP DSL switches; Alcatel ASAM 7300 (12- and 24-port line cards); ECI HiFocus SAM 2401 (16-port Metalink-based line cards); Lucent Stinger FS (32- and 48-port line cards); CopperEdge 200 DSLAM (24-port line cards). The Cisco 1803 in 4-wire mode is interoperable with the following DSLAMs: Alcatel ASAM 7300 (12- and 24-port line cards); CopperEdge 200 DSLAM (24-port line cards)
<i>Onboard Ethernet ports</i>	Two 10/100	10/100BASE-T ports for WAN connection supporting DSL and cable modems and Ethernet access services. (One port is available on Cisco 1801, 1802, and 1803. Two ports are available on Cisco 1811 and
<i>Integrated Ethernet Switch Ports</i>	Optional via 4-port Ethernet switch HWIC, up to 15 VLANs	Eight 10/100BASE-T fully managed switch ports with 802.1Q VLAN and 802.3af PoE support. Up to 8 VLANs
<i>Onboard USB ports</i>	One (1.1)	Two (USB 2.0) on Cisco 1811 and 1812 only. The Cisco 1801, 1802, and 1803 do not offer USB support.
<i>ISDN S/T BRI Port</i>	Optional via WAN Interface Card	One ISDN S/T BRI port on Cisco 1801, 1802, 1803, and 1812
<i>V.92 Analog Modem Port</i>	Optional via WAN Interface Card (1 or 2 ports)	One analog modem port on Cisco 1811
<i>Console port</i>	One: up to 115.2 kbps	One—up to 115.2 kbps
<i>Auxiliary port</i>	One: up to 115.2 kbps	One—up to 115.2 kbps
<i>Onboard AIM slots</i>	One (internal)	None
<i>Packet-voice-DSP-module (PVDM) slots on motherboard</i>	None: The Cisco 1841 does not support voice	None: The Cisco 1800 Series does not support voice
<i>Integrated H/W-based encryption on motherboard</i>	Yes	Yes
<i>Encryption support in software and hardware by default</i>	DES, 3DES, AES 128, AES 192, AES 256	DES, 3DES, AES 128, AES 192, AES 256
<i>IPSec Tunnels</i>	100 with on-board encryption, 800 with VPN AIM	50
<i>IPSec VPN Performance</i>	40 Mbps 3DES @ 1400 byte packets	40 Mbps 3DES @ 1400 byte packets
<i>Cisco IOS Firewall Performance</i>	100 Mbps @ 1400 byte packets	100 Mbps @ 1400 byte packets
<i>Wireless LAN Hardware</i>	Optional IEEE 802.11 a/b/g or IEEE 802.11 b/g via HWIC	IEEE 802.11 a/b/g on wireless models
<i>Wireless LAN features</i>	IEEE 802.11a/b/g; Automatic rate selection for 802.11a/11b/11g; Field-replaceable antennae; External antenna; Antenna diversity; Wi-Fi Certified for WPA-Personal and WPA-Enterprise; Default antenna gain—2.2 dBi	IEEE 802.11a/b/g; Automatic rate selection for 802.11a/11b/11g; Field-replaceable antennae; External antenna; Antenna diversity; Wi-Fi Certified for WPA-Personal and WPA-Enterprise; Default antenna gain—2.2 dBi
<i>Data Rates Supported</i>	802.11a: 6, 9, 12, 18, 24, 36, 48, and 54 Mbps; 802.11g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, and 54 Mbps	802.11a: 6, 9, 12, 18, 24, 36, 48, and 54 Mbps; 802.11g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, and 54 Mbps
<i>Range</i>		Range—Indoor 1 Mbps at 320 ft.

Feature	Cisco 1841 Series	Cisco 1800 Series Fixed-Configuration Routers
Wireless LAN Software Features		Maximize throughput or maximize range option; Software-configurable transmit power; Support for Wi-Fi Multimedia (WMM); Quality of Service (QoS) for WLANs
Wireless LAN Security Features	IEEE 802.1X per-user, per-session mutual authentication with a variety of extensible authentication protocol (EAP) types including Cisco LEAP Protected Extensible Authentication Protocol (PEAP), and EAP-Transport Layer Security (EAP-TLS). Preshared Key (PSK) Authentication; MAC authentication/filter encryption: WPA Temporal Key Integrity Protocol (TKIP) with support for per-packet key hashing, message integrity check; Static and dynamic wired equivalent privacy (WEP) keys of 40 bits and 128 bits; Additional security features: IEEE 802.1X local authentication; Configurable limit for the number of wireless clients; Configurable RADIUS accounting for wireless clients	IEEE 802.1X per-user, per-session mutual authentication with a variety of extensible authentication protocol (EAP) types including Cisco LEAP Protected Extensible Authentication Protocol (PEAP), and EAP-Transport Layer Security (EAP-TLS). Preshared Key (PSK) Authentication; MAC authentication/filter encryption: WPA Temporal Key Integrity Protocol (TKIP) with support for per-packet key hashing, message integrity check; Static and dynamic wired equivalent privacy (WEP) keys of 40 bits and 128 bits; Additional security features: IEEE 802.1X local authentication; Configurable limit for the number of wireless clients; Configurable RADIUS accounting for wireless clients
SSIDs	8	8
Wireless LAN	Supported by CiscoWorks 2000, CiscoView and Router, and Security Device Management (SDM)	Supported by CiscoWorks 2000, CiscoView and Router, and Security Device Management (SDM)
Management Features	GUI-based network management for wireless interface is provided	GUI-based network management for wireless interface is provided
Cisco IOS Software default image	IP BASE -12.4(1)	12.3(8)Y1
Cisco IOS Software default image	IP Base (security and broadband bundles have image upgrades)	Advanced IP services (without voice services) except Cisco 1801 and 1802 which also come with Cisco IOS IP Broadband
User Support	Up to 50 users (recommended)	Up to 50 users (recommended)
Routing Protocols	BGP, EIGRP, OSPF, RIPv1, RIPv2	BGP, EIGRP, OSPF, RIPv1, RIPv2
Routed Protocols	IPv4, IPv6 unicast and multicast (Internet Protocol Exchange [IPX], IBM SNA, AppleTalk supported with optional Advanced Enterprise Services Feature Set)	IPv4, IPv6 unicast and multicast (Internet Protocol Exchange [IPX], IBM SNA, AppleTalk supported with optional Advanced Enterprise Services Feature Set)
QoS Protocols	Weighted Fair Queuing (WFQ), Class-Based WFQ (CBWFQ), Weighted Random Early Detection (WRED), Committed Access Rate (CAR), Resource Reservation Protocol (RSVP), Network-Based Application Recognition	Weighted Fair Queuing (WFQ), Class-Based WFQ (CBWFQ), Weighted Random Early Detection (WRED), Committed Access Rate (CAR), Resource Reservation Protocol (RSVP), Network-Based Application Recognition
Internal system power supply	Yes	Yes
Power over Ethernet (PoE) power supply	None	None
Redundant power supply	No	No
DC power support	No	No
AC input voltage	100 to 240 VAC	100 to 240 VAC
Frequency	50 to 60 Hz	50 to 60 Hz
AC input current	1.5A maximum	1.5A maximum
Output power	50W (maximum)	50W (maximum)
PoE Support	Not supported	Supported on 10/100 Ethernet switch ports with optional PoE kit
PoE Standards	None	IEEE 802.3af, Cisco Prestandard PoE
External PoE Power Supply	None	80W external power supply
System Power Dissipation	153 BTU/hr.	153 BTU/hr.
Operating temp	32 to 104°F (0 to 40°C)	32° to 104°F (0° to 40°C)
Operating humidity	10 to 85% non condensing operating; 5 to 95% non condensing, non operating	10 to 85 percent non condensing operating; 5 to 95 percent non condensing, non operating
Non operating Temp	-4 to 149°F (-25 to 65°C)	-4° to 149°F (-25 to 65°C)
Operating altitude	10,000 feet (3000 meters) @ 77°F (25°C)	10,000 ft. (3000m) at 77°F (25°C)
Noise level	Normal operating temperature: <78° F/25.6°C: 34 dBA; >78°F/25.6°C through; 104°F/40°C	<80°F (27°C): 34 dBA; >80°F (27°C) through <104°F (40°C): 36 dBA; >104°F (40°C): 42 dBA
Safety	UL60950-1; CAN/CSA 60950-1; AS 3260; EN60950-1	UL 60950; CAN/CSA C22.2 No. 60950; IEC 60950-1; EN 60950-1; AS/NZS 60950
EMI	EN 55022, 1998, class A; CISPR22, 1997, class A; CFR47, Part 15, Subpart B, 1995, class A; EN61000-3-2 Harmonic Current Emission (only for equipment >75W but <16A); EN61000-3-3 Voltage Fluctuation and Flicker (only for equipment E16A)	CFR 47 Part 15, Class A; ICES-003 Class A; EN55022 Class A; CISPR22 Class A; AS/NZS 3548; class A; VCCI Class A; EN 300386; EN61000-3-2; EN61000-3-3

Feature	Cisco 1841 Series	Cisco 1800 Series Fixed-Configuration Routers
Immunity	CISPR24, 1997 ITE-Immunity characteristics, Limits and methods of measurement; EN 55024, 1998 ITE-Immunity characteristics, Limits and methods of measurement; EN50082-1, 1997 Electromagnetic compatibility Generic immunity standard, Part 1 EN 300 386, 1997 Telecommunications network equipment EMC requirements; The requirements are covered by the following standards: IEC 61000-4-2:1995 Immunity to Electrostatic Discharges; IEC 61000-4-3:1995 Immunity to Radio Frequency Electromagnetic Fields; IEC 61000-4-4:1995 Immunity to Electrical Fast Transients; IEC 61000-4-5:1995 Immunity to Power Line Transients (Surges); IEC 61000-4-6:1996 Immunity to Radio Frequency Induced Conducted Disturbances; IEC 61000-4-11:1995 Immunity to Voltage Dips, Voltage Variations, and Short Voltage Interruptions	EN300386; EN55024(CISPR24); EN61000-4-2; EN61000-4-3; EN41000-4-4; EN41000-4-5; EN41000-4-6; EN41000-4-8; EN41000-4-11; EN50082-1; EN61000-6-2; ITU-T K.21
Network homologation	USA: TIA-968-A, T1, TR0-6-2001; Canada: CS-03; European Union: RTTE Directive 5/99; Argentina: CTR 21; Australia: AS/ACIF S002, S003, S016, S031, 3043; Brazil: 225-540-788, CTR3, 225-100-717 Edition 3, NET 001/92 1990; China: ITU-G 992.1, ITU-G.992.1, ITU-G.991.2, CTR3, ITU L431 1993; Hong Kong: HKTA 2033, HKTA 2033, HKTA 2014, HKTA 2017 Issue 3 2003, HKTA 2011 Issue 1, HKTA 2011 Issue 2, HKTA 2013 Issue 1; India: I.DCA, 18_02_Jun_99-199, S/ISN-01/02 Issue 1999 S/ISN-02/1 1998, IR/PRI-01/02 Issue 1 1998, S/INT-2W/02 MAY 2001, S/INT-2W/02 MAY 2001; Israel: U.S. approval accepted; Japan: Technical condition (DoC acceptance in process); Korea: U.S. approval accepted; Mexico: U.S. approval accepted; New Zealand: PTC 270/272, CTR 3, ACA 016 Revision 4 1997, PTC 200; Singapore: IDA TS ADSL1 Issue 1, IDA TS ADSL2, IDA TS HDLSL, IDA TS ISDN 1 Issue 1 1999, IDA TS ISDN 3 Issue 1 1999, IDA TS PSTN 1 Issue 4, IDA TS PSTN 1 Issue 4, IDA TS PSTN 1 Issue 4; South Africa: U.S. approval accepted; Taiwan: U.S. approval accepted	Telecom compliance standards depend upon country and interface type. Interfaces comply with FCC Part 68, CS-03, JATE Technical Conditions, European Directive 99/5/EC, and relevant Technical Basis for Regulation (TBRs). For specific information, refer to the data sheet for the specific interface card. Homologation requirements vary by country and interface type. For specific country information, refer to the online approvals database: Cisco 1801, 1802, 1803, and 1812 ISDN BRI S/T; TIA-968-A; IC CS-03 Part VI; JATE Technical Requirements; TBR3, S031

Selected Part Numbers and Ordering Information¹

Cisco 1800 Series (Modular) Integrated Services Routers

CISCO1841	Modular Router w/2xFE, 2 WAN slots, 32 FL/128 DR
CISCO1841-T1	1841 bundle w/WIC-1DSU-T1-V2, IP Base, 32FL/128DR

Cisco 1800 Series (Fixed) Integrated Services Routers

CISCO1801	ADSL/POTS router w/IOS IP Broadband
CISCO1801/K9	ADSL/POTS Router with Firewall/IPS and IPSEC 3DES
CISCO1801-M	ADSL over POTS Annex M Router
CISCO1801-M/K9	ADSL over POTS Annex M Router
CISCO1802	ADSL/POTS router w/IOS IP Broadband
CISCO1802/K9	ADSL/ISDN Router with Firewall/IPS and IPSEC 3DES
CISCO1803/K9	G.SHDSL Router with Firewall/IPS and IPSEC
CISCO1811/K9	Dual Ethernet Security Router with V.92 Modem Backup
CISCO1812/K9	Dual Ethernet Security Router with ISDN S/T Backup

Cisco 1800 Series (Fixed Wireless) Integrated Services Router

CISCO1801W-AG-B/K9	ADSL/POTS Router with 802.11a+g China Compliant and Security
CISCO1801W-AG-C/K9	ADSL/POTS Router with 802.11a+g China Compliant and Security
CISCO1801W-AG-E/K9	ADSL/POTS Router with 802.11a+g ETSI Compliant and Security
CISCO1801W-AG-N/K9	ADSL/POTS Router with 802.11a+g Australia/NZ Compliant and Security
CISCO1802W-AG-E/K9	ADSL/ISDN Router with 802.11a+g ETSI Compliant and Security
CISCO1803W-AG-B/K9	G.SHDSL Router with 802.11a+g FCC Compliant and Security
CISCO1803W-AG-E/K9	G.SHDSL Router with 802.11a+g ETSI Compliant and Security
CISCO1811W-AG-B/K9	Security Router with 802.11a+g FCC Compliant and Analog B/U
CISCO1811W-AG-C/K9	Security Router with 802.11a+g China Compliant and Analog B/U
CISCO1811W-AG-N/K9	Security Router with 802.11a+g Australia/NZ Compliant and Analog B/U
CISCO1812W-AG-C/K9	Security Router with 802.11a+g China Compliant and ISDN S/T
CISCO1812W-AG-E/K9	Security Router with 802.11a+g ETSI Compliant and ISDN S/T

Cisco 1800 Series (modular) Security bundles

CISCO1841-SEC/K9	1841 Security Bundle, Adv. Security, 64FL/256DR
CISCO1841-HSEC/K9	1841 Security bundle w/AIM-VPN, Adv. IP Svcs, 64FL/256DR
CISCO1841-T1SEC/K9	1841 Security Bundle w/ WIC-1DSU-T1-V2, Adv. Sec., 64FL, 256DR

Cisco 1800 Series (modular) Broadband bundles

CISCO1841-ADSL	1841 ADSLoPOTS Bdle, IP Broadband, 32FL/128DR
CISCO1841-ADSL-DG	1841 ADSLoPOTS w/dying gasp Bundle, IP Broadband, 32FL/128DR
CISCO1841-ADSLI	1841 ADSLoISDN Bundle, IP Broadband, 32FL/128DR
CISCO1841-SHDSL-V3	1841 G.shdsl 4-wire Bundle, includes WIC-1SHDSL-V3, IP Broadband, 32 MB flash/128 MB DRAM
CISCO1841-ADSL2	1841 bundle, HWIC-1ADSL, IP BB, 32F/128D

Chapter 1

CISCO1841-ADSL2-B	1841 bundle, HWIC-ADSL-B/ST,IP BB,32F/128D
CISCO1841-2SHDSL	1841 2-pair G.SHDSL bundle, HWIC-2SHDSL, IP Base, 64F/128D
CISCO1841-4SHDSL	1841 4-pair G.SHDSL bundle, HWIC-4SHDSL, IP Base, 64F/128D

Cisco 1841 WAN Interface Cards

WIC-1T	1-Port Serial WAN Interface Card
WIC-2T	2-Port Serial WAN Interface Card
WIC-2A/S	2-Port Async/Sync Serial WAN Interface Card
WIC-1AM	One-port Analog Modem WAN Interface Card
WIC-2AM	Two-port Analog Modem WAN Interface Card
WIC-1DSU-56K4	1-port 4-WIRE 56/64 KBPS WAN INTERFACE CARD
WIC-1ADSL	1-port ADSL WAN Interface Card
WIC-1ADSL-DG	1-port ADSLoPOTS WIC with Dying Gasp
WIC-1ADSL-I-DG	1-port ADSLoISDN Wan Interface Card
WIC-1SHDSL-V3	1-Port G.SHDSL WIC with 2- and 4-wire support
WIC-1B-S/T-V3	1-Port ISDN WAN Interface Card (dial and leased line)
WIC-1B-U-V2	1-Port ISDN BRI NT-1 WIC
WIC-BLANK-PANEL=	Blank WAN Interface Card Panel
WIC-1DSU-T1-V2	Updated 1-Port T1/Fractional T1 DSU/CSU WAN Interface Card

Cisco 1841 High Speed WAN Interface Cards

HWIC-1ADSL	1-port ADSLoPOTS HWIC
HWIC-1ADSLI	1-port ADSLoISDN HWIC
HWIC-ADSL-B/ST	2-port HWIC w/ 1-port ADSLoPOTS and 1-port ISDN BRI-S/T
HWIC-ADSL-I-B/ST	2-port HWIC w/ 1-port ADSLoISDN and 1-port ISDN BRI-S/T
HWIC-4ESW	4-port 10/100 Ethernet switch interface card
HWIC-4A/S	4-Port Async/Sync Serial HWIC
HWIC-8A/S-232	8-Port Async/Sync Serial HWIC, EIA-232
HWIC-8A	8-Port Async HWIC

Cisco 1841 Wireless WAN HWIC

HWIC-3G-GSM	3G WirelessWAN HWIC supporting GPRS/EDGE/UMTS/HSDPA (Global SKU)
HWIC-3G-CDMA-V	3G WirelessWAN HWIC supporting 1xRTT, EVDO Rev A/Rel 0 (Verizon SKU)
HWIC-3G-CDMA-S	3G WirelessWAN HWIC supporting 1xRTT, EVDO Rev A/Rel 0 (Sprint SKU)

Cisco 1841 Wireless HWICs and Accessories

HWIC-AP-G-A	Cisco 802.11 B/G Access Point High Speed Wan Interface Card for the Americas (FCC configuration)
HWIC-AP-G-E	Cisco 802.11 B/G Access Point High Speed Wan Interface Card for Europe (ETSI configuration)
HWIC-AP-G-J	Cisco 802.11 B/G Access Point High Speed Wan Interface Card for Japan (TELEC configuration)
HWIC-AP-AG-A	Cisco 802.11 A/B/G Access Point High Speed Wan Interface Card for the Americas (FCC configuration)
HWIC-AP-AG-E	Cisco 802.11 A/B/G Access Point High Speed Wan Interface Card for Europe (ETSI configuration)
HWIC-AP-AG-J	Cisco 802.11 A/B/G Access Point High Speed Wan Interface Card for Japan (TELEC configuration)
AIR-ANT4941	2.2 dBi Cisco Aironet 2.4 GHz Swivel mount dipole
AIR-ANT5959	2 dBi Cisco Aironet 2.4 GHz Diversity omni-directional ceiling mount patch
AIR-ANT1728	5.2dBi Cisco Aironet 2.4 GHz Omni-directional ceiling mount
AIR-ANTM2050D-R	(2.2 dBi Cisco 2.4 Ghz and 5.0 dBi 5 GHz) Dual band Swivel mount dipole antenna
AIR-ANTM5560P-R	(5.5 dBi Cisco 2.4 Ghz and 6.0 dBi 5 GHz) Dual band Wall-mount patch antenna
AIR-ANTM4050V-R	(4.0 dBi Cisco 2.4 Ghz and 5.0 dBi 5 GHz) Dual band Diversity Ceiling-mount omnidirectional antenna
AIR-CAB020LL-R	20-ft. (6m) low-loss cable with RP-TNC connectors
AIR-CAB050LL-R	50-ft. (15m) low-loss cable with RP-TNC connectors
AIR-CAB100ULL-R	100 ft. (30m) ultra-low-loss cable with RP-TNC connectors
AIR-CAB150ULL-R	150-ft. (46m) ultra-low-loss cable with RP-TNC connector

Cisco 1841 Multiflex Voice/WAN Interface Cards

VVIC-1MFT-E1	1-Port RJ-48 Multiflex Trunk - E1
VVIC-2MFT-E1	2-Port RJ-48 Multiflex Trunk - E1
VVIC-2MFT-E1-DI	2-Port RJ-48 Multiflex Trunk - E1 With Drop and Insert
VVIC-1MFT-T1	1-Port RJ-48 Multiflex Trunk - T1
VVIC-2MFT-T1	2-Port RJ-48 Multiflex Trunk - T1
VVIC-2MFT-T1-DI	2-Port RJ-48 Multiflex Trunk - T1 With Drop and Insert
VVIC-1MFT-G703	1-Port RJ-48 Multiflex Trunk - G.703
VVIC-2MFT-G703	2-Port RJ-48 Multiflex Trunk - G.703
VVIC2-1MFT-T1/E1	1-Port 2nd Gen Multiflex Trunk Voice/WAN Int. Card - T1/E1
VVIC2-2MFT-T1/E1	2-Port 2nd Gen Multiflex Trunk Voice/WAN Int. Card - T1/E1
VVIC2-1MFT-G703	1-Port 2nd Gen Multiflex Trunk Voice/WAN Int. Card - G.703
VVIC2-2MFT-G703	2-Port 2nd Gen Multiflex Trunk Voice/WAN Int. Card - G.703

Cisco 1841 Advanced Integration Modules

AIM-VPN/BP11-PLUS	DES/3DES/AES VPN Encryption/Compression
AIM-VPN/SSL-1	DES/3DES/AES/SSL VPN Encryption/Compression

Cisco 1800 Series Flash Memory Options

MEM1800-32CF=	32MB Cisco 1800 Compact Flash spare
MEM1800-64CF=	64MB Cisco 1800 Compact Flash Memory spare
MEM1800-128CF=	128MB Cisco 1800 Compact Flash Memory spare
MEM1800-32U64CF	32 to 64MB Cisco 1800 Compact Flash factory upgrade
MEM1800-64U128CF	64 to 128 MB Cisco 1800 Compact Flash factory upgrade
MEM1800-32U128CF	32 to 128 MB Cisco 1800 Compact Flash factory upgrade

Cisco 1800 Series USB Memory Options

MEMUSB-64FT=	64MB USB Flash Token for Cisco 1800/2800/3800 series spare
MEMUSB-128FT=	128MB USB Flash Token for Cisco 1800/2800/3800 series spare
MEMUSB-256FT=	256MB USB Flash Token for Cisco 1800/2800/3800 series spare

Cisco 1800 Series DRAM Memory Options

MEM1841-64D=	64MB SODIMM DRAM for Cisco 1841 spare
MEM1841-128D=	128MB SODIMM DRAM for the Cisco 1841 spare
MEM1841-256D=	256MB SODIMM DRAM for the Cisco 1841 spare
MEM1841-128U192D	128 to 192MB SODIMM DRAM factory upgrade for the Cisco 1841
MEM1841-128U256D	128 to 256MB SODIMM DRAM factory upgrade for the Cisco 1841
MEM1841-128U384D	128 to 384MB SODIMM DRAM factory upgrade for the Cisco 1841
MEM1841-256U384D	256 to 384MB SODIMM DRAM factory upgrade for the Cisco 1841

Cisco 1800 Series Spares and Accessories

PWR-184X-AC=	Cisco 184X AC standard power supply spare
ACS-184X=	Accessory Kit for Cisco 184X spare
ACS-1841-RM-19=	Rackmount kit for 1841 spare
SW-CONFIG-1800-001	Configuration of software via CCO for 1800 series
CX-CUSTOM-BUILD	Please complete this P.O. via CX Tool

Cisco 1800 Series (modular) Software CD Feature Packs

CD18-AISK9=	CISCO 1841 ADVANCED IP SERVICES Feature Pack spare
CD18-ASK9=	CISCO 1841 ADVANCED SECURITY Feature Pack spare
CD18-AESK9=	CISCO 1841 ADVANCED ENTERPRISE SERVICES Feature Pack spare
CD18-BB=	CISCO 1841 IP Broadband Feature Pack spare
CD18-EB=	CISCO 1841 ENTERPRISE BASE Feature Pack spare
CD18-ESK9=	CISCO 1841 ENTERPRISE SERVICES Feature Pack spare
CD18-IPB=	CISCO 1841 IP BASE Feature Pack spare
CD18-SPSK9=	CISCO 1841 SP SERVICES Feature Pack spare
184-SW-SPARECD	Cisco 184X Series Software Spare CD

Cisco 1800 Series IOS Upgrade Licenses

FL18-AISK9-AESK9=	Cisco 1841 Adv IP Ser to Adv Ent Ser Upgrade SW feature lic spare
FL18-ASK9-AISK9=	Cisco 1841 Adv Sec to Adv IP Ser Upgrade SW feature lic spare
FL18-EB-ESK9=	Cisco 1841 Ent Base to Ent Ser Upgrade SW feature lic spare
FL18-ESK9-AESK9=	Cisco 1841 Ent Ser to Adv Ent Ser Upgrade SW feature lic spare
FL18-SPSK9-AISK9=	Cisco 1841 SP Ser to Adv IP Ser Upgrade SW feature lic spare
FL18-SPSK9-ESK9=	Cisco 1841 SP Ser to Ent Ser Upgrade SW feature lic spare
FL18-IPB-ASK9=	Cisco 1800 IP BASE to Adv Sec Upgrade SW feature lic spare
FL18-IPB-EB=	Cisco 1800 IP BASE to Ent Base Upgrade SW feature lic spare
FL18-CB=	Corvil Bandwidth Feature License for 1800 Series spare

Cisco 1800 (Fixed) Series DRAM Memory Options

MEM180X-128U256D	128 to 256MB SODIMM DRAM factory upgrade for the Cisco 180X
MEM181X-128U256D	128 to 256MB SODIMM DRAM factory upgrade for the Cisco 181X
MEM180X-128D=	128MB SODIMM DRAM for the Cisco 1841 spare
MEM181X-128D=	128MB SODIMM DRAM for the Cisco 181X spare

Cisco 1800 (Fixed) Series PoE Options

POE-180X=	802.3af PoE Module, 80W Power Supply and Cable spare
POE-181X=	802.3af PoE Module, 80W Power Supply and Cable spare

Cisco 1800 (Fixed) Series Rack Mount Kit

ACS-1800-RM-19=	19 inch Rack Mount Kit for Cisco 180X / 181X spare
-----------------	--

Cisco 1800 (fixed & mod)-802.11 a/g Antennae Options-Spares

AIR-ANTM2050D-R=	2.2dBi/2.4Ghz,5.0dBi/5GHz DualBand Dipole Antenna spare
AIR-ANTM4050V-R=	4.0dBi/2.4Ghz,5.0 dBi/5GHz Dual Band Ceiling Mount Antenna spare
AIR-ANTM5560P-R=	5.5 dBi/2.4Ghz,6.0 dBi/5GHz Dual Band Wall Mount Antenna spare

1. This is only a small subset of all parts available via URL listed under "For More Information." Some parts have restricted access or are not available through distribution channels. Resellers: For latest part number and pricing info, see the **Distribution Product Reference Guide** at: <http://www.cisco.com/dprg> (limited country availability).

For More Information

See the Cisco 1800 Series Web site: <http://www.cisco.com/go/ISR>

Cisco 2800 Series



The Cisco 2800 Series Integrated Services Routers offer performance improvements, increased security and voice performance, new embedded service options, and increased slot performance and density. It maintains support for most existing interface cards and modules available for the Cisco 1700 Series and Cisco 2600 Series routers. Comprised of four platforms: the Cisco 2801, the Cisco 2811, the Cisco 2821, and the Cisco 2851 router, the Cisco 2800 Series features the ability to deliver multiple high-quality simultaneous services at wire speed at up to multiple T1/E1/xDSL connections. Wireless LAN Controller Modules are a component of the Cisco Unified Wireless Network.

When to Sell

Sell This Product *When a Customer Needs These Features*

Cisco 2800

- Customer needs a solution that has a lower total cost of ownership compared to multiple separate devices
- Performance and densities for concurrent data, security, voice, and advanced services up to multiple T1/E1/xDSL connections
- VPN connections, or plan to migrate to them over time
- Integrated security services which enable network device protection, threat defense, secure connectivity, and endpoint protection and control
- Secure integrated call processing, voice mail, flexible telephony interfaces, redundancy for centralized call processing, or robust DSP support, including local conferencing and transcoding
- Wireless support via integrated IEEE 802.11 a/b/g standalone access point HWICs
- Integrated Layer 2 switching capability in densities from 4 port to 48 port and the ability to utilize Cisco StackWise connectivity.

Key Features

- **Modular architecture**—A wide variety of LAN and WAN options are available. Network interfaces can be upgraded in the field to accommodate future technologies; Several types of slots are available to add connectivity and services in the future on an “integrate-as-you-grow” basis
- **Embedded security hardware acceleration**—embedded hardware cryptography accelerators, which when combined with an optional Cisco IOS Software upgrade help enable WAN link security and VPN services
- **Integrated dual Fast Ethernet or Gigabit Ethernet ports**—Provides two 10/100 Ethernet ports on the Cisco 2801 and Cisco 2811 and two 10/100/1000 Ethernet ports on the Cisco 2821 and Cisco 2851
- **HWIC slots with enhanced functions** including wireless LAN access points; Dual AIM slots; Packet voice DSP module (PVDM) slots on motherboard
- **IP Telephony solutions** enable an all-in-one VoIP solution with Cisco Call Manager Express, telephony interfaces, and Cisco Unity Express for voice mail and auto-attendant functions
- **On board hardware-based encryption** for DES, 3DES, AES, and onboard slots for PVDMs, and they all include high-speed Ethernet interfaces
- **Support for an optional dedicated security AIM**
- **EzVPN** eases administration and management of point-to-point VPNs by pushing new security policies from a single headend to remote sites
- **DSP modules** deliver support for analog and digital voice, conferencing, transcoding, and secure Real-Time Transport Protocol (RTP) applications
- **Network Admission Control (NAC)**—A Cisco Self-Defending Network initiative seeks to dramatically improve the ability of networks to identify, prevent, and adapt to threats by allowing network access only to compliant and trusted endpoint devices
- **Optional integrated power supply** for distribution of PoE
- **Real-time clock support**

Competitive Products

- Juniper: J Series
- 3Com: SuperStack II NETBuilder SI and Pathbuilder S400, 5000 & 6000 Series
- Intel/Shiva: LanRover Family
- Motorola: Vanguard 645x/643x
- Nortel/Bay: Advanced Remote Node (ARN), Passport 4400 series
- Tasman: 2004, 1400
- Huawei: AR2800

Specifications

Feature	Cisco 2801	Cisco 2811	Cisco 2821	Cisco 2851
Fixed USB 1.1 ports	1	2	Same As Cisco 2811	Same As Cisco 2811
Onboard LAN ports	2 - 10/100	Same As Cisco 2801	2 - 10/100/1000	Same As Cisco 2821
Onboard AIM (internal) slot	2	Same As Cisco 2801	Same As Cisco 2801	Same As Cisco 2801
Interface card slots	4 slots; 2 slots support HWIC, WIC, VIC, or VWIC type modules 1 slot supports WIC, VIC, or VWIC type modules 1 slot supports VIC or VWIC type modules	4 slots, each slot can support HWIC, WIC, VIC, or VWIC type modules		
Network-module slot	No	1 slot, supports NM and NME type modules	1 slot, supports NM, NME and NME-X type modules	1 slot, supports NM, NME, NME-X, and NME-XD type modules
Extension Voice Module Slot	0	Same As Cisco 2801	1	Same As Cisco 2821
PVDM (DSP) slots on motherboard	2	Same As Cisco 2801	3	Same As Cisco 2821
Integrated hardware-based encryption	Yes	Same As Cisco 2801	Same As Cisco 2801	Same As Cisco 2801
Optional PoE	Yes, requires AC-IP system power supply	Same As Cisco 2801	Same As Cisco 2801	Same As Cisco 2801
Console port (up to 115.2 kbps)	1	Same As Cisco 2801	Same As Cisco 2801	Same As Cisco 2801
Auxiliary port (up to 115.2 kbps)	1	Same As Cisco 2801	Same As Cisco 2801	Same As Cisco 2801
Minimum Cisco IOS Software release	12.3(8)T4	Same As Cisco 2801	Same As Cisco 2801	Same As Cisco 2801
Rack mounting	Yes, 19-inch	Yes, 19- and 23-in. options	Same As Cisco 2811	Same As Cisco 2811
Wall mounting	No	Yes	Same As Cisco 2801	Same As Cisco 2801
AC input voltage	100 to 240 VAC	Same As Cisco 2801	Same As Cisco 2801	Same As Cisco 2801
AC input frequency	47-63 Hz	Same As Cisco 2801	Same As Cisco 2801	Same As Cisco 2801
AC input current	2A (110V); 1A (230V)	Same As Cisco 2801	3A (110V); 2A (230V)	Same As Cisco 2821
AC input surge current	50A maximum, one cycle (-48V power included)	Same As Cisco 2801	Same As Cisco 2801	Same As Cisco 2801
AC-IP max in-line power distribution	120W	160W	240W	360W
AC-IP input current	4A (110V); 2A (230V)	Same As Cisco 2801	8A (110V); 4A (230V)	Same As Cisco 2821
AC-IP input surge current	50A maximum, one cycle (-48V power included)	Same As Cisco 2801	Same As Cisco 2801	Same As Cisco 2801
DC input voltage	No DC Power Option available	24 to 60 VDC, autorunning positive or negative	Same As Cisco 2811	Same As Cisco 2811
DC input current	No DC Power Option available	8A (24V) 3A (60V) Startup current 5A<10 ms	12A (24V) 5A (60V) Startup current 50A<10 ms	Same As Cisco 2821
Power dissipation— AC 150W (511 BTU/hr.) without PoE support		170W (580 BTU/hr.)	280W (955 BTU/hr.)	Same As Cisco 2821
Power dissipation— AC 180W (612 BTU/hr.) with PoE-IP phones		160W (546 BTU/hr.)	240W (819 BTU/hr.)	Same As Cisco 2821
Power dissipation— DC Not applicable		180W (614 BTU/hr.)	300W (1024 BTU/hr.)	Same As Cisco 2821
Redundant Power Support (RPS)	No	External only, connector for RPS provided by default	Same As Cisco 2811	Same As Cisco 2811
Recommended RPS unit	No RPS option	Cisco RPS-675 Redundant Power System	Same As Cisco 2811	Same As Cisco 2811

Chapter 1

Feature	Cisco 2801	Cisco 2811	Cisco 2821	Cisco 2851
Operating temp	32 to 104°F; (0 to 40°C)	Same As Cisco 2801	Same As Cisco 2801	Same As Cisco 2801
Operating humidity	10 to 85% non condensing	5 to 95%, non condensing	Same As Cisco 2811	Same As Cisco 2811
Non operating temp	N/A	-4 to 149°F (-20 to 65°C)	Same As Cisco 2811	Same As Cisco 2811
Dimensions (H x W x D)	1.72 x 17.5 x 16.5 in. (43.7 x 445 x 419 mm.)	1.75 x 17.25 x 16.4 in. (44.5 x 438.2 x 416.6 mm.)	3.5 x 17.25 x 16.4 in. (88.9 x 438.2 x 416.6 mm.)	Same As Cisco 2821
Rack height	1 rack unit (1-RU)	1 rack unit (1-RU)	2-RU	Same As Cisco 2821
Weight (configured)	13.7 lb. (6.2 kg)	14 lb. (6.4 kg)	25 lb. (11.4 kg)	Same As Cisco 2821
Noise level (min/max)	39 dBA for normal operating temperature (<90°F/32.2°C) 53.5 dBA (@ maximum fan speed)	47 dBA for normal operating temperature (<90°F/32.2°C) 57 dBA (@ maximum fan speed)	44 dBA for normal operating temperature (<90°F/32.2°C) 53 dBA (@ maximum fan speed)	Same As Cisco 2821
Safety	UL 60950 CAN/CSA C22.2 No. 60950 IEC 60950 EN 60950-1 AS/NZS 60950	Same As Cisco 2801	Same As Cisco 2801	Same As Cisco 2801
Immunity	EN300386 EN55024/CISPR24 EN50082-1 EN61000-6-2	Same As Cisco 2801	Same As Cisco 2801	Same As Cisco 2801
EMC	FCC Part 15: ICES-003 Class A; EN55022 Class A; CISPR22 Class A; AS/NZS 3548 Class A; VCCI Class A EN 300386; EN61000-3-3; EN61000-3-2			
TELCOM	Telecom compliance standards depend upon country and interface type. Interfaces comply with FCC Part 68, CS-03, JATE Technical Conditions, European Directive 99/5/EC and relevant TBRs. See the datasheet for the specific interface card.			

Selected Part Numbers and Ordering Information¹

Cisco 2800 Series Router

CISCO2801	Integrated services router with AC power, 2FE, 4 Interface Card Slots, 2 PVDM slots, 2 AIMs, and Cisco IOS IP Base Software
CISCO2801-AC-IP	Integrated services router with AC power including Inline power distribution capability, 2FE, 4 Interface Card Slots, 2 PVDM slots, 2 AIMs, and Cisco IOS IP Base Software
CISCO2811	Integrated services router with AC power, 2FE, 1 NME, 4 HWICs, 2 PVDM slots, 2 AIMs, and Cisco IOS IP Base Software
CISCO2811-16TS	Cisco 2811 With HWIC-16A Terminal Server Bundle
CISCO2811-AC-IP	Integrated services router with AC power including Inline power distribution capability, 2FE, 1 NME, 4 HWICs, 2 PVDM slots, 2 AIMs, and Cisco IOS IP Base Software
CISCO2811-DC	Integrated services router with DC power, 2FE, 1 NME, 4 HWICs, 2 PVDM slots, 2 AIMs, and Cisco IOS IP Base Software
CISCO2821	Integrated services router with AC power, 2GE, 1 NME-X, 1 EVM, 4 HWICs, 2 PVDM slots, 2 AIMs, and Cisco IOS IP Base Software
CISCO2821-AC-IP	Integrated services router with AC power including inline power distribution capability, 2GE, 1 NME-X, 1 EVM, 4 HWICs, 3 PVDM slots, 2 AIMs, and Cisco IOS IP Base Software
CISCO2821-DC	Integrated services router with DC power, 2GE, 1 NME-X, 1 EVM, 4 HWICs, 3 PVDM slots, 2 AIMs, and Cisco IOS IP Base Software
CISCO2851	Dual Gigabit Ethernet integrated services router with AC power, 2GE, 1 NME-XD, 1 EVM, 4 HWICs, 3 PVDM slots, 2 AIMs, and Cisco IOS IP Base Software
CISCO2851-AC-IP	Integrated services router with AC power including inline power distribution capability, 2GE, 1 NME-XD, 1 EVM, 4 HWICs, 3 PVDM slots, 2 AIMs, and Cisco IOS IP Base Software
CISCO2851-DC	Integrated services router with DC power, 2GE, 1 NME-XD, 1 EVM, 4 HWICs, 3 PVDM slots, 2 AIMs, and Cisco IOS IP Base Software

Cisco 2800 Series Security Bundles

CISCO2801-SEC/K9	2801 Security Bundle, Adv Security, 64F/256D
CISCO2801-HSEC/K9	2801 Bundle w/AIM-VPN/SSL-2, Adv. IP Serv, 10 SSL lic, 64F/256D
CISCO2811-SEC/K9	2811 Security Bundle, Adv Security, 64F/256D
CISCO2811-HSEC/K9	2811 Bundle w/AIM-VPN/SSL-2, Adv. IP Serv, 10 SSL lic, 64F/256D
CISCO2821-SEC/K9	2821 Security Bundle, Adv Security, 64F/256D
CISCO2821-HSEC/K9	2821 Bundle w/AIM-VPN/SSL-2, Adv. IP Serv, 10 SSL lic, 64F/256D
CISCO2851-SEC/K9	2851 Security Bundle, Adv Security, 64F/256D
CISCO2851-HSEC/K9	2851 Bundle w/AIM-VPN/SSL-2, Adv. IP Serv, 10 SSL lic, 64F/256D

Cisco 2800 Series Voice Bundles

CISCO2801-V/K9	2801 Voice Bundle, PVDM2-8, SP Serv, 64F/256D
CISCO2801-CCME/K9	2801 Voice Bundle w/ PVDM2-8, FL-CCME-24, SP Serv, 64F/256D
CISCO2801-SRST/K9	2801 Voice Bundle w/ PVDM2-8, FL-SRST-24, SP Serv, 64F/256D
CISCO2811-V/K9	2811 Voice Bundle, PVDM2-16, SP Serv, 64F/256D
CISCO2811-CCME/K9	2811 Voice Bundle w/ PVDM2-16, FL-CCME-36, SP Serv, 64F/256D
CISCO2811-SRST/K9	2811 Voice Bundle w/ PVDM2-16, FL-SRST-36, SP Serv, 64F/256D
CISCO2821-V/K9	2821 Voice Bundle, PVDM2-32, SP Serv, 64F/256D

CISCO2821-CCME/K9	2821 Voice Bundle w/ PVDM2-32,FL-CCME-48,SP Serv,64F/256D
CISCO2821-SRST/K9	2821 Voice Bundle w/ PVDM2-32,FL-SRST-48,SP Serv,64F/256D
CISCO2851-V/K9	2851 Voice Bundle,PVDM2-48,SP Serv,64F/256D
CISCO2851-CCME/K9	2851 Voice Bundle w/ PVDM2-48,FL-CCME-96,SP Serv,64F/256D
CISCO2851-SRST/K9	2851 Voice Bundle w/ PVDM2-48,FL-SRST-96,SP Serv,64F/256D
<i>Cisco 2800 Series Secure Voice Bundles</i>	
C2801-VSEC-CCME/K9	2801 VSEC Bundle w/PVDM2-8,FL-CCME-24,Adv IP Serv,64F/256D
C2801-VSEC-SRST/K9	2801 VSEC Bundle w/PVDM2-8,FL-SRST-24,Adv IP Serv,64F/256D
C2811-VSEC-CCME/K9	2811 VSEC Bundle w/PVDM2-16,FL-CCME-36,Adv IP Serv,64F/256D
C2811-VSEC-SRST/K9	2811 VSEC Bundle w/PVDM2-16,FL-SRST-36,Adv IP Serv,64F/256D
C2821-VSEC-CCME/K9	2821 VSEC Bundle w/PVDM2-32,FL-CCME-48,Adv IP Serv,64F/256D
C2821-VSEC-SRST/K9	2821 VSEC Bundle w/PVDM2-32,FL-SRST-48,Adv IP Serv,64F/256D
C2851-VSEC-CCME/K9	2851 VSEC Bundle w/PVDM2-48,FL-CCME-96,Adv IP Serv,64F/256D
C2851-VSEC-SRST/K9	2851 VSEC Bundle w/PVDM2-48,FL-SRST-96,Adv IP Serv,64F/256D
C2801-VSEC/K9	2801 Voice Security Bundle,PVDM2-8,Adv IP Serv,64F/256D
C2811-VSEC/K9	2811 Voice Security Bundle,PVDM2-16,Adv IP Serv,64F/256D
C2821-VSEC/K9	2821 Voice Security Bundle,PVDM2-32,Adv IP Serv,64F/256D
C2851-VSEC/K9	2851 Voice Security Bundle,PVDM2-48,Adv IP Serv,64F/256D
CISCO2801-V3PN/K9	2801 V3PN bdl,AIM-VPN,PVDM2-8,FL-CCME-24,Adv IPServ,64F/256D
CISCO2811-V3PN/K9	2811 V3PN bdl w/AIM-VPN,PVDM2-16,CCME-36,AdvIPServ,64F/256D
CISCO2821-V3PN/K9	2821 V3PN bdl w/AIM-VPN,PVDM2-32,CCME-48,AdvIPServ,64F/256D
CISCO2851-V3PN/K9	2851 V3PN bdl w/AIM-VPN,PVDM2-48,CCME-72,AdvIPServ,64F/256D
CISCO-FIPS-KIT=	Tamper Proof for 80/18/28/38/72/73 Routers and ASA
C2821-BIAB-24/K9	CISCO2821-AC-IP24-port switch,AIM-CUE,PVDM2-32,AISK9
<i>Cisco 2851/2800 WAN Optimization Bundles</i>	
CISCO2821-AA/K9	Cisco 2821 Basic Wan Optimization Bundle
C2811-WAE-302/K9	2811, NME-WAE-302-K9,WAAS Trans,IPBase,64F/256D
CISCO2811-WAE/K9	2811, NME-WAE-502-K9,WAAS Trans,IPBase,64F/256D
CISCO2821-WAE/K9	2821, NME-WAE-502/K9,WAAS Trans,IPBase,128F/256D
CISCO2851-WAE/K9	2851, NME-WAE-502-K9,WAAS Trans,IPBase,128F/256D
CISCO2821-SAA/K9	Cisco 2821 Secure Wan Optimization Bundle
CISCO2851-AA/K9	Cisco 2851 Basic Wan Optimization Bundle
CISCO2851-SAA/K9	Cisco 2851 Secure Wan Optimization Bundle
<i>Ethernet Switching Network Modules</i>	
NME-16ES-1G	16-port EtherSwitch Service Mod 10/100T + 1 GE,IP Base
NME-16ES-1G-P	16-port EtherSwitch Service Mod 10/100T POE + 1 GE,IP Base
NME-X-23ES-1G	23-port EtherSwitch Service Mod 10/100T + 1 GE POE, IP Base
NME-X-23ES-1G-P	23-port EtherSwitch Service Mod 10/100T POE + 1 GE POE, IP Base
NM-16ESW	16-port 10/100 Cisco EtherSwitch Network Module
NM-16ESW-1GIG	16-port 10/100 Cisco EtherSwitch Network Module with 1 Gigabit Ethernet (1000BASE-T) port
NM-16ESW-PWR	16-port 10/100 Cisco EtherSwitch Network Module with in-line power support
NM-16ESW-PWR-1GIG	16-port 10/100 Cisco EtherSwitch Network Module with in-line power and Gigabit Ethernet
NME-XD-24ES-1S-P	24-port EtherSwitch Service Mod 10/100 w/ POE + 1 SFP + Stackwise interfaces
NME-XD-48ES-2S-P	48-port EtherSwitch Service Mod 10/100 w/ POE + 2 SFP
<i>Serial Connectivity Network Modules</i>	
NM-1T3/E3	1-port clear-channel T3/E3 network module
NM-1HSSI	1-port High-Speed Serial Interface (HSSI) network module
NM-4A/S	4-port asynchronous/synchronous serial network module
NM-8A/S	8-port asynchronous/synchronous serial network module
NM-16A/S	16-port asynchronous/synchronous serial network module
NM-16A	16-port asynchronous serial network module
NM-32A	32-port asynchronous serial network module
<i>Channelized T1/E1 and ISDN Network Modules</i>	
NM-1CE1T1-PRI	1-port Channelized E1/T1/ISDN PRI network module
NM-2CE1T1-PRI	2-port Channelized E1/T1/ISDN PRI network module
NM-4B-S/T	4-port ISDN BRI network module (S/T interface)
NM-4B-U	4-port ISDN BRI network module with integrated Network Termination 1 (NT1) (U interface)
NM-8B-S/T	8-port ISDN BRI network module (S/T interface)
NM-8B-U	8-port ISDN BRI network module with integrated NT1 (U interface)
<i>ATM Network Modules</i>	
NM-1A-T3	1-port DS-3 ATM network module
NM-1A-E3	1-port E3 ATM network module
<i>Analog Dialup and Remote Access Network Modules</i>	
NM-8AM-V2	8-port analog modem network module with v.92
NM-16AM-V2	16-port analog modem network module with v.92

Voice Network Modules and Accessories

NM-HD-1V	1-slot IP Communications voice and fax network module
NM-HD-2V	2-slot IP Communications voice and fax network module
NM-HD-2VE	2-slot IP Communications enhanced voice and fax network module
NM-HDA-4FXS	High-density analog voice and fax network module with 4 FXS slots
NM-HDV2	IP Communications high-density voice and fax network module
NM-HDV2-1T1/E1	1-port T1/E1 IP Communications high-density voice and fax network module
NM-HDV2-2T1/E1	2-port T1/E1 IP Communications high-density voice and fax network module
NM-HDV=	High-density voice and fax network module (single VIC slot)

Application Network Modules

NME-WAE-302-K9	WAAS Network Module For 2800, 3800 ISR - 512 MB RAM, 80GB HDD
NME-WAE-502-K9	WAAS Network Module For 2800, 3800 ISR - 1GB RAM, 120GB HDD
NM-CE-BP-40G-K9	Cisco Content Engine Network Module, basic performance, 40-GB IDE hard disk
NM-CE-BP-80G-K9	Cisco Content Engine Network Module, basic performance, 80-GB IDE hard disk
NM-CIDS-K9	Cisco IDS Network Module
NM-CUE	Cisco Unity Express Voice-Mail Network Module; price includes 12-mailbox license
NM-CUE-EC	Cisco Unity Express Network Module Enhanced Capacity; price includes 12-mailbox license
NM-NAM	Cisco series Network Analysis Module Enhanced Network Module
NME-NAM-80S	Cisco Branch Routers Series Network Analysis Module
NM-AON-K9	Cisco 2800/3800 Series AON Enhanced Network Module
NM-AIR-WLC6-K9	6-AP WLAN Controller NM for Cisco 2800 and 3800 Series
NME-AIR-WLC8-K9	8-AP WLAN Controller NM for Cisco 2800 and 3800 Series
NME-AIR-WLC12-K9	12-AP WLAN Controller NM for Cisco 2800 and 3800 Series

Wireless LAN Controller Modules

NM-AIR-WLC6-K9	WLAN Controller Module for up to 6 lightweight access points 2800/3800 ISR
NME-AIR-WLC8-K9	WLAN Controller Module for up to 8 lightweight access points 2800/3800 ISR
NME-AIR-WLC12-K9	WLAN Controller Module for up to 12 lightweight access points 2800/3800 ISR

Circuit Emulation Service over IP (CESoIP) Network Modules

NM-CEM-4SER	4-port serial CESoIP network module
NM-CEM-4T1E1	4-port T1/E1 CESoIP network module

Extension Voice Modules

EVM-HD-8FXS/DID	High-density voice and fax extension module - 8 FXS or DID
-----------------	--

Ethernet Switching HWICs

HWIC-4ESW	4-port single-wide 10/100BASE-T Ethernet switch HWIC
HWIC-D-9ESW	9-port double-wide 10/100BASE-T Ethernet switch HWIC
HWIC-4ESW-POE	4-port Ethernet switch HWIC, PoE capable
HWIC-D-9-ESW-POE	9-port Ethernet switch HWIC, PoE capable

Ethernet HWICs

HWIC-1FE	1-port 10/100 Routed Port HWIC
HWIC-1GE-SFP	GigE High Speed WIC With One SFP Slot

Wireless LAN HWICs and Accessories

HWIC-3G-GSM	3GWWAN HWIC-HSDPA/UMTS/EDGE/GPRS-850/900/1800/1900/2100MHz
HWIC-3G-CDMA-V	3G WWAN HWIC-EVDO Rev A/Rel 0/1xRTT-800/1900MHz
HWIC-3G-CDMA-S	3G WWAN HWIC-EVDO Rev A/Rel 0/1xRTT-800/1900MHz
HWIC-AP-G-A	Cisco 802.11 B/G Access Point High Speed Wan Interface Card for the Americas (FCC configuration)
HWIC-AP-G-E	Cisco 802.11 B/G Access Point High Speed Wan Interface Card for Europe (ETSI configuration)
HWIC-AP-G-J	Cisco 802.11 B/G Access Point High Speed Wan Interface Card for Japan (TELEC configuration)
HWIC-AP-AG-B	Cisco 802.11 A/B/G Access Point High Speed Wan Interface Card for the Americas (FCC configuration)
HWIC-AP-AG-E	Cisco 802.11 A/B/G Access Point High Speed Wan Interface Card for Europe (ETSI configuration)
HWIC-AP-AG-P	Cisco 802.11 A/B/G Access Point High Speed Wan Interface Card for Japan (TELEC 5 GHz)
HWIC-AP-AG-N	Cisco 802.11 A/B/G Access Point High Speed Wan Interface Card for Japan (5Ghz Australia/NZ)
AIR-ANT4941	2.2 dBi Cisco Aironet 2.4 GHz Swivel mount dipole
AIR-ANT5959	2 dBi Cisco Aironet 2.4 GHz Diversity omni-directional ceiling mount patch
AIR-ANT1728	5.2dBi Cisco Aironet 2.4 GHz Omni-directional ceiling mount
AIR-ANTM2050D-R	(2.2 dBi Cisco 2.4 Ghz and 5.0 dBi 5 GHz) Dual band Swivel mount dipole antenna
AIR-ANTM5560P-R	(5.5 dBi Cisco 2.4 Ghz and 6.0 dBi 5 GHz) Dual band Wall-mount patch antenna
AIR-ANTM4050V-R	(4.0 dBi Cisco 2.4 Ghz and 5.0 dBi 5 GHz) Dual band Diversity Ceiling-mount omnidirectional antenna
AIR-CAB020LL-R	20-ft. (6m) low-loss cable with RP-TNC connectors
AIR-CAB050LL-R	50-ft. (15m) low-loss cable with RP-TNC connectors
AIR-CAB100ULL-R	100 ft. (30m) ultra-low-loss cable with RP-TNC connectors
AIR-CAB150ULL-R	150-ft. (46m) ultra-low-loss cable with RP-TNC connector
NM-1VSAT-GILAT	Cisco IP VSAT Satellite WAN Network Module

Wireless WAN HWIC

HWIC-3G-GSM	3G WirelessWAN HWIC supporting GPRS/EDGE/UMTS/HSDPA (Global SKU)
HWIC-3G-CDMA-V	3G WirelessWAN HWIC supporting 1xRTT, EVDO Rev A/Rel 0 (Verizon SKU)
HWIC-3G-CDMA-S	3G WirelessWAN HWIC supporting 1xRTT, EVDO Rev A/Rel 0 (Sprint SKU)

Serial WICs and HWICs

HWIC-4T	4-Port Serial HWIC
HWIC-4A/S	4-Port Async/Sync Serial HWIC
HWIC-8A/S-232	8-Port Async/Sync Serial HWIC, EIA-232
HWIC-8A	8-Port Async HWIC
HWIC-16A	16-Port Async HWIC
WIC-1T	1-port high-speed serial WIC
WIC-2T	2-port high-speed serial WIC
WIC-2A/S	2-port asynchronous/synchronous serial WIC

CSU/DSU WICs

WIC-1DSU-T1-V2	1-port T1/Fractional-T1 DSU/CSU WIC
WIC-1DSU-56K4	1-port 4-wire 56-/64-kbps CSU/DSU WIC

ISDN BRI WICs and HWICs

WIC-1B-U-V2	1-port ISDN BRI with integrated NT1 (U interface)
WIC-1B-S/T-V3	1-port ISDN BRI with S/T interface
HWIC-ADSL-B/ST	HWIC w/ADSLoPOTS and ISDN BRI ports
HWIC-ADSLI-B/ST	HWIC w/ADSLoISDN and ISDN BRI ports

DSL WICs and HWICs

WIC-1ADSL	1-port asymmetric DSL (ADSL) over basic-telephone-service WIC
WIC-1ADSL-DG	1-port ADSL over basic telephone service with dying-gasp WIC
WIC-1ADSL-I-DG	1-port ADSL over ISDN with dying-gasp WIC
HWIC-1ADSL	1-port ADSLoPOTS HWIC
HWIC-1ADSLI	1-port ADSLoISDN HWIC
HWIC-ADSL-B/ST	HWIC w/ADSLoPOTS and ISDN BRI ports
HWIC-ADSLI-B/ST	HWIC w/ADSLoISDN and ISDN BRI ports
HWIC-1ADSL-M	1 port ADSLoPOTS HWIC with Annex M mode capability
WIC-1SHDSL-V3	1-port G.shdsl WIC (two or four wire)
HWIC-2SHDSL	2-pair G.SHDSL HWIC
HWIC-4SHDSL	4-pair G.SHDSL HWIC w IMA
HWIC-CABLE-D-2	1-Port DOCSIS 2.0 Cable Modem HWIC
HWIC-CABLE-E/J-2	1-Port Euro DOCSIS 2.0 Cable HWIC

Analog Modem WICs

WIC-1AM-V2	1-port analog modem WIC
WIC-2AM-V2	2-port analog modem WIC

T1, E1, and G.703 Multiflex Trunk Voice Cards and WICs

VVIC2-1MFT-T1/E1=	1-Port 2nd Gen Multiflex Trunk Voice/WAN Int. Card - T1/E1 spare
VVIC2-2MFT-T1/E1=	2-Port 2nd Gen Multiflex Trunk Voice/WAN Int. Card - T1/E1 spare
VVIC2-1MFT-G703=	1-Port 2nd Gen Multiflex Trunk Voice/WAN Int. Card - G.703 spare
VVIC2-2MFT-G703=	2-Port 2nd Gen Multiflex Trunk Voice/WAN Int. Card - G.703 spare
EC-MFT-32=	32-Channel Multiflex Trunk Dedicated ECAN Module
EC-MFT-64=	64-Channel Multiflex Trunk Dedicated ECAN Module
VVIC-1MFT-T1	1-port RJ-48 multiflex trunk - T1
VVIC-2MFT-T1	2-port RJ-48 multiflex trunk - T1
VVIC-2MFT-T1-DI	2-port RJ-48 multiflex trunk - T1 with drop and insert
VVIC-1MFT-E1	1-port RJ-48 multiflex trunk - E1
VVIC-2MFT-E1	2-Port RJ-48 multiflex trunk - E1
VVIC-2MFT-E1-DI	2-Port RJ-48 multiflex trunk - E1 with drop and insert
VVIC-1MFT-G703	1-port RJ-48 multiflex trunk - G.703
VVIC-2MFT-G703	2-port RJ-48 multiflex trunk - G.703
VVIC-2T1/E1-RAN	2-Port RJ-48 T1/E1 Protection Switching RAN/ITP/SLT WIC

VICs

VIC-2DID	2-port DID voice and fax interface card
VIC-4FXS/DID	4-port FXS or DID VIC
VIC2-2FXS	2-port VIC - FXS
VIC2-2FXO	2-port VIC - FXO (universal)
VIC2-4FXO	4-port VIC - FXO (universal)
VIC2-2E/M	2-port VIC - E&M
VIC2-2BRI-NT/TE	2-port VIC card - BRI (NT and TE)

AIMs

AIM-ATM	High-performance ATM SAR AIM
AIM-ATM-4T1=	AIM-ATM with 2 VVIC-2MFT-T1 spare
AIM-ATM-4E1	AIM-ATM with 2 VVIC-2MFT-E1
AIM-CUE	Cisco Unity Express Voice-Mail AIM
AIM-VPN/EPII-PLUS	Enhanced-performance DES, 3DES, AES, and compression VPN encryption AIM
AIM-VPN/SSL-2	DES/3DES/AES/SSL VPN Encryption/Compression

PVDM Support on Motherboard Slots

PVDM2-8	8-channel fax and voice DSP module
PVDM2-16	16-channel fax and voice DSP module
PVDM2-32	32-channel fax and voice DSP module
PVDM2-48	48-channel fax and voice DSP module
PVDM2-64	64-channel fax and voice DSP module
PVDM2-12DM	12 Port Digital Modem Module
PVDM2-24DM	24 Port Digital Modem Module
PVDM2-36DM	36 Port Digital Modem Module

1. This is only a small subset of all parts available via URL listed under "For More Information". Some parts have restricted access or are not available through distribution channels. Resellers: For latest part number and pricing info, see the *Distribution Product Reference Guide* at: <http://www.cisco.com/dprg> (limited country availability).

For More Information

See the Cisco 2800 Series Web site: <http://www.cisco.com/go/2800>

Cisco 3800 Series



The Cisco 3800 Series is the flagship platform in a portfolio of next-generation routers that integrate advanced technologies, adaptive services, wireless support, and secure enterprise communications.

These new routers offer the performance and reliable packet delivery necessary to efficiently deliver mission-critical network capabilities, including real-time applications such as VoIP, business video, and collaborative communications. Architectural enhancements include embedded security processing, significant platform performance and memory improvements, and new high-density interface types. Wireless LAN Controller Modules are a component of the Cisco Unified Wireless Network.

When to Sell

Sell this Product When a Customer Needs These Features

Cisco 3825

- Medium- to large-sized branch offices and businesses with the ability to support concurrent data, security, voice, and advanced services at wire speed up to ½ T3/E3 rates
- Two onboard 10/100/1000, 4 HWIC slots and one SFP port
- Low density (up to 88 ports), integrated 10/100 switching; up to 360W Cisco Inline Power or PoE
- Integrated onboard security acceleration for IPSec for improved IPSec performance and an integral part of Cisco Self Defending Network, which enable network device protection, threat defense, secure connectivity, and endpoint protection and control
- Up to four Integrated PVDMs slots, industry-leading call processing and autoattendant solutions, and high-density voice cards and modules that speed IP Communications and give customers a choice of telephony interface devices

Cisco 3845

- Same features as above plus:
- Medium- to large-sized branch offices and businesses providing the highest performance and densities for concurrent data, security, voice, and advanced services with the ability to run at wire-speed up to T3/E3
 - 4 Enhanced Network Module slots
 - Up to 112 ports integrated 10/100 switching; up to 360W redundant Cisco in-line power or PoE
 - Higher availability and resiliency, such as redundant system and inline power, online insertion and removable (OIR) components, and field replaceable components such as the cpu motherboard and fan assembly

Key Features

- Cisco IOS Software Firewall—Stateful, application-based filtering (context-based access control); Per-user authentication and authorization; Real-time alerts; Transparent firewall; IPv6 firewall
- VPN—Data Encryption Standard (DES), Triple DES (3DES), and Advanced Encryption Standard (AES) 128, 192, and 256 cryptology support; Embedded hardware-based VPN acceleration on the motherboard; Support for optional higher-performance AIM-based security acceleration with Layer 3 compression; Support for up to 1800 tunnels with VPN Module; Cisco Easy VPN remote and server support; DMVPN
- Multiprotocol Label Switching (MPLS) VPN support—Specific provider edge capabilities; Virtual routing and forwarding (VRF) firewall and VRF IPSec
- Onboard USB 1.1 port(s)—Future support for secure token and Flash memory

- IPS—More than 700 IPS signatures supported in Cisco IOS Software, with the ability to load and enable selected IPS signatures; More than 1000 IPS signatures with optional high-performance IDS Network Module
- URL filtering—Onboard with an optional content-engine network module; Local URL filtering in Cisco IOS Software based on external server
- Cisco Router and SDM—Comes standard on all Cisco 3800 Series routers
- IP phone support—Optional integrated power supply with inline power; 802.3af support—360W of inline power
- Analog voice support—Up to 88 FXS and 56 FXO ports; Digital voice support—Up to 720 calls; Packet voice digital signal processor (DSP) module (PVDM) slots on motherboard—4 PVDM slots on motherboard; Local conferencing and transcoding;
- Cisco CME—Up to 240 phones; SRST—Up to 720 phones
- Voice mail—Up to a 120 mailboxes using Cisco Unity Express network module
- Voice interfaces—FXS, FXO, Direct Inward Dial (DID), E&M, Centralized Automated Message Accounting (CAMA), BRI, T1, E1, J1, Primary Rate Interface (PRI), Q.SIG, channel associated signaling (CAS)

Specifications

Feature	Cisco 3825	Cisco 3845
Network Module Slots	2	4
Advanced Integration Module (AIM) Slots	2	Same As Cisco 3825
High speed WAN Interface Card (HWIC) Slots	4	Same As Cisco 3825
10/100/1000 GE Ports	2	Same As Cisco 3825
Small Form Pluggable (SFP) ports	1	Same As Cisco 3825
Onboard PVDM slots	4	Same As Cisco 3825
WAN Network Modules	Yes	Same As Cisco 3825
ATM AIM Modules	Yes	Same As Cisco 3825
Voice/Fax Network Modules	Yes	Same As Cisco 3825
WAN Interface Card (WIC) Modules	Yes	Same As Cisco 3825
Multiflex Voice/WAN Interface Cards	Yes	Same As Cisco 3825
Voice Interface Card (VIC) Modules	Yes	Same As Cisco 3825
Modem Modules	Yes	Same As Cisco 3825
EtherSwitch Modules	Yes, HWIC and Network Modules	Same As Cisco 3825
Performance with Services	Up to 14 T1/E1s	Up to T3
VPN/Security Advanced Integration Modules (AIM)	Yes, AIM-VPN/EPII-PLUS	Yes, AIM-VPN/EPII-PLUS
Content Engine Network Modules	Yes	Same As Cisco 3825
Flash Memory (External)	64 MB (default) -256 MB (optional)	Same As Cisco 3825
DRAM Memory	256 MB (default) - 1024 MB (max)	Same As Cisco 3825
Power Supply	AC, AC +POE, DC, external redundant AC	AC, DC, internal redundant AC + POE
Dimensions (H x W x D)	3.5 x 17.1 x 14.7 in.	5.25 x 17.25 x 16 in.

Selected Part Numbers and Ordering Information¹

Cisco 3800 Series Integrated Services Routers

CISCO3825	Cisco 3825 Integrated Services Router with 2 Gigabit Ethernet, 1 SFP, 2 NME, 4 HWIC, 2 AIM, Cisco IOS IP Base software, and AC power
CISCO3825-AC-IP	Cisco 3825 Integrated Services Router with 2 Gigabit Ethernet, 1 SFP, 2 NME, 4 HWIC, 2 AIM, Cisco IOS IP Base software, AC Power, and PoE
CISCO3825-DC	Cisco 3825 Integrated Services Router with 2 Gigabit Ethernet, 1 SFP, 2 NME, 4 HWIC, 2 AIM, Cisco IOS IP Base software, and DC power
CISCO3845	Cisco 3845 Integrated Services Router with 2 Gigabit Ethernet, 1 SFP, 4 NME, 4 HWIC, 2 AIM, Cisco IOS IP Base software, and AC power
CISCO3845-AC-IP	Cisco 3845 Integrated Services Router with 2 Gigabit Ethernet, 1 SFP, 4 NME, 4 HWIC, 2 AIM, Cisco IOS IP Base software, AC Power, and PoE
CISCO3845-DC	Cisco 3845 Integrated Services Router with 2 Gigabit Ethernet, 1 SFP, 2 NME, 4 HWIC, 2 AIM, Cisco IOS IP Base software, and DC power

Chapter 1

Cisco 3800 Series WAN Optimization Bundles

CISCO3825-AA/K9	Cisco 3825 WAN Optimization Bundle, NM-CE-BP-80G-K9, AIM-COMPR4, IP Base, 64MB Flash, 256MB DRAM
CISCO3825-SAA/K9	Cisco 3825 WAN Optimization Bundle, NM-CE-BP-80G-K9, AIM-COMPR4, AIM-VPN/EPII-PLUS, IP Base, 64MB Flash, 256MB DRAM
CISCO3845-AA/K9	Cisco 3845 WAN Optimization Bundle, NM-CE-BP-80G-K9, AIM-COMPR4, IP Base, 64MB Flash, 256MB DRAM
CISCO3845-SAA/K9	Cisco 3845 WAN Optimization Bundle, NM-CE-BP-80G-K9, AIM-COMPR4, AIM-VPN/HPII-PLUS, IP Base, 64MB Flash, 256MB DRAM

Cisco 3800 Series Secure Voice Bundles

CISCO3845-V3PN/K9	Cisco 3845 V3PN Bundle with IOS Advanced IP Services, PVDM2-64, AIM-VPN/HPII-PLUS, FL-CCME (240 users), 64 MB Flash/256 MB DRAM
CISCO3825-V3PN/K9	Cisco 3825 V3PN Bundle with IOS Advanced IP Services, PVDM2-64, AIM-VPN/EPII-PLUS, FL-CCME (168 users), 128 MB Flash/512 MB DRAM
C3845-VSEC/K9	3845 Voice Security Bundle, PVDM2-64, Adv IP Services, 128MB Flash/512MB DRAM
C3825-VSEC/K9	3825 Voice Security Bundle, PVDM2-64, Adv IP Services, 128MB Flash/512MB DRAM
C3845-VSEC-CCME/K9	3845 VSEC Bundle, PVDM2-64, FL-CCME-240, Adv IP Services, 128MB Flash/512MB DRAM
C3825-VSEC-CCME/K9	3825 VSEC Bundle, PVDM2-64, FL-CCME-168, Adv IP Services, 128MB Flash/512MB DRAM
C3845-VSEC-SRST/K9	3845 VSEC Bundle, PVDM2-64, FL-SRST-240, Adv IP Services, 128MB Flash/512MB DRAM
C3825-VSEC-SRST/K9	3825 VSEC Bundle, PVDM2-64, FL-SRST-168, Adv IP Services, 128MB Flash/512MB DRAM
C3825-BIAB-24/K9	CISCO3825-AC-IP, 24-port EtherSwitch, AIM CUE, PVDM2-64, CCME-SMALL, SCUE-LIC-25CCME, Adv IP Services, 128MB Flash/512MB DRAM
C3845-BIAB-24/K9	CISCO3845-AC-IP, 24-port EtherSwitch, NM CUE, PVDM2-64, CCME-SMALL, SCUE-LIC-25CCME, Adv IP Services, 128MB Flash/512MB DRAM
C3845-BIAB-48/K9	CISCO3845-AC-IP, 48-port EtherSwitch, NM CUE, PVDM2-64, CCME-MEDIUM, SCUE-LIC-50CCME, Adv IP Services, 128MB Flash/512MB DRAM

Cisco 3800 Series Security Bundles

CISCO3845-SEC/K9	Cisco 3845 Security Bundle with IOS Advanced Security, 64MB Flash/256 MB DRAM
CISCO3845-HSEC/K9	Cisco 3845 Security Bundle with IOS Advanced IP Services, AIM-VPN/HPII Plus, 128MB Flash/512 MB DRAM
CISCO3825-SEC/K9	Cisco 3825 Security Bundle with IOS Advanced Security, 64MB Flash/256MB DRAM
CISCO3825-HSEC/K9	Cisco 3825 Security Bundle with IOS Advanced IP Services, AIM-VPN/EPII Plus, 128MB Flash/512 MB DRAM

Cisco 3800 Series Voice Bundles

CISCO3845-V/K9	Cisco 3845 Voice Bundle with IOS SP Services, PVDM2-64, 64 MB Flash/256 MB DRAM
CISCO3845-SRST/K9	Cisco 3845 Voice Bundle with IOS SP Services, PVDM2-64, FL-SRST (240 users), 64 MB Flash/256 MB DRAM
CISCO3845-CCME/K9	Cisco 3845 Voice Bundle with IOS SP Services, PVDM2-64, FL-CCME (240 users), 64 MB Flash/256 MB DRAM
CISCO3825-V/K9	Cisco 3825 Voice Bundle with IOS SP Services, PVDM2-64, 64 MB Flash/256 MB DRAM
CISCO3825-SRST/K9	Cisco 3825 Voice Bundle with IOS SP Services, PVDM2-64, FL-SRST (168 users), 64 MB Flash/256 MB DRAM
CISCO3825-CCME/K9	Cisco 3825 Voice Bundle with IOS SP Services, PVDM2-64, FL-CCME (168 users), 64 MB Flash/256 MB DRAM

Cisco 3800 Series WAAS Optimization Bundles

CISCO3825-WAE/K9	3825, NME-WAE-502/K9, WAAS Trans, IPBase, 128F/512D
CISCO3845-WAE/K9	3845, NME-WAE-502/K9, WAAS Trans, IPBase, 128F/512D

Ethernet Switching Network Modules

NME-16ES-1G-P=	EtherSwitch Service Mod 16 10/100T POE + 1 GE, IP Base
NME-X-23ES-1G-P=	EtherSwitch Service Mod 23 10/100T POE + 1 GE POE, IP Base
NM-16ESW	16-port 10/100 Cisco EtherSwitch Network Module
NM-16ESW-1GIG	16-port 10/100 Cisco EtherSwitch Network Module with 1 Gigabit Ethernet (1000BASE-T) port
NM-16ESW-PWR	16-port 10/100 Cisco EtherSwitch Network Module with in-line power support
NM-16ESW-PWR-1GIG	16-port 10/100 Cisco EtherSwitch Network Module with in-line power and Gigabit Ethernet
NMD-36ESW	36-port 10/100 Cisco EtherSwitch High-Density Services Module (HDSM)
NMD-36ESW-2GIG	36-port 10/100 Cisco EtherSwitch HDSM with 1 Gigabit Ethernet (1000BASE-T) port
NMD-36ESW-PWR	36-port 10/100 Cisco EtherSwitch HDSM with in-line power support
NMD-36ESW-PWR-2G	36-port 10/100 Cisco EtherSwitch HDSM with in-line power and Gigabit Ethernet
NME-XD-24ES-1S-P	24 10/100 w/ POE + 1 SFP + Stackwise interfaces
NME-XD-48ES-2S-P	48 10/100 w/ POE + 2 SFP

Serial Connectivity Network Modules

NM-1T3/E3	1-port clear-channel T3/E3 network module
NM-1HSSI	1-port High-Speed Serial Interface (HSSI) network module
NM-4A/S	4-port asynchronous/synchronous serial network module
NM-8A/S	8-port asynchronous/synchronous serial network module
NM-16A/S	16-port asynchronous/synchronous serial network module
NM-16A	16-port asynchronous serial network module
NM-32A	32-port asynchronous serial network module
NM-4T	4-Port Serial Network Module

Channelized T1/E1 and ISDN Network Modules

NM-1CE1T1-PRI	1-port Channelized E1/T1/ISDN PRI network module
NM-2CE1T1-PRI	2-port Channelized E1/T1/ISDN PRI network module
NM-4B-S/T	4-port ISDN BRI network module (S/T interface)
NM-4B-U	4-port ISDN BRI network module with integrated Network Termination 1 (NT1) (U interface)
NM-8B-S/T	8-port ISDN BRI network module (S/T interface)
NM-8B-U	8-port ISDN BRI network module with integrated NT1 (U interface)

ATM Network Modules and Transceiver Modules

NM-1A-T3	1-port DS-3 ATM network module
NM-1A-E3	1-port E3 ATM network module
NM-1A-OC3-POM	ATM OC3 module with single POM (SFP) slot
SFP-OC3-MM	OC3/STM1 SFP, Multi-mode fiber
SFP-OC3-IR1	OC3/STM1 SFP, Single-mode fiber, Intermediate Reach
SFP-OC3-LR1	OC3/STM1 SFP, Single-mode fiber, Long Reach (40km)

Analog Dialup and Remote Access Network Modules

NM-8AM-V2	8-port analog modem network module with v.92
NM-16AM-V2	16-port analog modem network module with v.92

Digital Modem and Remote Access Network Modules

NM-6DM	6 Port Digital Modem Network Module
NM-12DM	12 Port Digital Modem Network Module
NM-18DM	18 Port Digital Modem Network Module
NM-24DM	24 Port Digital Modem Network Module
NM-30DM	30 Port Digital Modem Network Module
MICA-6MOD=	6 Port Digital Modem Module, Spare

LAN/WAN Mixed Media Network Modules

NM-1FE1R2W	1 10/100 Ethernet 1 4/16 Token-Ring 2 WAN Card Slot NM
NM-1FE2W-V2	1 10/100 Ethernet with 2 WAN Card Slot Network Module
NM-1FE2W-V2	2 10/100 Ethernet with 2 WAN Card Slot Network Module
NM-1GE	1 Port Gigabit Ethernet Network Module

Voice Network Modules and Accessories

NM-HD-1V	1-slot IP Communications voice and fax network module
NM-HD-2V	2-slot IP Communications voice and fax network module
NM-HD-2VE	2-slot IP Communications enhanced voice and fax network module
NM-HDA-4FXS	High-density analog voice and fax network module with 4 FXS slots
NM-HDV2	IP Communications high-density voice and fax network module
NM-HDV2-1T1/E1	1-port T1/E1 IP Communications high-density voice and fax network module
NM-HDV2-2T1/E1	2-port T1/E1 IP Communications high-density voice and fax network module
NM-HDV=	High-density voice and fax network module (single VIC slot)
NM-HDV-1T1-12	1-port 12-channel T1 voice and fax network module
NM-HDV-1T1-24	1-port 24-channel T1 voice and fax network module
NM-HDV-1T1-24E	Single-port 24-enhanced-channel T1 voice and fax network module
NM-HDV-2T1-48	2-port 48-channel T1 voice and fax network module
NM-HDV-1E1-12	1-port 12-channel E1 voice and fax network module
NM-HDV-1E1-30	1-port 30-channel E1 voice and fax network module
NM-HDV-1E1-30E	1-port 30-enhanced-channel E1 voice and fax network module
NM-HDV-2E1-60	2-port 60-channel E1 voice and fax network module
NM-HDV-1J1-30	1-port 30-channel J1 high-density voice network module
NM-HDV-1J1-30E	1-port 30-enhanced-channel J1 high-density voice network module
NM-HDV-FARM-C36	36-port transcoding and conferencing DSP farm
NM-HDV-FARM-C54	54-port transcoding and conferencing DSP farm
NM-HDV-FARM-C90	90-port transcoding and conferencing DSP farm

Application Network Modules

NME-WAE-302/K9	WAAS ISR NME (ONLY TRANSPORT SUPPORTED) 512MB RAM, 80GB HDD
NME-WAE-502/K9	WAAS Network Module For 2800, 3800 ISR - 1GB RAM, 120GB HDD
NM-CE-BP-40G-K9	Cisco Content Engine Network Module, basic performance, 40-GB IDE hard disk
NM-CE-BP-80G-K9	Cisco Content Engine Network Module, basic performance, 80-GB IDE hard disk
NM-CIDS-K9	Cisco IDS Network Module
NM-CUE	Cisco Unity Express Voice-Mail Network Module; price includes 12-mailbox license
NM-CUE-EC	Cisco Unity Express Network Module Enhanced Capacity; price includes 12-mailbox license
NM-NAM	Cisco series Network Analysis Module Network Module
NM-AON-K9	Cisco 2600/2800/3700/3800 Series AON Network Module
NM-AIR-WLC6-K9	WLAN controller Network Module for 28/38xx ISR

Wireless LAN Controller Modules

NM-AIR-WLC6-K9	WLAN Controller Module for up to 6 lightweight access points 2800/3800 ISR
NME-AIR-WLC8-K9	WLAN Controller Module for up to 8 lightweight access points 2800/3800 ISR
NME-AIR-WLC12-K9	WLAN Controller Module for up to 12 lightweight access points 2800/3800 ISR

Circuit Emulation Service over IP (CESoIP) Network Modules

NM-CEM-4SER	4-port serial CESoIP network module
NM-CEM-4T1E1	4-port T1/E1 CESoIP network module

Extension Voice Modules

EVM-HD-8FXS/DID	High-density voice and fax extension module - 8 FXS or DID
-----------------	--

Ethernet Switching HWICs

HWIC-4ESW	4-port single-wide 10/100BASE-T Ethernet switch HWIC
HWIC-D-9ESW	9-port double-wide 10/100BASE-T Ethernet switch HWIC
HWIC-4ESW-POE	4-port Ethernet switch HWIC, PoE capable
HWIC-D-9-ESW-POE	9-port Ethernet switch HWIC, PoE capable

Gigabit Ethernet HWICs

HWIC-1GE-SFP	GigE High Speed WIC With One SFP Slot
--------------	---------------------------------------

Wireless WAN HWICs and Accessories

HWIC-3G-CDMA-S	3G WWAN HWIC-EVDO Rev A/Rel 0/1xRTT-800/1900MHz
HWIC-CDMA-CDMA-V	3G WWAN HWIC-EVDO Rev A/Rel 0/1xRTT-800/1900MHz
HWIC-3G-GSM	3GWWAN HWIC-HSDPA/UMTS/EDGE/GPRS-850/900/1800/1900/2100MHz
HWIC-AP-G-A	Cisco 802.11 B/G Access Point High Speed Wan Interface Card for the Americas (FCC configuration)
HWIC-AP-G-E	Cisco 802.11 B/G Access Point High Speed Wan Interface Card for Europe (ETSI configuration)
HWIC-AP-G-J	Cisco 802.11 B/G Access Point High Speed Wan Interface Card for Japan (TELEC configuration)
HWIC-AP-AG-A	Cisco 802.11 A/B/G Access Point High Speed Wan Interface Card for the Americas (FCC configuration)
HWIC-AP-AG-E	Cisco 802.11 A/B/G Access Point High Speed Wan Interface Card for Europe (ETSI configuration)
HWIC-AP-AG-J	Cisco 802.11 A/B/G Access Point High Speed Wan Interface Card for Japan (TELEC configuration)
AIR-ANT4941	2.2 dBi Cisco Aironet 2.4 GHz Swivel mount dipole
AIR-ANT5959	2 dBi Cisco Aironet 2.4 GHz Diversity omni-directional ceiling mount patch
AIR-ANT1728	5.2dBi Cisco Aironet 2.4 GHz Omni-directional ceiling mount
AIR-ANTM2050D-R	(2.2 dBi Cisco 2.4 Ghz and 5.0 dBi 5 GHz) Dual band Swivel mount dipole antenna
AIR-ANTM5560P-R	(5.5 dBi Cisco 2.4 Ghz and 6.0 dBi 5 GHz) Dual band Wall-mount patch antenna
AIR-ANTM4050V-R	(4.0 dBi Cisco 2.4 Ghz and 5.0 dBi 5 GHz) Dual band Diversity Ceiling-mount omnidirectional antenna
AIR-CAB020LL-R	20-ft. (6m) low-loss cable with RP-TNC connectors
AIR-CAB050LL-R	50-ft. (15m) low-loss cable with RP-TNC connectors
AIR-CAB100ULL-R	100 ft. (30m) ultra-low-loss cable with RP-TNC connectors
AIR-CAB150ULL-R	150-ft. (46m) ultra-low-loss cable with RP-TNC connector

Serial WICs and HWICs

HWIC-4T	4-Port Serial HWIC
HWIC-4A/S	4-Port Async/Sync Serial HWIC
HWIC-8A/S-232	8-Port Async/Sync Serial HWIC, EIA-232
HWIC-8A	8-Port Async HWIC
HWIC-16A	16-Port Async HWIC
WIC-1T	1-port high-speed serial WIC
WIC-2T	2-port high-speed serial WIC
WIC-2A/S	2-port asynchronous/synchronous serial WIC

CSU/DSU WICs

WIC-1DSU-T1-V2	1-port T1/Fractional-T1 DSU/CSU WIC
WIC-1DSU-56K4	1-port 4-wire 56-/64-kbps CSU/DSU WIC

ISDN BRI WICs

WIC-1B-U-V2	1-port ISDN BRI with integrated NT1 (U interface)
WIC-1B-S/T-V3	1-port ISDN BRI with S/T interface

DSL and Cable WICs and HWICs

WIC-1ADSL	1-port asymmetric DSL (ADSL) over basic-telephone-service WIC
WIC-1ADSL-DG	1-port ADSL over basic telephone service with dying-gasp WIC
WIC-1ADSL-I-DG	1-port ADSL over ISDN with dying-gasp WIC
HWIC-1ADSL	1-port ADSLoPOTS HWIC
HWIC-1ADSLI	1-port ADSLoISDN HWIC
WIC-1SHDSL-V3	1-port G.shdsl WIC (two or four wire)
HWIC-2SHDSL	2-pair G.SHDSL HWIC
HWIC-4SHDSL	4-pair G.SHDSL HWIC w IMA
HWIC-CABLE-D-2	1-Port DOCSIS 2.0 Cable HWIC
HWIC-CABLE-E/J-2	1-Port Euro DOCSIS 2.0 Cable HWIC

Analog Modem WICs

WIC-1AM	1-port analog modem WIC
WIC-2AM	2-port analog modem WIC

T1, E1, and G.703 Multiflex Trunk Voice Cards and WICs

VVIC2-1MFT-T1/E1=	1-Port 2nd Gen Multiflex Trunk Voice/WAN Int. Card - T1/E1 spare
VVIC2-2MFT-T1/E1=	2-Port 2nd Gen Multiflex Trunk Voice/WAN Int. Card - T1/E1 spare
VVIC2-1MFT-G703=	1-Port 2nd Gen Multiflex Trunk Voice/WAN Int. Card - G.703 spare
VVIC2-2MFT-G703=	2-Port 2nd Gen Multiflex Trunk Voice/WAN Int. Card - G.703 spare
EC-MFT-32=	32-Channel Multiflex Trunk Dedicated ECAN Module spare
EC-MFT-64=	64-Channel Multiflex Trunk Dedicated ECAN Module spare
VVIC-1MFT-T1	1-port RJ-48 multiflex trunk - T1
VVIC-2MFT-T1	2-port RJ-48 multiflex trunk - T1
VVIC-2MFT-T1-DI	2-port RJ-48 multiflex trunk - T1 with drop and insert
VVIC-1MFT-E1	1-port RJ-48 multiflex trunk - E1
VVIC-1MFT-G703	1-port RJ-48 multiflex trunk - G.703
VVIC-2MFT-E1	2-port RJ-48 multiflex trunk - E1
VVIC-2MFT-E1-DI	2-port RJ-48 multiflex trunk - E1 with drop and insert
VVIC-2MFT-G703	2-port RJ-48 multiflex trunk - G.703
<i>VICs</i>	
VIC-2DID	2-port DID voice and fax interface card
VIC-1J1	1-port digital VIC (J1) for Japan
VIC-4FXS/DID	4-port FXS or DID VIC
VIC2-2FXS	2-port VIC - FXS
VIC2-2FXO	2-port VIC - FXO (universal)
VIC2-4FXO	4-port VIC - FXO (universal)
VIC2-2E/M	2-port VIC - E&M
VIC2-2BRI-NT/TE	2-port VIC card - BRI (NT and TE)
<i>AIMs</i>	
AIM-ATM	High-performance ATM SAR AIM
AIM-ATM-1T1=	High Performance ATM AIM/T1 Bundle AIM-ATM spare
AIM-ATM-1E1=	High Performance ATM AIM/E1 Bundle AIM-ATM spare
AIM-ATM-4T1=	AIM-ATM with 2 VVIC-2MFT-T1 spare
AIM-ATM-4E1	AIM-ATM with 2 VVIC-2MFT-E1
AIM-COMPR4	Data-compression AIM
AIM-CUE	Cisco Unity Express Voice-Mail AIM
AIM-VPN/EPII-PLUS	Enhanced-performance DES, 3DES, AES, and compression VPN encryption AIM
AIM-VPN/SSL-3	DES/3DES/AES/SSL VPN Encryption/Compression
<i>PVDM Support on Motherboard Slots</i>	
PVDM2-8	8-channel fax and voice DSP module
PVDM2-16	16-channel fax and voice DSP module
PVDM2-32	32-channel fax and voice DSP module
PVDM2-48	48-channel fax and voice DSP module
PVDM2-64	64-channel fax and voice DSP module

1. This is only a small subset of all parts available via URL listed under "For More Information." Some parts have restricted access or are not available through distribution channels. Resellers: For latest part number and pricing info, see the Distribution Product Reference Guide at: <http://www.cisco.com/dprg> (limited country availability).

For More Information

See the Cisco 3800 Series Web site: <http://www.cisco.com/go/3800>

Cisco 7000 Series Port Adapter Compatibility Matrix

Port Adapter	7201	7204VXR	7206VXR	7301	7304 Carrier Card	7600
<i>ATM Port Adapters</i>						
PA-A3-8T1IMA 8-port ATM inverse Mux T1 port adapter	•	•	•	•	•	•
PA-A3-8E1IMA: 8-port ATM inverse Mux E1 (120 ohm) port adapter	•	•	•	•	•	•
PA-A3-OC3-MM/SMI/SML: 1-port ATM-enhanced OC-3c/STM1 multimode intermediate and long range port adapter	•	•	•	•	•	• (Native)
PA-A3-T3/E3: 1-port ATM-enhanced DS3 port adapter	•	•	•	•	•	• (Native)
PA-A6-OC3MM/SMI/SML: 1-port ATM OC-3 multimode, intermediate and long range port adapter	•	•	•	•	• Support in 12.2(31)SB	•
PA-A6-T3 or E3: 1-port ATM DS3 (E3) port adapter	•	•	•	•	• Support in 12.2(31)SB	•
<i>Ethernet Port Adapters</i>						
PA-2FE-TX/FX: 2-port Fast Ethernet 100Base-TX/FX port adapter	•	•	•	•	•	•
PA-4E: 4-port Ethernet 10Base-T port adapter	–	•	•	•	•	–
PA-8E: 8-port Ethernet 10Base-T port adapter	•	•	•	•	•	–
PA-GE: Gigabit Ethernet port adapter	•	•	•	–	•	–
<i>Serial Port Adapters</i>						
PA-4E1G/75: 4-port E1 G.703 serial port adapter (120 ohm/balanced)	•	•	•	•	•	–
PA-4E1G/120: 4-port E1 G.703 serial port adapter (120 ohm/balanced)	•	•	•	•	•	•
PA-4T+: 4-port serial port adapter, enhanced	•	•	•	•	•	• (Native)
PA-8T-XXX: 8-port serial, 232, V.35, X.21 port adapter	–	•	•	•	•	• (Native)
<i>High-speed Serial Port Adapters</i>						
PA-H: 1-port HSSI port adapter	•	•	•	•	•	• (Native)
PA-2H: 2-port HSSI port adapter	•	•	•	•	•	• (Native)
PA-E3: 1-port E3 serial port adapter with E3 DSU	•	•	•	•	•	• (Native)
PA-2E3: 2-port E3 serial port adapter with E3 DSUs	•	•	•	•	•	• (Native)
PA-T3+: 1-port T3 serial port adapter, enhanced	•	•	•	•	•	• (Native)
PA-2T3+: 2-port T3 serial port adapter, enhanced	–	•	•	•	•	• (Native)
<i>Multichannel Serial Port Adapters</i>						
PA-4B-U	–	•	•	•	–	–
PA-8B-S/T: 8-port BRI port adapter, S/T interface	–	•	•	•	–	–
PA-MC-2T(1): 2-port multichannel T1 port adapter with integrated CSU/DSUs	•	•	•	•	•	–
PA-MC-4T(1): 4-port multichannel T1 port adapter with integrated CSU/DSUs	•	•	•	•	•	•
PA-MC-8TE1+: 8-port multichannel T1/E1 8PRI port adapter	•	•	•	•	•	•
PA-MC-2E1/120: 2-port multichannel E1 port adapter with G.703 120 ohm interface	•	•	•	•	•	•
PA-MC-E3: 1-port multichannel E3 port adapter	•	•	•	•	•	•

<i>Port Adapter</i>	<i>7201</i>	<i>7204VXR</i>	<i>7206VXR</i>	<i>7301</i>	<i>7304 Carrier Card</i>	<i>7600</i>
PA-MC-T3: 1-port multichannel T3 port adapter	*	*	*	*	*	*
PA-MC-2T3+: 2-port multichannel T3 port adapter	*	*	*	*	*	*
PA-MC-STM-1MM: 1-port multichannel STM-1 multimode port adapter	*	*	*	*	*	*
PA-MC-STM-1SMI: 1-port multichannel STM-1 single mode port adapter	*	*	*	*	*	*
PA-MCX-2TE(1): 2-port MIX-enabled multichannel T1/E1 with CSU/DSU	*	*	*	–	–	–
PA-MCX-4TE(1): 4-port MIX-enabled multichannel T1/E1 with CSU/DSU	*	*	*	–	–	–
PA-MCX-8TE(1): 8-port MIX-enabled multichannel T1/E1 with CSU/DSU	*	*	*	–	–	–
<i>SONET Port Adapters</i>						
PA-POS-20C3: 2-port OC-3/STM1 POS port adapter	*	*	*	*	*	*
PA-POS-10C3: 1 Port Packet/SONET OC3/STM1 port adapter	*	*	*	*	*	*
<i>Other Port Adapters and Service Adapters</i>						
PA-4C-E: 1-port-enhanced ESCON channel port adapter	–	*	*	–	–	–
C7200-VSA: VPN Services Adapter for the Cisco 7200–	–	*	*	*	–	–
SA-VAM2+: VPN acceleration module 2+	• (12.4 (6th release)T)	*	*	–	–	–
PA-VXC-2TE1+: 2-port T1/E1 high-capacity enhanced-voice PA	–	*	*	*	–	–
PA-VXB-2TE1+: 2-port T1/E1 moderate-capacity enhanced-voice PA	–	*	*	*	–	–
PA-VXA-1TE1-24+: 1-port T1/E1 digital voice port adapter with 24 channels	–	*	*	–	–	–
PA-VXA-1TE1-30+: 1-port T1/E1 digital voice port adapter with 30 channels	–	*	*	–	–	–
PA-4R-DTR: 4-port dedicated Token Ring, 4/16 Mbps, – HDX/FDX	–	*	*	–	–	–

Cisco 7200 Series

The Cisco 7200 Series routers—Cisco 7201, Cisco 7204VXR, and Cisco 7206VXR—deliver an exceptional price to performance ratio, versatility, and feature-richness in a compact form factor. The Cisco 7200 is an optimized integrated services aggregation OC3/GE edge router ideal as a WAN aggregator for the Service Provider (small POP) or enterprise edge, an enterprise WAN gateway, a high-end managed CPE, for IBM data center connectivity or as a small core router. With the hardware supported IPsec encryption module as well as robust firewall and VRF aware IPSec/NAT support, the Cisco 7200 series is ideal for integrated security service. The Cisco 7200 series also supports Gatekeeper and IP-to-IP Gateway functionality. Modularity combined with a low initial price point guarantees both investment protection and maximum return on investment, allowing the customer to upgrade and/or redeploy their Cisco 7200 series as their network needs change.



When to Sell

Sell This Product

When a Customer Needs These Features

Cisco 7201

- 1-slot chassis
- Built-in NPE-G2 with up to 2 Mpps
- WAN Services aggregation (e.g. MPLS PE traffic segmentation)
- Integrated Edge Services (e.g. Integrated Security)
- IP-to-IP Gateway - highest capacity of call support in Cisco router portfolio
- MIX-enabled bus for data/voice/video applications

Cisco 7204VXR

- 4-slot chassis
- Modular processor: 225 kpps, 400 kpps, 1 Mpps, or 2 Mpps (NPE-225, NPE-400, NPE-G1, NPE-G2)
- 1.8 Gbps backplane (with NPE-G2)
- WAN Services aggregation (e.g. MPLS PE traffic segmentation)
- Integrated Edge Services (e.g. Integrated Security)
- IP-to-IP Gateway - highest capacity of call support in Cisco router portfolio
- MIX-enabled bus for data/voice/video applications

Cisco 7206VXR

- 6-slot chassis
- Modular processor: 400 kpps, 1 Mpps, or 2 Mpps (NPE-400, NPE-G1, NPE-G2)
- 1.8 Gbps backplane (with NPE-G2)
- WAN Services aggregation (e.g. MPLS PE traffic segmentation)
- IP-to-IP Gateway - highest capacity of call support in Cisco router portfolio
- MIX-enabled bus for data/voice/video applications

Key Features

- **Compact Form Factor**—Up to six port adapters in a fully modular 3-RU form factor; seven port adapters with a port adapter jacket card; choice of a 1-slot, 1-RU chassis with 2 Mpps of power built in
- **Modularity**—A choice of 1-, 4-, and 6-slot chassis, a selection of processors providing up to 2 Mpps, an extensive range of LAN and WAN interfaces with up to 48 ports per chassis, and single or dual power supplies; Chassis expandable to an additional slot by utilizing I/O Slot as a port/service adapter slot through the use of the port adapter jacket card
- **Exceptional Value**—Offers superior price to performance ratio supporting high-speed media and high-density configurations with up to 2 million packets per second processing at a competitive price point
- **Feature Rich**—Full support for Cisco IOS® software and enhancements for high-performance network services; offers industry-leading network services, including: MPLS, Route Reflector, broadband aggregation, Intelligent Services Gateway, QoS, Service Management router, IBM data center, Storage Area Network application, security, and voice/video/data support, Gatekeeper and IP-to-IP Gateway (Session Border Controller) support
- **Connectivity/Flexibility**—Provides high port density and an extensive range of LAN and WAN media
- **Common port adapters**—Port adapters are shared with the Cisco 7300 and 7600 series (with FlexWAN Module), which simplifies sparing and protects customer investment in interfaces

Competitive Products

• Juniper: M7i, M10i

• Redback: SMS-1800, SmartEdge 100

Specifications

<i>Feature</i>	<i>Cisco 7201</i>	<i>Cisco 7204VXR</i>	<i>Cisco 7206VXR</i>
<i>Fixed Ports</i>	4 GEs	0	0
<i>Expansion Slots</i>	1	4 (5 with port adapter jacket card ¹ utilizing the I/O slot)	6 (7 with port adapter jacket card ¹ utilizing the I/O slot)
<i>WAN Port Adapters</i>	DS0 to OC-3	DS0 to OC-3	Same as 7204VXR

Feature	Cisco 7201	Cisco 7204VXR	Cisco 7206VXR
Forwarding Rate	Up to 2 Mpps	Up to 1 Mpps	Same as 7204VXR
Backplane Capacity	N/A	1.8 Gbps (with NPE-G2)	Same as 7204VXR
Flash (Compact) Memory	256 MB (default and max.)	For NPE-G2: 256 MB (default and max.) For NPE-G1: 64 MB (expandable to 256 MB)	Same as 7204VXR
Flash (PCMCIA) Memory (I/O Controller Card required for NPE-225, NPE-400)	N/A	64 MB (expandable to 128 MB)	Same as 7204VXR
System DRAM Memory	1 GB (default); 2 GB (max.)	NPE-G2: 1 GB (default); 2 GB (max.) NPE-G1: 256 MB (default); 1 GB (max.) NPE-225: 128 MB (default); 256 MB (max.) NPE-400: 256 MB (default); 512 MB (max.)	Same as 7204VXR
Minimum Cisco IOS Release	12.4(4)XD7 12.2(31)SB4	NPE-G2: 12.4(4)XD (based on 2nd release of 12.4T), fifth release of 12.4T (and later), fourth release of 12.2SB (and later), first release of 12.5 mainline (and later) NPE-G1: 12.2(4)BW, 12.2(15)B, 12.2(14)S, 12.2(14)SU, 12.2(15)T, 12.1(14)E, 12.3(1), 12.3(2)T, 12.0(28)S, 12.3(1a)B (and later) NPE-400: 12.0(14)S, 12.1(3)E, 12.1(5)T, 12.2(1)T, 12.2(1) (and later) NPE-225: 12.0(5)XE6, 12.0(7)XE1, 12.0(9)S, 12.1(1) (and later)	Same as 7204VXR
Internal Power Supply	Dual AC or Dual DC – By default	AC or DC, dual option	Same as 7204VXR
Redundant Power Supply	Yes, Dual AC or DC by default	Yes, for AC or DC	Same as 7204VXR
Chassis Height	1-RU	3-RU	Same as 7204VXR
Rack Mountable	Yes	Yes, up to 16 per rack	Same as 7204VXR
Dimensions (H x W x D)	1.75 x 19 x 16.9 in.	5.25 x 16.8 x 17 in.	Same as 7204VXR

1. Jacket Card part number: C7200-JC-PA

Selected Part Numbers and Ordering Information¹

Cisco 7200 Series Chassis

CISCO7201	CISCO 7201 router, with built-in dual power supplies, NPE-G2, and IP Software
CISCO7204VXR	Cisco 7204VXR, 4-slot chassis, 1 AC Supply w/IP Software
CISCO7206VXR	Cisco 7206VXR, 6-slot chassis, 1 AC Supply w/IP Software

Cisco 7200 Series Processors

NPE-G2=	Cisco 7200 Network Processing Engine NPE-G2 including 1 GB default DRAM and 256 MB default flash memory, Spare
NPE-G1=	Cisco 7200 Network Processing Engine NPE-G1 including 256 MB default DRAM and 64 MB default flash memory, Spare
NPE-400=	Cisco 7200 Network Processing Engine NPE-400 including 256 MB default DRAM and 64 MB default flash memory, Spare

Cisco 7200 Series Input/Output Controller

C7200-I/O-2FE/E=	Cisco 7200 Input/Output Controller with Dual 10/100 Ethernet, Spare
C7200-I/O-GE+E=	Cisco 7200 Input/Output Controller with GE and Ethernet, Spare
C7200-I/O=	Cisco 7200 Input/Output Controller, Spare

Cisco 7201 Memory

MEM-7201-1GB=	Cisco 7201 Series 1GB Memory Spare
MEM-7201-2GB=	Cisco 7201 Series 2GB Memory Spare
MEM-7201-FLD256=	Cisco 7201 Compact Flash Disk, 256 MB Spare

Cisco 7200 Memory: NPE-G2

MEM-NPE-G2-2GB=	2 GB memory module for the Cisco 7200 Network Processing Engine NPE-G2, Spare
MEM-NPE-G2-FLD256=	256 MB Compact Flash for the Cisco 7200 Network Processing Engine NPE-G2, Spare

Cisco 7200 Processor Memory: NPE-G1

MEM-NPE-G1-256MB=	Two 128MB memory modules (256MB total) for the Cisco 7200 Network Processing Engine NPE-G1, Spare
MEM-NPE-G1-512MB=	Two 256MB memory modules (512MB total) for the Cisco 7200 Network Processing Engine NPE-G1, Spare
MEM-NPE-G1-1GB=	Two 512MB memory modules (1GB total) for the Cisco 7200 Network Processing Engine NPE-G1, Spare
MEM-NPE-G1-FLD64=	64MB Compact Flash Disk for the Cisco 7200 Network Processing Engine NPE-G1, Spare
MEM-NPE-G1-FLD128=	128MB Compact Flash Disk for the Cisco 7200 Network Processing Engine NPE-G1, Spare
MEM-NPE-G1-FLD256=	256MB Compact Flash Disk for the Cisco 7200 Network Processing Engine NPE-G1, Spare

Chapter 1

<i>Cisco 7200 Memory: NPE-400</i>	
MEM-NPE-400-256MB=	256MB Memory for NPE-400 in 7200 Series, Spare
MEM-NPE-400-512MB=	512MB Memory for NPE-400 in 7200 Series, Spare
<i>Cisco 7200 Memory: NPE-225</i>	
MEM-SD-NPE-128MB=	128MB Memory Upgrade Kit for NPE-300/NPE-225/NPE-175, Spare
<i>Cisco 7200 NPE Bundles</i>	
7206VXR/NPE-G2	7206VXR with NPE-G2 includes 3GigE/FE/E Ports and IP SW
7206VXR/NPE-G1	7206VXR with NPE-G1 includes 3GigE/FE/E Ports and IP SW
C7206VXR/400/GE	7206VXR with NPE-400 and GE+E I/O controller
C7206VXR/400/2FE	7206VXR with NPE-400 and I/O Controller with 2 FE/E Ports
<i>Cisco 7200 MPLS/IPv6 Bundles</i>	
7206-IPV6/ADSVK/K9	Cisco 7206VXR IPv6/Adv. Ent. Services with NPE-G2
<i>Cisco 7200 Security Bundles</i>	
7206VXR/2/NSAVPNK9	7206VXR Chassis, NPE-G2, C7200-VSA Security Module, 256 MB Flash, 1GB DRAM, IOS ADVANCED SECURITY, SDM
7206VXR/2/2+VPNK9	7206VXR Chassis, NPE-G2, SA-VAM2+ Security Module, Port Adapter Jacket Card, 256 MB Flash, 1 GB DRAM, IOS ADVANCED SECURITY, SDM
7206VXR/1/2+VPNK9	7206VXR, NPE-G1, SA-VAM2+, AC pwr, 512 sys mem, SDM
7206VXR/400/2+VPNK9	7206VXR, NPE-400, SA-VAM2+, AC pwr, 512 sys mem, SDM
<i>Cisco 7200 Voice Bundles</i>	
C7206VXR/VOICE/400	7206VXR w/ NPE-400, Voice PA (PA-VXC-2TE1+), I/O contrlr w/ 2FE
<i>Cisco 7200 Broadband Bundles</i>	
CISCO7206-BB	Cisco 7206 Broadband Bundle NPE-G1 includes 3GigE/FE/E Ports
<i>Cisco 7200 CPE Bundle</i>	
7204VXR/CPE	7204VXR w/ NPE-225, 2 FE I/O, choice of specified WAN PA
<i>Cisco 7200 Channel Bundles</i>	
CISCO7204VXR-CH	Cisco 7204VXR, 4-slot chassis, 1 AC Supply w/ IP Software
CISCO7206VXR-CH	Cisco 7206VXR, 6-slot chassis, 1 AC Supply w/ IP Software
<i>Cisco 7200 Series Accessories</i>	
RCKMNT-7201=	Rack Mount kit for Cisco 7201 Spare
ACS-7200-RMK=	Cisco 7200 Rackmount Kit and Cable Management Bracket
IO-CONTROLR-BLANK=	7200 IO Controller Blank for use with NPE-G1 or NPE-G2
MAS-7200-CBLMGMT =	Cisco NPE-G1/NPE-G2 Cable Management Bracket
MAS-7200PSCOVER=	Cisco 7200 Redundant Power Supply Cover
MAS-72KBLANK=	Cisco 7200 Series Blank Card Carrier
MAS-72KSLOTDIV=	Cisco 7200 Series Port Adapter Divider (Spare)
PKG-7200=	Cisco 7200 Spare System Packaging Material
C7200-PKG-JC=	7200VXR Jacket Card Packaging,Spare

1. This is only a small subset of all parts available via URL listed under "For More Information." Some parts have restricted access or are not available through distribution channels.

For More Information

See the Cisco 7200 Series Web site: <http://www.cisco.com/go/7200>

Cisco 7300 Series

The Cisco 7300 Series Routers are optimized for flexible, high performance IP/MPLS services at the network-, WAN-, and Broadband-edge, where service providers and enterprises link together. The Cisco 7304 Series Router is ideally applied as a high-end CPE or as an Internet Gateway router. Designed for network high availability and multi-protocol support, it supports the broad set of existing Cisco 7000 Series Port Adapters with the Cisco 7304 Port Adapter Carrier Card while also supporting the new Shared Port Adapters with the Cisco 7304 Multiservice Carrier Card (MSC). The Cisco 7301 Series Router is targeted at principal application areas within a Service provider network in a compact single rack form factor coupled with a broad set of interfaces and Cisco IOS software features. It packs high performance of up to 1 Mpps in a space and power efficient form factor that includes a single 7000 Series port adapter slot, and 3 on-board Gigabit Ethernet (copper or optical)/Fast Ethernet ports.



*When to Sell**Sell This Product**Cisco 7301**When a Customer Needs These Features*

- Compact, power efficient 1-RU form factor
- Three times the performance increase over the Cisco 7401
- Single 7000 Series Port Adapter Slot

Cisco 7304

- Highly modular price and performance optimized platform, rich in IP services
- High performance connectivity—DS-1 through OC48/STM16 with 3.5 Mpps performance
- Built-in Gigabit Ethernet connectivity
- Support for Shared Port Adapters
- Multiprotocol routing: IP, IPX, AppleTalk, DLSw
- Compact size, high availability and optimal cooling

Key Features

- Cisco 7301—Offers up to 1 Mpps processing performance
 - Pluggable Gigabit Ethernet optics (SFPs); 3 fixed 10/100/1000-Mbps ports (RJ-45 or SFP optics) directly on the processor
 - Full Cisco IOS feature support
 - Up to 1GB of available DRAM; Up to 256MB of removable compact flash memory
 - Front-back airflow and single sided management
- Cisco 7304—Compact modular form factor with 4-RU with four port adapter slots per chassis
 - Targeted toward Broadband aggregation, IPv6 gateway, Managed services, Switching-customer edge (MPLS-CE), Cost-effective route reflector, Enterprise network, Secure Internet gateway, Large-branch-office router, and Network-appliance router principal application areas within a Service provider networks
 - Comes with a choice of 3 route processors: NSE-100, NSE-150 and NPE-G100; NSE-100 and NSE-150 offer PXF-based performance
 - Hardware-accelerated services such as Cisco Express Forwarding (CEF), NetFlow v8, and Turbo ACL
 - Offers up to 3.5 Mpps performance for PXF-accelerated services with the NSE-100, NSE-150 Network Services Forwarding Engine
 - Two Gigabit Ethernet ports per NSE-100; Four On-board Gigabit Ethernet Interfaces per NSE-150; Three Gigabit Ethernet Interfaces per NPE-G100 and offers up to 1Mpps performance
 - System redundancy—optional dual processors and dual AC or DC power supplies increases network availability
 - NSE-150 engine offers unmatched price/performance: Parallel Express Forwarding (PXF) technology delivers hardware-accelerated network services with up to 3.5-Mpps forwarding rate; Improved performance and scalability with 800-MHz microprocessor and 2Gb main memory; High platform port density with up to 4 onboard Gigabit Ethernet ports

Competitive Products

• Cisco 7301—Juniper: ERX310, ERX700; Redback: SE100Cisco

• Cisco 7304—Juniper: M71, M101, ERX1400; Huawei: N20-2/4/8; Redback: SE400

Specifications

Feature	Cisco 7301	Cisco 7304
Fixed Ports	Three Gigabit Ethernet ports	NSE-100: 2 Gigabit Ethernet Ports NPE-G100: 3 Gigabit Ethernet Ports NSE-150: 4 Gigabit Ethernet Ports
Expansion Slots	1	4
WAN Interface Range	DS-1 to OC-3	DS-1 to OC-48
Forwarding Rate	Up to 1 Mpps	NSE-100: Up to 3.5 Mpps NSE-150: Up to 3.5Mpps NPE-G100: Up to 1 Mpps
Backplane Capacity	1.2 Gbps	16 Gbps
Flash PCMCIA Memory	64 MB (expandable to 256 MB)	NSE-100: 256 MB NPE-G100: 256 MB NSE-150: 256MB
System DRAM Memory	256 MB (expandable to 1 GB)	NSE-100: 512 MB NPE-G100: 1 GB NSE-150: 2 GB
Min Cisco IOS Release	12.2(11)YZ	NSE-100: 12.2(28)SB NPE-G100: 12.2(28)SB NSE-150: 12.2(31)SB2
Internal Power Supply	AC or DC	Same as 7301
RPS Support	Yes, for AC or DC	Same as 7301
Chassis Height	1-RU	4-RU
Rack Mountable	Yes, up to 40 per rack	Yes, up to 11 per rack
Dimensions (H x W x D)	1.73 x 17.3 x 13.87 in. (4.39 x 43.94 x 35.23 cm.)	7 x 17.2 x 20.5 in. (17.78 x 43.69 x 52.07 cm.)

Selected Part Numbers and Ordering Information¹

Cisco 7304 System

CISCO7304=	Cisco 7300, 4-slot chassis
CISCO7304-CH	Channel bundle: chassis, NSE-100,PWR-AC,MEM512,CFM-254,IOS,FAN
CISCO7304-G100	4-slot chassis, NPE-G100, 1 Power Supply
CISCO7304-G100-CH	Channel bundle:chassis,G100,PWR-AC,MEM-1GB,CFM-256,IOS,FAN
CISCO7304-NSE-150	4-slot chassis, NSE-150, 1 Power Supply, 2GB Memory
CISCO7304CH-NSE150	Channel bundle:chassis,NSE-150,PWR-AC, IOS IP PLUS,FAN

Cisco 7304 Processors

7300-NSE-100=	Cisco 7304 NSE-100 w/512MB SDRAM, 256MB Flash, (2)GE (Spare)
7300-NSE-100/2	Redundant Cisco 7304 NSE-100
7304-NPE-G100=	Cisco 7304 NPE-G100 w/1GB SDRAM, 256MB Flash, (3)GE/FE/E
7304-NPE-G100/2	Redundant 7304 NPE-G100 w/1GB SDRAM, 256MB Flash, (3)GE/FE/E
7300-NSE-150/2	Redundant Cisco 7304 NSE-150 w/2GB SDRAM, 256MB Flsh, (4)GE
7300-NSE-150	Cisco 7304 NSE-150 w/2GB SDRAM, 256MB Flash, (4)GE
7300-NSE-150=	Cisco 7304 NSE-150 w/2GB SDRAM, 256MB Flsh, (4)GE

Cisco 7304 Power Supplies

7300-PWR-DC=	Cisco 7304 DC Power Supply Spare
7300-PWR-AC=	Cisco 7304 AC Power Supply Spare
7300-PWR/2-DC	Cisco 7304 Redundant DC Power Supply Option
7300-PWR/2-AC	Cisco 7304 Redundant AC Power Supply Option

Cisco 7304 Memory Options

7300-MEM-512=	512MB SDRAM for 7304 NSE-100, spare
7304-MEM-G100-1GB=	1GB SDRAM for NPE-G100, spare

Cisco 7304 Series Compact Flash Options

7304-I/O-CFM-256M=	Cisco 7304 Compact Flash Memory, 256MB
--------------------	--

Cisco 7304 Line Cards

7300-1OC48POS-SMI=	1-port OC48 POS line card for Cisco 7304 w/ Single-mode IR
7300-2OC3ATM-MM=	2-port OC3 ATM line card for Cisco 7304 w/ Multi-mode
7300-2OC3ATM-SMI=	2-port OC3 ATM line card for Cisco 7304 w/ Single-mode IR
SPA-4FE-7304=	4-port 10/100 Fast Ethernet Shared Port Adapter
SPA-2GE-7304=	2-port Half-Height Gigabit Ethernet Shared Port Adapter
7300-1OC12ATM=	1xOC12 ATM Line Card

Cisco 7304 Carrier Cards

7300-CC-PA=	7304 Carrier Card for 7200 Series Port Adapters
7304-MS-C-100=	Cisco 7304 SPA Modular Services Carrier Card
ATTEN-KIT-PA=	Port Adapter Attenuator Kit, 75 ohm, 3 to 20db

<i>Cisco 7304 Accessories</i>	
7300-HALFSLOTBLNK=	Cisco 7304 Half-slot Blank card, spare
7300-4RU/RCKBRKT=	Cisco 7304 Chassis Rackmount Bracket Spare
7300-CNTR-SPTUM=	Cisco 7304 Center Septum Spare
<i>Cisco 7304 Cables</i>	
CAB-SC=	MT-RJ to SC Duplex Single Mode Converter Cable
<i>Cisco 7301 System</i>	
CISCO7301=	Cisco 7301 chassis, 256MB memory, A/C power, 64MB Flash
CISCO7301-BB	Cisco 7301, 512MB Mem, 16K license, 64MB Flash, A/C power, IP/IOS
CISCO7301-BB-8K	7301, 256M SDRAM, 8K Sub Broadband Feature License
CISCO7301BB-1G	7301, 1 G Mem, 64MB FI, AC Pwr, IP IOS, up to 16k sub BBA lic
CISCO7301BB-8K-1G	7301, 1 G Mem, 64MB FI, AC Pwr, IP IOS, up to 8k sub BBA lic
CISCO7301/ITP/BUN	ITP Signaling Gateway Bundle
CISCO7301-2AC=	Cisco 7301 Chassis with Dual AC Power Supply-Spare
CISCO7301-2DC48=	Cisco 7301 Chassis with Dual DC 48 Power Supply Spare
CISCO7301/2+VPNK9	7301, VAM2+, AC pwr, 512 sys mem, SDM
<i>Cisco 7301 Power Supplies</i>	
PWR-7301-AC	Cisco 7301 AC Power Supply Option
PWR-7301/2-AC	Cisco 7301 Dual AC Power Supply Option
PWR-7301/2-DC48	Cisco 7301 Dual DC48 Power Supply Option
<i>Cisco 7301 Memory Options</i>	
MEM-7301-1GB=	1GB memory upgrade for 7301-Spare
MEM-7301-512MB=	512MB memory upgrade for 7301-Spare
MEM-7301-256MB=	256MB memory upgrade for Cisco 7301-Spare
<i>Cisco 7301 Series Compact Flash Options</i>	
MEM-7301-FLD64=	Compact Disk Flash for 7301, 64MB option-Spare
MEM-7301-FLD128=	Compact Disk Flash for 7301, 128MB option-Spare
MEM-7301-FLD256=	Compact Disk Flash for 7301, 256MB Option-Spare
<i>Cisco 7301 Accessories</i>	
RCKMNT-7301=	Rack mount kits for 7301

For More Information

See the Cisco 7300 Series Web site: <http://www.cisco.com/go/7300>

Cisco 7600 Series



The Cisco 7600 Series combines optical WAN/MAN networking and high-volume Ethernet aggregation with a focus on the delivery of high-touch services for the IP and MPLS edge. It combines Layer 2 and Layer 3 networking capabilities with a high-bandwidth, high-performance architecture including hardware-based forwarding of MPLS, IPv4, & IPv6. Cisco 7600 series form factors include the Cisco 7604, 7606, 7609, and 7613. Each router can deliver DS0 to OC-192 WAN and nx10-Mbps Ethernet to nx10-Gigabit Ethernet connectivity into service provider edge, metropolitan-area and enterprise networks for a variety of triple-play and aggregation solutions.

When to Sell

Sell This Product

Cisco 7603-S

Cisco 7604

Cisco 7606

Cisco 7606-S

Cisco 7609

Cisco 7609-S

Cisco 7613

When a Customer Needs These Features

- 3 slot (horizontal) chassis; 240 Gbps backplane bandwidth¹; 30 Mpps forwarding rate¹; NEBs Compliant
- 4 slot (horizontal) chassis; 320 Gbps backplane bandwidth¹; 30 Mpps forwarding rate¹; NEBs Compliant
- 6 slot (horizontal) chassis; 480 Gbps backplane bandwidth¹; 30 Mpps forwarding rate¹; NEBs Compliant
- 6 slot (horizontal) chassis; 480 Gbps backplane bandwidth¹; 30 Mpps forwarding rate¹; NEBs Compliant
- 9 slot (vertical) chassis; 720 Gbps backplane bandwidth¹; 30 Mpps forwarding rate¹; NEBs Compliant
- 9 slot (vertical) chassis; 720 Gbps backplane bandwidth 1; 30 Mpps forwarding rate 1; NEBs Compliant
- 13 slot (horizontal) chassis; 720 Gbps backplane bandwidth¹; 30 Mpps forwarding rate¹; NEBs Compliant

1. Bandwidth & forwarding rate numbers assume Sup720 Engine

Key Features

- Up to 30 Mpps central or up to 400 Mpps distributed forwarding with hardware accelerated IPv4, IPv6, & MPLS
- Modular and scalable from 32 Gbps to 720 Gbps switch fabric
- One of the widest, most complete ranges of WAN interfaces in the industry, with DS0 to OC-192 connectivity
- Leveraging the Enhanced FlexWAN Module, 7x00 port adapters are shared with the Cisco 7200, 7300, 7400, and 7500 which simplifies sparing and protects customer investment in interfaces
- Support Catalyst 6500 LAN interfaces, offering nx10 Mbps Ethernet to 10 Gbps

Competitive Products

• Alcatel: 7450, 7750

• Juniper: M10i, M20, M40e, M320

Specifications

Feature	Cisco 7603-S	Cisco 7604	Cisco 7606 Cisco 7606-S	Cisco 7609 Cisco 7609-S	Cisco 7613
Fixed Ports	SFP & 10/100/1000 (Sup720)	SFP & 10/100/1000 (Sup720)	Same as Cisco 7603-S	Same as Cisco 7603-S	Same as Cisco 7603-S
Expansion Slots	3 (horizontal)	4 (horizontal)	6 (horizontal)	9 (vertical)	13 (horizontal)
WAN Interface Range	DS0 to OC-192	DS0 to OC-192	Same as Cisco 7603-S	Same as Cisco 7603-S	Same as Cisco 7603-S
Processor	Supervisor720-3B, Supervisor720-3BXL, Supervisor 32, RSP720-3C-GE, RSP720-3CXL-GE	Supervisor720-3B, Supervisor720-3BXL, Supervisor 32	Same as Cisco 7603-S	Same as Cisco 7603-S	Same as Cisco 7603-S
Forwarding Rate	Up to 30 Mpps	Up to 30 Mpps	Same as Cisco 7603-S	Same as Cisco 7603-S	Same as Cisco 7603-S
Backplane Capacity	240 Gbps	320 Gbps	480 Gbps	720 Gbps	720 Gbps
Flash PCMCIA Memory	up to 512MB	Same as Cisco 7603-S	Same as Cisco 7603-S	Same as Cisco 7603-S	Same as Cisco 7603-S
System DRAM Memory	512MB on Sup720-3B, 1G on Sup720-3BXL, 2G on RSP720-3CXL	Same as Cisco 7603-S	Same as Cisco 7603-S	Same as Cisco 7603-S	Same as Cisco 7603-S
Internal Power Supply	DC	AC or DC	Same as Cisco 7604	Same as Cisco 7604	Same as Cisco 7604
RPS Support	Yes	Yes	Same as Cisco 7603-S	Same as Cisco 7603-S	Same as Cisco 7603-S
Chassis Height	4-RU	5-RU	7-RU	20-RU	18-RU
Rack Mountable	Yes, up to 11 per rack	Yes, up to 9 per rack	Yes, up to 6 per rack	Yes, up to 2 per rack	Yes, up to 2 per rack
Dimensions (H x W x D)	7 x 17.37 x 20.3 in.	8.75 x 17.5 x 21.75 in.	12.25 x 17.37 x 21.75 in.	36.75 x 17.2 x 20.7 in.	33.3 x 17.2 x 18.1 in.

Selected Part Numbers and Ordering Information¹**Cisco 7609 Systems**

7609-RSP720C-P	Cisco 7609 Chassis,9-slot,RSP720-3C,PS
7609-RSP720C-R	Cisco 7609 Chassis,9-slot,Redundant System,2RSP720-3C,2PS
7609-RSP720CXL-P	Cisco 7609 Chassis,9-slot,RSP720-3CXL,PS
7609-RSP720CXL-R	Cisco 7609 Chassis,9-slot,Redundant System,2RSP720-3CXL,2PS
7609S-RSP720C-P	Cisco 7609S Chassis,9-slot,RSP720-3C,PS
7609S-RSP720C-R	Cisco 7609S Chassis,9-slot,Redundant System,2RSP720-3C,2PS
7609S-RSP720CXL-P	Cisco 7609S Chassis,9-slot,RSP720-3CXL,PS
7609S-RSP720CXL-R	Cisco 7609S Chassis,9-slot,Redundant System,2RSP720-3CXL,2PS
7609S-S32-10G-B-P	Cisco 7609S Chassis,9-slot,SUP32-2X10GE-3B,PS
7609S-S32-10G-B-R	Cisco 7609S Chassis,9-slot,Redundant SUP32-2X10GE-3B,PS
7609S-S32-8G-B-P	Cisco 7609S Chassis,9-slot,SUP32-8GE-3B,PS
7609S-S32-8G-B-R	Cisco 7609S Chassis,9-slot,Redundant SUP32-8GE-3B,PS
7609S-SUP720B-P	Cisco 7609S Chassis,9-slot,SUP720-3B,PS
7609S-SUP720B-R	Cisco 7609S Chassis,9-slot,Redundant System,2SUP720-3B,2PS
7609S-SUP720BXL-P	Cisco 7609S Chassis,9-slot,SUP720-3BXL,PS
7609S-SUP720BXL-R	Cisco 7609S Chassis,9-slot,Redundant System,2SUP720-3BXL,2PS
CISCO7609	Cisco 7609 Chassis

CISCO7609-S	Cisco 7609-S Chassis
CISCO7609-S=	Cisco 7609-S Chassis
CISCO7609/EHA1	Bundle: Cisco Enhanced Home Agent R1 for 7609 (300k Sessions)
CISCO7609=	Cisco 7609 Chassis Spare
7609-S323B-8G-P	Cisco 7609 Chassis, 9-slot, SUP32-8GE-3B, PS
7609-S323B-8G-R	Cisco 7609 Chassis, 9-slot, Redundant SUP32-8GE-3B and PS
7609-S323B-10G-P	Cisco 7609 Chassis, 9-slot, SUP32-2X10GE-3BB, PS
7609-S323B-10G-R	Cisco 7609 Chassis, 9-slot, Redundant SUP32-2X10GE-3B and PS
7609-SUP720XL-PS	Cisco 7609 9-slot, SUP720-3BXL and PS
7609-2SUP720XL-2PS	Cisco 7609 9-slot, Redundant System, 2 SUP720-3BXL and 2 PS
7609-SUP7203B-PS	Cisco 7609 Chassis, 9-slot, SUP7203B, Power Supply
7609-2SUP7203B-2PS	Cisco 7609 Chassis, 9-slot, 2 SUP7203B, 2 Power Supply
7609-VPN+-K9	Cisco 7609 IPsec VPN System Bundle
<i>Cisco 7606 Systems</i>	
7606-RSP720C-P	Cisco 7606 Chassis, 6-slot, RSP720-3C, PS
7606-RSP720C-R	Cisco 7606 Chassis, 6-slot, Redundant System, 2RSP720-3C, 2PS
7606-RSP720CXL-P	Cisco 7606 Chassis, 6-slot, RSP720-3CXL, PS
7606-RSP720CXL-R	Cisco 7606 Chassis, 6-slot, Redundant System, 2RSP720-3CXL, 2PS
CISCO7606	Cisco 7606 Chassis
7606-S323B-8G-P	Cisco 7606 Chassis, 6-slot, SUP32-8GE-3B, PS
7606-S323B-8G-R	Cisco 7606 Chassis, 6-slot, Redundant SUP32-8GE-3B and PS
7606-S323B-10G-P	Cisco 7606 Chassis, 6-slot, SUP32-2X10GE-3B, PS
7606-S323B-10G-R	Cisco 7606 Chassis, 6-slot, Redundant SUP32-2X10GE-3B and PS
7606-SUP720XL-PS	Cisco 7606 6-slot, SUP720-3BXL and PS
7606-2SUP720XL-2PS	Cisco 7606 6-slot, Redundant System, 2 SUP720-3BXL and 2 PS
7606-SUP7203B-PS	Cisco 7606 Chassis, 6-slot, SUP7203B, Power Supply
7606-2SUP7203B-2PS	Cisco 7606 Chassis, 6-slot, 2 SUP7203B, 2 Power Supply
CISCO7606=	7606 chassis spare
CISCO7606-CHASS	Cisco 7606 Chassis
7606-VPN+-K9	Cisco 7606 IPsec VPN System Bundle
<i>Cisco 7604 Systems</i>	
CISCO7604	Cisco 7604 Chassis
7604-RSP720C-P	Cisco 7604 Chassis, 4-slot, RSP720-3C, PS
7604-RSP720C-R	Cisco 7604 Chassis, 4-slot, Redundant System, 2RSP720-3C, 2PS
7604-RSP720CXL-P	Cisco 7604 Chassis, 4-slot, RSP720-3CXL, PS
7604-RSP720CXL-R	Cisco 7604 Chassis, 4-slot, Redundant System, 2RSP720-3CXL, 2PS
CISCO7604=	Cisco 7604 Chassis Spare
7604-S323B-8G-P	Cisco 7604 Chassis, 4-slot, SUP32-8GE-3B, PS
7604-S323B-8G-R	Cisco 7604 Chassis, 4-slot, Redundant SUP32-8GE-3B and PS
7604-S323B-10G-P	Cisco 7604 Chassis, 4-slot, SUP32-2X10GE-3B, PS
7604-S323B-10G-R	Cisco 7604 Chassis, 4-slot, Redundant SUP32-2X10GE-3B and PS
7604-SUP7203B-PS	Cisco 7604 Chassis, 4-slot, SUP720-3B, PS
7604-2SUP7203B-2PS	Cisco 7604 Chassis, 4-slot, 2 SUP720-3B, 2 PS
7604-SUP720XL-PS	Cisco 7604 chassis, 4-slot, SUP720-3BXL, PS
7604-2SUP720XL-2PS	Cisco 7604 Chassis, 4-slot, 2SUP720-3BXL, 2 PS
7604-VPN+-K9	Cisco 7604 IPsec VPN System Bundle
<i>Cisco 7603 Systems</i>	
7603S-S32-10G-B-P	Cisco 7603S Chassis, 3-slot, SUP32-2X10GE-3B, PS
7603S-S32-8G-B-P	Cisco 7603S Chassis, 3-slot, SUP32-8GE-3B, PS
CISCO7603-S	Cisco 7603-S Chassis
CISCO7603-S=	Cisco 7603-S Chassis Spare
<i>Cisco 7613 Systems</i>	
7613-RSP720C-P	Cisco 7613 Chassis, 13-slot, RSP720-3C, PS
7613-RSP720C-R	Cisco 7613 Chassis, 13-slot, Redundant System, 2RSP720-3C, 2PS
7613-RSP720CXL-P	Cisco 7613 Chassis, 13-slot, RSP720-3CXL, PS
7613-RSP720CXL-R	Cisco 7613 Chassis, 13-slot, Redundant System, 2RSP720-3CXL, 2PS
CISCO7613	Cisco 7613 Chassis
CISCO7613/EHA1	Bundle: Cisco Enhanced Home Agent R1 for 7613 (600k Sessions)
CISCO7613=	Spare CISCO7613 Chassis, equipped with High-speed FAN2
7613-S323B-8G-P	Cisco 7613 Chassis, 13-slot, SUP32-8GE-3B, PS
7613-S323B-8G-R	Cisco 7613 Chassis, 13-slot, Redundant SUP32-8GE-3B and PS
7613-S323B-10G-P	Cisco 7613 Chassis, 13-slot, SUP32-2X10GE-3B, PS
7613-S323B-10G-R	Cisco 7613 Chassis, 13-slot, Redundant SUP32-2X10GE-3B and PS
7613-SUP720XL-PS	Cisco 7613 13-slot, SUP720-3BXL and PS
7613-2SUP720XL-2PS	Cisco 7613 13-slot, Redundant System, 2 SUP720-3BXL and 2 PS
7613-SUP7203B-PS	Cisco 7613 Chassis, 13-slot, SUP7203B, Power Supply
7613-2SUP7203B-2PS	Cisco 7613 Chassis, 13-slot, 2 SUP7203B, 2 Power Supply
7613-VPN+-K9	Cisco 7613 IPsec VPN System Bundle
<i>Cisco 7600 Ethernet Services Modules</i>	

7600-ES20-GE3C	7600 ES20 Line Card, 20xGE SFP with DFC 3C
7600-ES20-GE3C=	7600 ES20 Line Card, 20xGE SFP with DFC 3C
7600-ES20-GE3CXL	7600 ES20 Line Card, 20xGE SFP with DFC 3CXL
7600-ES20-GE3CXL=	7600 ES20 Line Card, 20xGE SFP with DFC 3CXL
7600-ES20-10G3C	7600 ES20 Line Card, 2x10GE XFP with DFC 3C
7600-ES20-10G3C=	7600 ES20 Line Card, 2x10GE XFP with DFC 3C
7600-ES20-10G3CXL=	7600 ES20 Line Card, 2x10GE XFP with DFC 3CXL
7600-ES20-10G3CXL	7600 ES20 Line Card, 2x10GE XFP with DFC 3CXL
<i>Cisco 7600 Shared Port Adapters and SPA Interface</i>	
7600-SIP-200	Cisco 7600 Series SPA Interface Processor-200
SPA-24CHT1-CE-ATM	24 Port Channelized T1/E1/J1 ATM and Circuit Emulation SPA
SPA-1CHOC3-CE-ATM=	1 Port Channelized OC3/STM-1 ATM and Circuit Emulation SPA
7600-SIP-200=	Cisco 7600 Series SPA Interface Processor-200
SPA-24CHT1-CE-ATM=	24 Port Channelized T1/E1/J1 ATM and Circuit Emulation SPA
7600-SIP-400	Cisco 7600 Series SPA Interface Processor-400
7600-SIP-400=	Cisco 7600 Series SPA Interface Processor-400
7600-SIP-600	Cisco 7600 Series SPA Interface Processor-600
7600-SIP-600=	Cisco 7600 Series SPA Interface Processor-600
7600-SSC-400	Cisco 7600 / Catalyst 6500 Services SPA Carrier Card
7600-SSC-400=	Cisco 7600 / Catalyst 6500 Services SPA Carrier Card
SPA-2XOC3-ATM	2-port OC-3c/STM-1 ATM Shared Port Adapter
SPA-2XOC3-ATM=	2-port OC-3c/STM-1 ATM Shared Port Adapter
SPA-2XOC3-POS	2-port OC3/STM1 POS Shared Port Adapters
SPA-2XOC3-POS=	2-port OC3/STM1 POS Shared Port Adapters
SPA-4XOC3-ATM	4-port OC-3c/STM-1 ATM Shared Port Adapter
SPA-4XOC3-ATM=	4-port OC-3c/STM-1 ATM Shared Port Adapter
SPA-1XCHSTM1/OC3	1-port Channelized STM-1/OC-3c to DS0 Shared Port Adapter
SPA-1XCHSTM1/OC3=	1-port Channelized STM-1/OC-3c to DS0 Shared Port Adapter
SPA-1XOC12-POS	1-port OC12/STM4 POS Shared Port Adapters
SPA-1XOC12-POS=	1-port OC12/STM4 POS Shared Port Adapters
SPA-1XOC12-ATM	1-port OC-12c/STM-4 ATM Shared Port Adapter
SPA-1XOC12-ATM=	1-port OC-12c/STM-4 ATM Shared Port Adapter
SPA-1XOC48POS/RPR	1-port OC48/STM16 POS/RPR Shared Port Adapters
SPA-1XOC48POS/RPR=	1-port OC48/STM16 POS/RPR Shared Port Adapters
SPA-2XOC48POS/RPR	2-port OC48/STM16 POS/RPR Shared Port Adapters
SPA-2XOC48POS/RPR=	2-port OC48/STM16 POS/RPR Shared Port Adapters
SPA-2X1GE-V2	Cisco 2-Port Gigabit Ethernet Shared Port Adapter
SPA-2X1GE-V2=	Cisco 2-Port Gigabit Ethernet Shared Port Adapter
SPA-2XT3/E3	2-port Clear Channel T3/E3 Shared Port Adapter
SPA-2XT3/E3=	2-port Clear Channel T3/E3 Shared Port Adapter
SPA-4XT3/E3	4-port Clear Channel T3/E3 Shared Port Adapter
SPA-4XT3/E3=	4-port Clear Channel T3/E3 Shared Port Adapter
SPA-4X1FE-TX-V2	Cisco 4-Port Fast Ethernet (TX) Shared Port Adapter
SPA-4X1FE-TX-V2=	Cisco 4-Port Fast Ethernet (TX) Shared Port Adapter
SPA-2XCT3/DS0	2-port Channelized T3 to DS0 Shared Port Adapter
SPA-2XCT3/DS0=	2-port Channelized T3 to DS0 Shared Port Adapter
SPA-4XCT3/DS0	4-port Channelized T3 to DS0 Shared Port Adapter
SPA-4XCT3/DS0=	4-port Channelized T3 to DS0 Shared Port Adapter
SPA-4XOC48POS/RPR	4-port OC48/STM16 POS/RPR Shared Port Adapters
SPA-4XOC48POS/RPR=	4-port OC48/STM16 POS/RPR Shared Port Adapters
SPA-1XOC48-ATM	Cisco 1-port OC-48c/STM-16 ATM Shared Port Adapter
SPA-1XOC48-ATM=	Cisco 1-port OC-48c/STM-16 ATM Shared Port Adapter
SPA-1XTENGE-XFP	1-port 10Gigabit Ethernet Shared Port Adapter XFP based
SPA-1XTENGE-XFP=	1-port 10Gigabit Ethernet Shared Port Adapter XFP based
SPA-2X1GE	Cisco 2-port Gigabit Ethernet Shared Port Adapter
SPA-2X1GE=	Cisco 2-port Gigabit Ethernet Shared Port Adapter
SPA-5X1GE	5-port Gigabit Ethernet Shared Port Adapter
SPA-5X1GE=	5-port Gigabit Ethernet Shared Port Adapter
SPA-5X1GE-V2	Cisco 5-Port Gigabit Ethernet Shared Port Adapter
SPA-5X1GE-V2=	Cisco 5-Port Gigabit Ethernet Shared Port Adapter
SPA-8XCHT1/E1	8-port Channelized T1/E1 to DS0 Shared Port Adapter
SPA-8XCHT1/E1=	8-port Channelized T1/E1 to DS0 Shared Port Adapter
SPA-8X1FE-TX-V2	Cisco 8-Port Fast Ethernet (TX) Shared Port Adapter
SPA-8X1FE-TX-V2=	Cisco 8-Port Fast Ethernet (TX) Shared Port Adapter
SPA-10X1GE	10-port Gigabit Ethernet Shared Port Adapter
SPA-10X1GE=	10-port Gigabit Ethernet Shared Port Adapter
SPA-IPSEC-2G	Cisco 7600 / Catalyst 6500 IPsec VPN SPA - DES/3DES/AES
SPA-IPSEC-2G=	Cisco 7600 / Catalyst 6500 IPsec VPN SPA - DES/3DES/AES
SPA-BLANK	Blank Cover for regular SPA

SPA-BLANK=	Blank Cover for regular SPA
SPA-OC192POS-LR	1-port OC192/STM64 POS/RPR SMLR Optics
SPA-OC192POS-LR=	1-port OC192/STM64 POS/RPR SMLR Optics
SPA-OC192POS-VSR	1-port OC192/STM64 POS/RPR VSR Optics
SPA-OC192POS-VSR=	1-port OC192/STM64 POS/RPR VSR Optics
SPA-OC192POS-XFP	1-port OC192/STM64 POS/RPR XFP Optics
SPA-OC192POS-XFP=	1-port OC192/STM64 POS/RPR XFP Optics
SFP-OC48-IR1	OC-48c/STM-16c
SFP-OC48-LR2	OC-48c/STM-16c SFP, Long Reach (80km)
SFP-OC48-SR	OC-48c/STM-16c SFP, Short Reach
<i>Cisco 7600 Common Equipment</i>	
RSP720-3C-GE=	Cisco 7600 Route Switch Processor 720Gbps fabric, PFC3C, GE
RSP720-3CXL-GE=	Cisco 7600 Route Switch Processor 72Gbps fabric, PFC3CXL, GE
WS-SUP32-GE-3B	Catalyst 6500 Supervisor 32 with 8 GE uplinks and PFC3B
WS-SUP32-GE-3B=	Catalyst 6500 Supervisor 32 with 8 GE uplinks and PFC3B
WS-SUP32-10GE-3B	Cat 6500 Supervisor 32 with 2 ports 10GbE and PFC3B
WS-SUP32-10GE-3B=	Cat 6500 Supervisor 32 with 2 ports 10GbE and PFC3B
WS-SUP720-3B	Catalyst 6500/Cisco 7600 Supervisor 720 Fabric MSFC3 PFC3B
WS-SUP720-3B=	Catalyst 6500/Cisco 7600 Supervisor 720 Fabric MSFC3 PFC3B
WS-SUP720-3BXL	Catalyst 6500/Cisco 7600 Supervisor 720 Fabric MSFC3 PFC3BXL
WS-SUP720-3BXL=	Catalyst 6500/Cisco 7600 Supervisor 720 Fabric MSFC3 PFC3BXL
WS-F6700-DFC3BXL	Catalyst 6500 Dist Fwd Card- 3BXL, for WS-X67xx
WS-F6700-DFC3BXL=	Catalyst 6500 Dist Fwd Card- 3BXL, for WS-X67xx
WS-F6700-DFC3B	Catalyst 6500 Dist Fwd Card, 256K Routes for WS-X67xx
WS-F6700-DFC3B=	Catalyst 6500 Dist Fwd Card, 256K+ Routes for WS-X67xx
WS-F6K-DFC3B	Catalyst 6500 Dist Fwd Card-3B for 65xx, 6816 modules
WS-F6K-DFC3B=	Catalyst 6500 Dist Fwd Card-3B for 65xx, 6816 modules
WS-F6K-DFC3BXL	Catalyst 6500 Dist Fwd Card-3BXL for 65xx, 6816 modules
WS-F6K-DFC3BXL=	Catalyst 6500 Dist Fwd Card-3BXL for 65xx, 6816 modules
WS-F6K-PFC3B	Catalyst 6500 Sup720 Policy Feature Card-3B
WS-F6K-PFC3B=	Catalyst 6500 Sup720 Policy Feature Card-3B
WS-F6K-PFC3BXL=	Sup720 PFC-3BXL Plus 2x1Gig Mem
WS-F6700-DFC3C	Catalyst 6500 Dist Fwd Card for WS-X67xx modules
WS-F6700-DFC3CXL	Catalyst 6500 Dist Fwd Card- 3CXL, for WS-X67xx
<i>Cisco 7600 Optical Services Modules (OSMs)</i>	
OSM-1CHOC12/T1-SI	1-port CHOC-12/CHSTM-4 (SM-IR), to DS0 and T1/E1, w/4GE
OSM-1CHOC12/T1-SI=	1-port CHOC-12/CHSTM-4 OSM IR, to DS0 and T1/E1, w/4GE
OSM-12CT3/T1	12-port Channelized DS-3 to DS-1/DS-0
OSM-12CT3/T1=	12-port Channelized DS-3 to DS-1/DS-0
OSM-1CHOC12/T3-SI	1-port CHOC-12/CHSTM-4 OSM, to T3/E3, SM-IR, with 4 GE
OSM-1CHOC12/T3-SI=	1-port CHOC-12/CHSTM-4 OSM, to T3/E3, SM-IR, with 4 GE
OSM-20C48/1DPT-SS	2-port OC-48/STM-16 POS/DPT OSM, SM-SR, with 4 GE
OSM-20C48/1DPT-SS=	2-port OC-48/STM-16 POS/DPT OSM, SM-SR, with 4 GE
OSM-20C48/1DPT-SI	2-port OC-48/STM-16 POS/DPT OSM, SM-IR, with 4 GE
OSM-20C48/1DPT-SI=	2-port OC-48/STM-16 POS/DPT OSM, SM-IR, with 4 GE
OSM-20C48/1DPT-SL	2-port OC-48/STM-16 POS/DPT OSM, SM-LR, with 4 GE
OSM-20C48/1DPT-SL=	2-port OC-48/STM-16 POS/DPT OSM, SM-LR, with 4 GE
OSM-10C48-POS-SS+	Enhanced 1-port OC-48/STM-16 SONET/SDH OSM, SM-SR, w/ 4 GE
OSM-10C48-POS-SS+=	Enhanced 1-port OC-48/STM-16 SONET/SDH OSM, SM-SR, w/ 4 GE
OSM-10C48-POS-SI+	Enhanced 1-port OC-48/STM-16 SONET/SDH OSM, SM-IR, w/ 4 GE
OSM-10C48-POS-SI+=	Enhanced 1-port OC-48/STM-16 SONET/SDH OSM, SM-IR, w/ 4 GE
OSM-10C48-POS-SL+	Enhanced 1-port OC-48/STM-16 SONET/SDH OSM, SM-LR, w/ 4 GE
OSM-10C48-POS-SL+=	Enhanced 1-port OC-48/STM-16 SONET/SDH OSM, SM-LR, w/ 4 GE
OSM-2+4GE-WAN+	Enhanced OSM with 4 GE WAN ports and 2 GE LAN ports
OSM-2+4GE-WAN+=	Enhanced OSM with 4 GE WAN ports and 2 GE LAN ports, Spare
OSM-2+4GE-5PACK+	5 Pack of OSM-2+4GE-WAN+
<i>Cisco 7600 FlexWAN Module*</i>	
PA-POS-10C3-2PAK=	Packet over Sonet OC3 2 PACK Bundle
WS-X6582-2PA	Cisco7600/Catalyst6500 Enhanced FlexWAN, Fabric-enabled
WS-X6582-2PA=	Cisco7600/Catalyst6500 Enhanced FlexWAN, Fabric-enabled
PA-4T+	4 Port Serial Port Adapter, Enhanced
PA-4T+=	4-Port Serial Port Adapter, Enhanced
PA-8T-V35	8-Port Serial, V.35 Port Adapter
PA-8T-V35=	8-Port Serial, V.35 Port Adapter
PA-8T-232	8-Port Serial, 232 Port Adapter
PA-8T-232=	8-Port Serial, 232 Port Adapter
PA-8T-X21	8-Port Serial, X.21 Port Adapter
PA-8T-X21=	8-Port Serial, X.21 Port Adapter
PA-H	1-Port HSSI Port Adapter

PA-H=	1-Port HSSI Port Adapter, Spare
PA-H=	1-Port HSSI Port Adapter, Spare
PA-2H	2-Port HSSI Port Adapter
PA-2H=	2-Port HSSI Port Adapter, Spare
PA-2H=	2-Port HSSI Port Adapter, Spare
PA-A3-8E1IMA	8-port ATM Inverse Mux E1 (120 Ohm) Port Adapter
PA-A3-8E1IMA=	8-port ATM Inverse Mux E1 (120 Ohm) Port Adapter, Spare
PA-A3-8T1IMA	8-port ATM Inverse Mux T1 Port Adapter
PA-A3-8T1IMA=	8-port ATM Inverse Mux T1 Port Adapter, Spare
PA-A6-OC3MM	1 Port Enh ATM OC3c/STM1 Multimode Port Adapter
PA-A6-OC3MM=	1 Port Enh ATM OC3c/STM1 Multimode Port Adapter
PA-A6-OC3SML	1 Port Enh ATM OC3c/STM1 Singlemode(LR)Port Adapter
PA-A6-OC3SML=	1 Port Enh ATM OC3c/STM1 Singlemode(LR)Port Adapter
PA-A6-T3	1Port Enh ATM DS3 Port Adapter
PA-A6-T3=	1Port Enh ATM DS3 Port Adapter
PA-A6-E3	1Port Enh ATM E3 Port Adapter
PA-A6-E3=	1Port Enh ATM E3 Port Adapter
PA-E3	1 Port E3 Serial Port Adapter with E3 DSU
PA-E3=	1 Port E3 Serial Port Adapter with E3 DSU
PA-2E3	2 Port E3 Serial Port Adapter with E3 DSUs
PA-2E3=	2 Port E3 Serial Port Adapter with E3 DSUs
PA-T3+	1 Port T3 Serial Port Adapter Enhanced
PA-T3+=	1 Port T3 Serial Port Adapter Enhanced
PA-2T3+	2 Port T3 Serial Port Adapter Enhanced
PA-2T3+=	2 Port T3 Serial Port Adapter Enhanced, Spare
PA-MC-E3	1 port Multi-Channel E3 port adapter
PA-MC-E3=	1 port Multi-Channel E3 port adapter
PA-MC-T3	1 port multichannel T3 port adapter
PA-MC-T3=	1 port multichannel T3 port adapter
PA-MC-2E1/120	2 port multichannel E1 port adapter with G.703 120ohm interf
PA-MC-2E1/120=	2 port multichannel E1 port adapter with G.703 120ohm interf
PA-MC-2T3+	2 port multichannel T3 port adapter
PA-MC-2T3+=	2 port multichannel T3 port adapter
PA-MC-2T1	2 port multichannel T1 port adapter with integrated CSU/DSUs
PA-MC-2T1=	2 port multichannel T1 port adapter with integrated CSU/DSUs
PA-MC-4T1	4 port multichannel T1 port adapter with integrated CSU/DSUs
PA-MC-4T1=	4 port multichannel T1 port adapter with integrated CSU/DSUs
PA-POS-10C3	1 Port Packet/SONET OC3c/STM1 Port Adapter
PA-POS-10C3=	1 Port Packet/SONET OC3c/STM1 Port Adapter
PA-POS-20C3	2 Port Packet/SONET OC3c/STM1 Port Adapter
PA-POS-20C3=	2 Port Packet/SONET OC3c/STM1 Port Adapter
PA-MC-STM-1MM	1 port multichannel STM-1multimode port adapter
PA-MC-STM-1MM=	1 port multichannel STM-1multimode port adapter
PA-MC-STM-1SMI	1 port multichannel STM-1 single mode port adapter
PA-MC-STM-1SMI=	1 port multichannel STM-1 single mode port adapter
PA-MC-8TE1+	8 port multichannel T1/E1 8PRI port adapter
PA-MC-8TE1+=	8 port multichannel T1/E1 8PRI port adapter
<i>Cisco 7600 Ethernet Modules</i>	
WS-X6548V-GE-TX	Catalyst 6500 48-port fab-enabled 10/100/1000 inline pwr mod
WS-X6548V-GE-TX=	Catalyst 6500 48-port fab-enabled 10/100/1000 inline pwr mod
WS-X6548-GE-TX	Catalyst 6500 48-port fabric-enabled 10/100/1000 Module
WS-X6548-GE-TX=	Catalyst 6500 48-port fabric-enabled 10/100/1000 Module
WS-X6548-GE-45AF	Cat 6500 PoE 802.3af 10/100/1000 48-port(RJ45)/CEF256 card
WS-X6548-GE-45AF=	Cat 6500 PoE 802.3af 10/100/1000 48-port(RJ45)/CEF256 card
WS-X6524-100FX-MM	Catalyst 6500 24-port 100FX, MT-RJ, fabric-enabled
WS-X6524-100FX-MM=	Catalyst 6500 24-port 100FX, MT-RJ, fabric-enabled
WS-X6408A-GBIC	Catalyst 6000 8-port GE, Enhanced QoS (Req. GBICs)
WS-X6408A-GBIC=	Catalyst 6000 8-port GE, Enhanced QoS (Req. GBICs)
WS-X6196-RJ-21	Catalyst 6500 96-Port 10/100 Upgradable - PoE 802.3af
WS-X6196-RJ-21=	Catalyst 6500 96-Port 10/100 Upgradable - PoE 802.3af
WS-X6196-21AF	Cat6500 96-Port, PoE 802.3af 10/100 - RJ-21
WS-X6196-21AF=	Cat6500 96-Port, PoE 802.3af 10/100 - RJ-21
WS-X6148X2-RJ-45	Cat6500 96-Port 10/100 (RJ45), Upgradable to PoE 802.3af
WS-X6148X2-RJ-45=	Cat6500 96-Port 10/100 (RJ45), Upgradable to PoE 802.3af
WS-X6148X2-45AF	Cat6500 PoE 802.3af 10/100, 96-Port (RJ-45) line card
WS-X6148X2-45AF=	Cat6500 PoE 802.3af 10/100, 96-Port (RJ-45) line card
WS-X6148V-GE-TX	Catalyst 6500 48-port 10/100/1000 Inline Power Module, RJ-45
WS-X6148V-GE-TX=	Catalyst 6500 48-port 10/100/1000 Inline Power Module, RJ-45
WS-X6148-RJ45V	Catalyst 6500 48-port 10/100 Inline Power, RJ-45

WS-X6148-RJ45V=	Catalyst 6500 48-port 10/100 Inline Power, RJ-45
WS-X6148-RJ-45	Catalyst 6500 48-Port 10/100, Upgradable to Voice, RJ-45
WS-X6148-RJ-45=	Catalyst 6500 48-Port 10/100, Upgradable to Voice, RJ-45
WS-X6148-RJ21V	Catalyst 6500 48-port 10/100 Inline Power Module, RJ-21
WS-X6148-RJ21V=	Catalyst 6500 48-port 10/100 Inline Power Module, RJ-21
WS-X6148-RJ-21	Catalyst 6500 48-Port 10/100 Upgradable to Voice, RJ-21
WS-X6148-RJ-21=	Catalyst 6500 48-Port 10/100 Upgradable to Voice, RJ-21
WS-X6148-GE-TX	Catalyst 6500 48-port 10/100/1000 GE Mod., RJ-45
WS-X6148-GE-TX=	Catalyst 6500 48-port 10/100/1000 GE Mod., RJ-45
WS-X6148-GE-45AF	Cat6500 PoE 802.3af 10/100/1000, 48 port(RJ45)line card
WS-X6148-GE-45AF=	Cat6500 PoE 802.3af 10/100/1000, 48 port (RJ45) line card
WS-X6148-FE-SFP	Catalyst 6500 48 port 100Base-X module (require SFP)
WS-X6148-FE-SFP=	Catalyst 6500 48 port 100Base-X module (require SFP)
WS-X6148A-RJ-45	Catalyst 6500 48-Port 10/100 w/TDR, Upgradable - PoE 802.3af
WS-X6148A-RJ-45=	Catalyst 6500 48-Port 10/100 w/TDR, Upgradable - PoE 802.3af
WS-X6148A-GE-TX	Catalyst 6500 48-port 10/100/1000 w/Jumbo Frame, RJ-45
WS-X6148A-GE-TX=	Catalyst 6500 48-port 10/100/1000 w/Jumbo Frame, RJ-45
WS-X6148A-GE-45AF	Catalyst 6500 48-Port PoE 802.3af 10/100/1000, w/Jumbo Frame
WS-X6148A-GE-45AF=	Catalyst 6500 48-Port PoE 802.3af 10/100/1000, w/Jumbo Frame
WS-X6148A-45AF	Catalyst 6500 48-Port PoE 802.3af 10/100,card w/TDR
WS-X6148A-45AF=	Catalyst 6500 48-Port PoE 802.3af 10/100,card w/TDR
WS-X6148-45AF	Catalyst 6500 PoE 802.3af 10/100, 48 port(RJ45) line card
WS-X6148-45AF=	Catalyst 6500 PoE 802.3af 10/100, 48 port(RJ45) line card
WS-X6148-21AF	Cat6500 PoE 802.3af 10/100, 48 port (RJ21) line card
WS-X6148-21AF=	Cat6500 PoE 802.3af 10/100, 48 port (RJ21) line card
WS-F6K-DFC	Dist Fwd Card for 65xx, 6816 Modules used with SUP
WS-F6K-DFC=	Dist Fwd Card for 65xx, 6816 Modules used with SUP2
WS-X6516A-GBIC	Catalyst 6500 16-port GigE Mod, fabric-enabled (Req. GBICs)
WS-X6516A-GBIC=	Catalyst 6500 16-port GigE Mod, fabric-enabled (Req. GBICs)
WS-X6816-GBIC	Cat6500 16-port GigE mod, 2 fab I/F, (Req GBICs, DFC/DFC3)
WS-X6816-GBIC=	Cat6500 16-port GigE mod, 2 fab I/F, (Req GBICs, DFC/DFC3)
WS-X6548-RJ-21	Catalyst 6500 48-port 10/100, RJ-21, fabric-enabled
WS-X6548-RJ-21=	Catalyst 6500 48-port 10/100, RJ-21, fabric-enabled
WS-X6548-RJ-45	Catalyst 6500 48-port 10/100, RJ-45, x-bar
WS-X6548-RJ-45=	Catalyst 6500 48-port 10/100, RJ-45, x-bar
WS-X6516-GE-TX	Catalyst 6500 16-port 10/100/1000 GE Module, Cross-Bar
WS-X6516-GE-TX=	Catalyst 6500 16-port 10/100/1000 GE Module, Cross-Bar,spare
WS-X6748-GE-TX	Cat6500 48-port 10/100/1000 GE Mod: fabric enabled, RJ-45
WS-X6748-GE-TX=	Cat6500 48-port 10/100/1000 GE Mod: fabric enabled, RJ-45
WS-X6724-SFP	Catalyst 6500 24-port GigE Mod: fabric-enabled (Req. SFPs)
WS-X6724-SFP=	Catalyst 6500 24-port GigE Mod: fabric-enabled (Req. SFPs)
WS-X6748-SFP	Catalyst 6500 48-port GigE Mod: fabric-enabled (Req. SFPs)
WS-X6748-SFP=	Catalyst 6500 48-port CEF720 GigE Module (Req. SFPs)
WS-X6704-10GE	Cat6500 4-port 10 Gigabit Ethernet Module (req. XENPAKs)
WS-X6704-10GE=	Cat6500 4-port 10 Gigabit Ethernet Module (req. XENPAKs)
<i>Cisco 7600 Services Modules</i>	
SPA-IPSEC-2G	Cisco 7600 / Catalyst 6500 IPsec VPN SPA - DES/3DES/AES
SPA-IPSEC-2G=	Cisco 7600 / Catalyst 6500 IPsec VPN SPA - DES/3DES/AES
SPA-IPSEC-SSC400-1	Cisco 6500/7600 IPsec VPN SPA Bundle 1 (system only)
SPA-IPSEC-SSC400-2	Cisco 6500/7600 IPsec VPN SPA Bundle 2 (system only)
WS-SVC-ADM-1-K9	Catalyst 6500 Cisco Anomaly Detection Module
WS-SVC-ADM-1-K9=	Catalyst 6500 Cisco Anomaly Detection Module
WS-SVC-AGM-1-K9	Catalyst 6500 Cisco Anomaly Guard Module
WS-SVC-AGM-1-K9=	Catalyst 6500 Cisco Anomaly Guard Module
WS-SVC-CMM	COMMUNICATION MEDIA MODULE
WS-SVC-CMM-24FXS	24-Port FXS Interface Port Adapter
WS-SVC-CMM-24FXS=	24-Port FXS Interface Port Adapter
WS-SVC-CMM-6E1	6-PORT E1 INTERFACE PORT ADAPTER
WS-SVC-CMM-6E1=	6-PORT E1 INTERFACE PORT ADAPTER
WS-SVC-CMM-6T1	6-PORT T1 INTERFACE PORT ADAPTER
WS-SVC-CMM-6T1=	6-PORT T1 INTERFACE PORT ADAPTER
WS-SVC-CMM-ACT	Adhoc Conferencing and Transcoding PA
WS-SVC-CMM-ACT=	Adhoc Conferencing and Transcoding PA
WS-SVC-CMM-BLANK	CMM module Blank Panel Cover
WS-SVC-CMM-BLANK=	CMM module Blank Panel Cover
WS-SVC-CMM=	COMMUNICATION MEDIA MODULE
WS-SVC-IDS2-BUN-K9	600M IDS2-2 Mod for Cat
WS-SVC-IDS2BUNK9=	600M IDS2-2 Mod Spare
WS-SVC-FWM-1-K9	Firewall blade for 6500 and 7600, VFW License Separate

WS-SVC-FWM-1-K9=	Firewall blade for 6500 and 7600, VFW License Separate
WS-SVC-NAM-1	Catalyst 6500 Network Analysis Module-1
WS-SVC-NAM-1=	Catalyst 6500 Network Analysis Module-1
WS-SVC-NAM-2	Catalyst 6500 Network Analysis Module-2
WS-SVC-NAM-2=	Catalyst 6500 Network Analysis Module
WS-SVC-PSD-1	Persistent Storage Device
WS-SVC-PSD-1=	Persistent Storage Device
WS-X6066-SLB-APC	Catalyst 6000 Content Switching Module
WS-X6066-SLB-APC=	Catalyst 6500/7600 Content Switching Module
WS-X6066-SLB-S-K9	Content Switching Module with SSL daughter card
WS-X6066-SLB-S-K9=	Content Switching Module with SSL daughter card
WS-SVC-SSL-1-K9	SSL Module for Catalyst 6500
WS-SVC-SSL-1-K9=	SSL Module for Catalyst 6500
WS-SVC-SSL-CSM-K9=	Catalyst 6500 SSL and CSM Bundle
WS-SVC-MWAM-1	Multi-Processor WAN Application Module
WS-SVC-MWAM-1=	Multi-Processor WAN Application Module
WS-SVC-CSG-1	Content Services Gateway
WS-SVC-CSG-1=	Content Services Gateway
WS-SVC-WEBVPN-K9	SSL VPN Module for Catalyst 6500
WS-SVC-WEBVPN-K9=	SSL VPN Module for Catalyst 6500
SC-ADM-4.0-K9	Cisco Traffic Anomaly Detector Module MVP-OS R4.0 Software
SC-SBC-NAP-CSG-1	No App Image For WS-SVC-CSG-1=
<i>Cisco 7600 GBICs, Optics and Xenpaks</i>	
WS-G5484	1000BASE-SX Short Wavelength GBIC (Multimode only)
WS-G5484=	1000BASE-SX Short Wavelength GBIC (Multimode only)
WS-G5486	1000BASE-LX/LH long haul GBIC (singlemode or multimode)
WS-G5486=	1000BASE-LX/LH long haul GBIC (singlemode or multimode)
WS-G5487	1000Base-ZX extended reach GBIC(singlemode)
WS-G5487=	1000Base-ZX extended reach GBIC(singlemode)
CWDM-GBIC-1470=	1000BASE-CWDM 1470 nm GBIC (single mode only)
CWDM-GBIC-1490=	1000BASE-CWDM 1490 nm GBIC (single mode only)
CWDM-GBIC-1510=	1000BASE-CWDM 1510 nm GBIC (single mode only)
CWDM-GBIC-1530=	1000BASE-CWDM 1530 nm GBIC (single mode only)
CWDM-GBIC-1550=	1000BASE-CWDM 1550 nm GBIC (single mode only)
CWDM-GBIC-1570=	1000BASE-CWDM 1570 nm GBIC (single mode only)
CWDM-GBIC-1590=	1000BASE-CWDM 1590 nm GBIC (single mode only)
CWDM-GBIC-1610=	1000BASE-CWDM 1610 nm GBIC (single mode only)
CWDM-MUX8A=	8-channels CWDM MUX/DEMUX Module
CWDM-OADM1-1470=	Dual single channel OADM Module (1470nm)
CWDM-OADM1-1490=	Dual single channel OADM Module (1490nm)
CWDM-OADM1-1510=	Dual single channel OADM Module (1510nm)
CWDM-OADM1-1530=	Dual single channel OADM Module (1530nm)
CWDM-OADM1-1550=	Dual single channel OADM Module (1550nm)
CWDM-OADM1-1570=	Dual single channel OADM Module (1570nm)
CWDM-OADM1-1590=	Dual single channel OADM Module (1590nm)
CWDM-OADM1-1610=	Dual single channel OADM Module (1610nm)
CWDM-OADM4-1=	4-channels CWDM OADM Module (1470, 1490, 1510, 1530)
CWDM-OADM4-2=	4-channels CWDM OADM Module (1550, 1570, 1590, 1610nm)
WDM-1300-1550-S=	1300nm/1550nm WDM splitter cable
CWDM-CHASSIS-2=	2 Slot Chassis for CWDM Mux Plug in Modules
XENPAK-10GB-CX4	Cisco 10GBASE-CX4 XENPAK Module
XENPAK-10GB-LR	10GBASE-LR XENPAK Module
XENPAK-10GB-LR=	10GBASE-LR XENPAK module
XENPAK-10GB-LX4	10GBASE-LX4 XENPAK Module
XENPAK-10GB-LX4=	10GBASE-LX4 XENPAK Module
XENPAK-10GB-SR	10GBASE-SR XENPAK Module
XENPAK-10GB-SR=	10GBASE-SR XENPAK Module
XENPAK-10GB-ZR	10GBASE-ZR XENPAK Module
XENPAK-10GB-ZR=	10GBASE-ZR XENPAK Module
GLC-LH-SM	GE SFP, LC connector LX/LH transceiver
GLC-LH-SM=	GE SFP,LC connector LX/LH transceiver
GLC-SX-MM	GE SFP, LC connector SX transceiver
GLC-SX-MM=	GE SFP, LC connector SX transceiver
GLC-SX-MM24	24 GLC-SX-MM SFP
GLC-ZX-SM	1000BASE-ZX SFP
GLC-ZX-SM=	1000BASE-ZX SFP
GLC-T	1000BASE-T SFP
GLC-T=	1000BASE-T SFP
GLC-T24	24 GLC-T SFP

SFP-GE-L	1000BASE-LX/LH SFP (DOM)
SFP-GE-L=	1000BASE-LX/LH SFP (DOM)
SFP-GE-S	1000BASE-SX SFP (DOM)
SFP-GE-S=	1000BASE-SX SFP (DOM)
SFP-GE-Z	1000BASE-ZX Gigabit Ethernet SFP (DOM)
SFP-GE-Z=	1000BASE-ZX Gigabit Ethernet SFP (DOM)
SFP-OC3-IR1	OC3/STM1 SFP, Single-mode fiber, Intermediate Reach
SFP-OC3-IR1=	OC3/STM1 SFP, Single-mode fiber, Intermediate Reach
SFP-OC3-LR1	OC3/STM1 SFP, Single-mode fiber, Long Reach (40km)
SFP-OC3-LR1=	OC3/STM1 SFP, Single-mode fiber, Long Reach (40km)
SFP-OC3-LR2	OC3/STM1 SFP, Single-mode fiber, Long Reach (80km)
SFP-OC3-LR2=	OC3/STM1 SFP, Single-mode fiber, Long Reach (80km)
SFP-OC12-IR1	OC-12/ STM-4 SFP, Intermediate Reach (15km)
SFP-OC12-IR1=	OC-12/ STM-4 SFP, Intermediate Reach (15km)
SFP-OC12-LR1	OC-12/ STM-4 SFP, Long Reach (40km)
SFP-OC12-LR1=	OC-12/ STM-4 SFP, Long Reach (40km)
SFP-OC12-LR2	OC-12/ STM-4 SFP, Long Reach (80km)
SFP-OC12-LR2=	OC-12/ STM-4 SFP, Long Reach (80km)
SFP-OC48-IR1	OC-48c/STM-16c
SFP-OC48-IR1=	OC-48c/STM-16c
SFP-OC48-SR	OC-48c/STM-16c SFP, Short Reach
SFP-OC48-SR=	OC-48c/STM-16c SFP, Short Reach
XFP-10GLR-OC192SR	Multirate XFP module for 10GBASE-LR and OC192 SR-1
XFP-10GLR-OC192SR=	Multirate XFP module for 10GBASE-LR and OC192 SR-1
XFP-10GZR-OC192LR	10GBASE-ZR and OC192 LR2 XFP Module
XENPAK-10GB-LW	10GBASE-LW XENPAK Module
XENPAK-10GB-LW=	10GBASE-LW XENPAK Module
<i>Cisco 7600 Spares and Accessories</i>	
12-MINISMB/BNC-M	12 pair (12Tx/12Rcv) 10ft. Mini-SMB to BNC-Male
CABLE-24T1E1J1	Cable for 24 Port CH T1/E1/J1 ATM and Circuit Emulation SPA
CABLE-24T1E1J1=	Cable for 24 Port CH T1/E1/J1 ATM and Circuit Emulation SPA
12-MINISMB/BNC-F	12 pair (12Tx/12Rcv) 10 ft. Mini-SMB to BNC female
12-MINISMB/OPEN	12 pair (12Tx/12Rcv) 25 meter Mini-SMB to Open-Ended cable
MINISMB/BNC-M=	One Pair (1Tx/1Rcv) 10ft. Mini-SMB to BNC-Male
MINISMB/BNC-F=	One Pair (1Tx/1Rcv) Mini-SMB to BNC-Female Cables
MINISMB/OPEN=	One Pair (1Tx/1Rcv) 25 meter Mini-SMB to Open ended cable
CVPN6500FIPS/KIT=	Kit (instructions, labels, shield) to config 6500 for FIPS
DC-LUGS-4=	DC power supply lugs for #4 AWG wire size
DC-LUGS-6=	DC power supply lugs for #6 AWG wire size
CAB-AC15A-90L-US	15A AC Pwr Cord, left-angle (United States) (bundle option)
CAB-AC15A-90L-US=	Spare 15A AC Pwr Cord, left-angle (US)
CAB-AC10A-90L-UK	10A AC Pwr Cord, left-angle (United Kingdom) (bundle option)
CAB-AC10A-90L-UK=	Spare 10A AC Pwr Cord, left-angle (UK)
CAB-AC10A-90L-IT	10a AC Pwr Cord, left-angle (Italy) (bundle option)
CAB-AC10A-90L-IT=	Spare 10A AC Pwr Cord, left-angle (Italy)
CAB-AC10A-90L-EU	10A AC Pwr Cord, left-angle (Europe) (bundle option)
CAB-AC10A-90L-EU=	Spare 10A AC Pwr Cord, left-angle (Europe)
CAB-AC16A-CH	16A AC Power Cord For China
CAB-AC16A-CH=	16A AC Power Cord For China
CAB-AC10A-90L-AU	10A AC Pwr Cord, left-angle (Australia) (bundle option)
CAB-AC10A-90L-AU=	Spare 10A AC Pwr Cord, left-angle (Australia)
FAN-MOD-6HS	High Speed Fan Module for CISCO7606 Chassis
FAN-MOD-6HS=	High Speed Fan Module for CISCO7606 Chassis
FAN-MOD-09=	Fan Mod CISCO7609 (2 required) / Cat6509-NEB-A (1 required)
WS-C6K-13SLT-FAN2=	High Speed Fan Tray, Spare, for Catalyst 6513 / Cisco 7613
KIT-MNTG-CG-6=	Mounting Kit and Cable Guide For CISCO7606
KIT-MNTG-CG-4=	Mounting Kit and Cable Guide For CISCO 7604 and 6504-E
KIT-MNTG-09=	Mounting Kit For CISCO7609/Cat6509-NEB-A chassis
PWR-1500-DC	7603S 1500W DC Power Supply
PWR-1500-DC=	7603S 1500W DC Power Supply
PWR-1900-AC/6	1900W AC Power Supply for CISCO7606
PWR-1900-AC/6=	1900W AC Power Supply for C7606
PWR-1900-AC/6/2	Redundant 1900W AC Pwr Sup CISCO7606
PWR-1900-DC	1900W DC Power Supply for Cisco7606
PWR-1900-DC/2	Redun.1900W DC Power Supply for Cisco7606
PWR-1900-DC=	1900W DC Power Supply for Cisco7606
WS-CDC-2500W	Catalyst 6000 2500W DC Power Supply
WS-CDC-2500W=	Catalyst 6000 2500W DC Power Supply, Spare
WS-CAC-3000W	Catalyst 6500 3000W AC power supply

Chapter 1

WS-CAC-3000W=	Catalyst 6500 3000W AC power supply (spare)
WS-CAC-4000W-INT	4000W AC PowerSupply, International (cable included)
WS-CAC-4000W-INT=	4000W AC PowerSupply, International (cable included)
WS-CAC-4000W-US	4000Watt AC Power Supply for US (cable attached)
WS-CAC-4000W-US=	4000Watt AC Power Supply for US (cable attached)
WS-CAC-6000W	Cat6500 6000W AC Power Supply
WS-CAC-6000W=	Cat6500 6000W AC Power Supply
PEM-DC	DC Power Entry Module Cisco7606
PEM-DC=	Spare DC Power Entry Module for Cisco7606
PEM-DC/2	Redun. DC Power Entry Module for Cisco7606
PEM-03S-CVR	Power Entry Module Blank Cover for 7603-S
PEM-03S-CVR=	Power Entry Module Blank Cover for 7603-S
PEM-20A-AC	Power Entry Module for CISCO7606 (1900W Pwr Sup)
PEM-20A-AC=	Power Entry Module CISCO7606
PEM-20A-AC/2	Redun. AC Power Entry Module for CISCO7606 (1900W PS)
PEM-1500W-DC/03S	7603S Power Entry Module
PEM-1500W-DC/03S=	7603S Power Entry Module
7606-PEM-CVR	Cisco 7606 PEM Cover
CAB-GSR16-US=	Cisco 12016 GSR AC Power Supply Cord, US Spare
CAB-GSR16-EU=	Cisco 12016 GSR AC Power Supply Cord, Europe Spare
CAB-AC-C6K-TWLK	Power Cord, 250Vac 16A, twist lock NEMA L6-20 plug, US
CAB-AC-C6K-TWLK=	Power Cord, 250Vac 16A, twist lock NEMA L6-20 plug, US
CAB-AC-2500W-EU	Power Cord, 250Vac 16A, Europe
CAB-AC-2500W-EU=	Power Cord, 250Vac 16A, Europe
CAB-AC-2500W-INT=	Power Cord, 250Vac 16A, INTL
CAB-AC-2500W-ISRL	Power Cord,250VAC,16A,Israel
CAB-AC-2500W-ISRL=	Power Cord,250VAC,16A,Israel
WS-C6509-NEB-FAN2	Catalyst 6509-NEB High Speed Fan Tray
WS-C6509-NEB-RACK=	Catalyst C6509-NEB chassis Rack Mount and Cable Org., Spare
WS-C6K-VTT=	Catalyst 6000 VTT Module, Spare
WS-C6K-VTT-E=	Catalyst 6500 E-series VTT Modules
CAB-AC16A-90L-IN=	16A AC right angle pwr cord -International
CLK-7600=	Spare Clock card for CISCO7603, CISCO7606 or CISCO7609 (FRU)
WS-X6K-SLOT-CVR=	Catalyst 6000 Blank Line Card Slot Cover
WS-X6K-SLOT-CVR-E=	Catalyst 6500 Enhanced chassis line card slot cover
CABLETRAY-09=	Cable Tray Assembly for CISCO7609/Cat6509-NEB-A
PWR-03S-CVR	Power Supply Blank Cover for 7603-S
PWR-03S-CVR=	7603S Power Supply Blank Cover
1900W-DC	1900 W DC Option for 7606 Bundle
2700W-AC	2700 W AC Power Supply for 7604
2700W-AC/6	2700 W AC Power Supply for 7606
2700W-DC/6	2700 W DC Power Supply for 7606
PWR-2700-AC	2700W AC power supply for CISCO7606
PWR-2700-AC=	2700W AC power supply for CISCO7606
4000W-AC-INT	4000W AC PowerSupply, International (cable attached)
4000W-DC	4000W DC PS for 7609/7613Chassis -Not orderable as spare
PWR-4000-DC	4000W DC PS for CISCO7609-S/CISCO7609/13, Cat6509/13 chassis
PWR-4000-DC=	4000W DC Pwr Supply for CISCO7609/13 and Cat 6509/13
CVR-4000DC-TERM=	Terminal Cover Kit for PWR-4000-DC
FLTRASSM-09=	Filter cage assm CISCO7609/WS-C6509-NEB-A, no filter inserts
FLTRINSERTS-09=	Set -five (5) replacement Filter inserts for FLTRASSM-09=
INTAKEPNL-09=	air intake panel (rqd for 7609/6509-NEB-A air filter)
PWR-2700-DC	2700W DC power supply for CISCO7606
PWR-2700-DC=	2700W DC power supply for CISCO7606
2700W-DC	2700 W DC Power Supply for 7604
3000W-AC	3000W AC Power Supply (select cable)
CVPN7600FIPS/KIT=	Kit (instructions, labels, shield) to config 7600 for FIPS
7600-SLOT-CVR	Cisco 7600 Line Card Slot Cover
7600-SLOT-CVR=	Cisco 7600 Line Card Slot Cover
PWR-2700-AC/4	2700W AC Power Supply for Cisco 7604/6504-E
PWR-2700-AC/4=	2700W AC Power Supply for Cisco 7604/6504-E
PWR-2700-DC/4	2700W DC Power Supply for Cisco 7604/6504-E
PWR-2700-DC/4=	2700W DC Power Supply for Cisco 7604/6504-E
FAN-MOD-4HS=	High-Speed Fan Module for Cisco 7604/6504-E Chassis
7600-SIP-200	Cisco 7600 Series SPA Interface Processor-200
7600-SIP-200=	Cisco 7600 Series SPA Interface Processor-200
6000W-AC	6000 W AC Power Supply for Cisco 7609/7613
6000W-DC	6000W DC Power Supply for 7609/7609-S/7613
PWR-6000-DC	6000W DC Power Supply for Cisco7609/7609S/7613

PWR-6000-DC=	6000W DC Power Supply for Cisco7609/7609S/7613
FAN-MOD-9SHS=	High Speed Fan Module for CISCOT7609-S Chassis
THERM-7609S=	Thermistor Module for 7609-S
INTAKEPNL-09S=	Air intake panel (reqd for 7609-S)
PWR-09S-CVR=	7609S Power Supply Blank Cover
<i>Cisco 7600 Memory Options</i>	
MEM-RSP720-CF512M	C7600 RSP720 Compact Flash memory
MEM-S2-256MB=	Catalyst 6500 256MB DRAM on the Supervisor (SUP2), Spare
MEM-S2-512MB	Catalyst 6500 512MB DRAM on the Supervisor (SUP2 or SUP720)
MEM-S2-512MB=	Catalyst 6500 512MB DRAM on the Supervisor(SUP2 or 720)Spare
MEM-MSFC2-512MB	Catalyst 6500 512MB DRAM on the MSFC2 or SUP720 MSFC3
MEM-MSFC2-512MB=	Catalyst 6500 512MB DRAM on the MSFC2 or SUP720 MSFC3, Spare
MEM-OSM-64M=	64MB ECC Memory for Optical Services Modules
MEM-OSM-128M	128 MB ECC Memory for Optical Services Modules
MEM-OSM-128M=	128 MB ECC Memory for Optical Services Modules
MEM-OSM-256M	256 MB ECC Memory for Optical Services Modules
MEM-OSM-256M=	256 MB ECC Memory for Optical Services Modules
MEM-OSM-512M	512 MB ECC Memory for Optical Services Modules
MEM-OSM-512M=	512 MB ECC Memory for Optical Services Modules
MEM-C6K-WAN-64M	FlexWAN Module Memory for Cisco 7600/Cat 6500, 64MB
MEM-C6K-WAN-128M=	FlexWAN Module Memory for Cisco 7600/Cat 6500, 128MB, Spare
MEM-DFC-128MB	Catalyst 6500 128MB DRAM for DFC
MEM-DFC-128MB=	Catalyst 6500 128MB DRAM for DFC, Spare
MEM-DFC-256MB	Catalyst 6500 256MB DRAM for DFC
MEM-DFC-256MB=	Catalyst 6500 256MB DRAM for DFC, Spare
MEM-DFC-512MB	Catalyst 6500 512MB DRAM for DFC
MEM-DFC-512MB=	Catalyst 6500 512MB DRAM for DFC, Spare
MEM-C6K-ATA-1-64M=	Cat6500 Sup2, ATA Type1 Flash Mem Card, 64MB Spare
MEM-C6K-FLC16M=	Cat6500 Sup1/Sup1A/Sup2, PCMCIA Flash Mem Card, 16MB Spare
MEM-C6K-FLC24M=	Cat6500 Sup1/Sup1A/Sup2, PCMCIA Flash Mem Card, 24MB Spare
MEM-C6K-CPTFL128M	Cat6500 Sup720/Sup32 Compact Flash Mem 128MB
MEM-C6K-CPTFL128M=	Cat6500 Sup720/Sup32 Compact Flash Mem 128MB
MEM-C6K-CPTFL256M	Cat6500 Sup720/Sup32 Compact Flash Mem 256MB
MEM-C6K-CPTFL256M=	Cat6500 Sup720/Sup32 Compact Flash Mem 256MB
MEM-C6K-CPTFL512M	Catalyst 6500 Sup720/Sup32 Compact Flash Mem 512MB
MEM-C6K-CPTFL512M=	Catalyst 6500 Sup720/Sup32 Compact Flash Mem 512MB
MEM-CC-WAN-512M	Two 512 MB Memory modules for the two Enhanced FlexWAN Bays
MEM-CC-WAN-512M=	512MB memory for Enhanced FlexWAN Module
MEM-CC-WAN-256M	256 MB Memory for Enhanced FlexWAN Module
MEM-CC-WAN-256M=	256 MB Memory Module for Enhanced FlexWAN Module
MEM-SIP-200-512M	512MB Memory for 7600 SIP-200
MEM-SIP-200-512M=	512MB Memory for 7600 SIP-200
MEM-SIP-200-1G	1 GB Memory for 7600 SIP-200
MEM-SIP-200-1G=	1 GB Memory for 7600 SIP-200
MEM-MWAM-512MB	MWAM 512MB Memory Option
MEM-MWAM-1GB	MWAM 1GB Memory Option
MEM-RSP720-CF256M	C7600 RSP720 Compact Flash Memory
MEM-RSP720-2G	C7600 RSP 720 1G to 2G Memory Upgrade
<i>Cisco 7600 Series Software for Supervisor 720</i>	
S763AEK9-12218SXF	Cisco 7600-SUP720 IOS ADVANCED ENTERPRISE SERVICES SSH
S763AIK9-12218SXF	Cisco 7600-SUP720 IOS ADVANCED IP SERVICES SSH
S763AIK9-12233SRA	Cisco 7600-SUP720 IOS ADVANCED IP SERVICES SSH
S763ISK9-12218SXF	Cisco 7600-SUP720 IOS IP SERVICES SSH
S763IS-12218SXF	Cisco 7600-SUP720 IOS IP SERVICES
S763ISK9-12233SRA	Cisco 7600-SUP720 IOS IP SERVICES SSH
S763IS-12233SRA	Cisco 7600-SUP720 IOS IP SERVICES
S763AEK9-12233SRA	Cisco 7600-SUP720 IOS ADVANCED ENTERPRISE SERVICES SSH
S763AESK9-12218SXE	Cisco 7600-SUP720 IOS ADVANCED ENTERPRISE SERVICES SSH
S763AISK9-12218SXE	Cisco 7600-SUP720 IOS ADVANCED IP SERVICES SSH
S763IPSK9-12218SXE	Cisco 7600-SUP720 IOS IP SERVICES SSH
S763AK9H-12218SXD	Cisco 7600-SUP720 IOS ENT FW W/MPLS/IPV6/SSH/3DES
S763Z-12218SXD	Cisco 7600-SUP720 IOS IP
S763ZK9-12218SXD	Cisco 7600-SUP720 IOS IP W/SSH/3DES
S763ZK9M-12218SXD	Cisco 7600-SUP720 IOS ADV IP W/MPLS/IPV6/SSH/3DES
S763AK9H-12217SXB	Cisco 7600-SUP720 IOS ENT FW W/MPLS/IPV6/SSH/3DES
S763AK9H-12217SXB=	Cisco 7600-SUP720 IOS ENT FW W/MPLS/IPV6/SSH/3DES
S763Z-12217SXB	Cisco 7600-SUP720 IOS IP
S763Z-12217SXB=	Cisco 7600-SUP720 IOS IP
S763ZK9-12217SXB	Cisco 7600-SUP720 IOS IP W/SSH/3DES

S763ZK9-12217SXB=	Cisco 7600-SUP720 IOS IP W/SSH/3DES
S763ZK9M-12217SXB	Cisco 7600-SUP720 IOS ADV IP W/MPLS/IPV6/SSH/3DES
S763ZK9M-12217SXB=	Cisco 7600-SUP720 IOS ADV IP W/MPLS/IPV6/SSH/3DES
7600-SW-SPARECD	Cisco 7600 Series Software Spare CD
<i>Cisco 7600 Series Software for Supervisor 32</i>	
S7632AEK9-12233SRB	Cisco 7600-SUP32 IOS ADVANCED ENTERPRISE SERVICES SSH
S7632AIK9-12233SRB	Cisco 7600-SUP32 IOS ADVANCED IP SERVICES SSH
S7632IS-12233SRB	Cisco 7600-SUP32 IOS IP SERVICES
S7632ISK9-12233SRB	Cisco 7600-SUP32 IOS IP SERVICES SSH
S763AEK9-12233SRB	Cisco 7600-SUP720 IOS ADVANCED ENTERPRISE SERVICES SSH
S763AIK9-12233SRB	Cisco 7600-SUP720 IOS ADVANCED IP SERVICES SSH
S763IS-12233SRB	Cisco 7600-SUP720 IOS IP SERVICES
S763ISK9-12233SRB	Cisco 7600-SUP720 IOS IP SERVICES SSH
S764AEK9-12233SRB	Cisco 7600-RSP720 IOS ADVANCED ENTERPRISE SERVICES SSH
S764AIK9-12233SRB	Cisco 7600-RSP720 IOS ADVANCED IP SERVICES SSH
S764IS-12233SRB	Cisco 7600-RSP720 IOS IP SERVICES
S764ISK9-12233SRB	Cisco 7600-RSP720 IOS IP SERVICES SSH
S7632AEK9-12218SXF	Cisco 7600-SUP32 IOS ADVANCED ENTERPRISE SERVICES SSH
S7632AIK9-12218SXF	Cisco 7600-SUP32 IOS ADVANCED IP SERVICES SSH
S7632ISK9-12218SXF	Cisco 7600-SUP32 IOS IP SERVICES SSH
S7632IS-12218SXF	Cisco 7600-SUP32 IOS IP SERVICES
S7632AEK9-12233SRA	Cisco 7600-SUP32 IOS ADVANCED ENTERPRISE SERVICES SSH
S7632AIK9-12233SRA	Cisco 7600-SUP32 IOS ADVANCED IP SERVICES SSH
S7632IS-12233SRA	Cisco 7600-SUP32 IOS IP SERVICES
S7632ISK9-12233SRA	Cisco 7600-SUP32 IOS IP SERVICES SSH
<i>Cisco 7600 Series Software for Supervisor 2</i>	
S76IPV-12412	Cisco 7600-CMM IOS IP VOICE W/O CRYPTO
S76IPV-12412=	Cisco 7600-CMM IOS IP VOICE W/O CRYPTO
S76IPVK9-12412	Cisco 7600-CMM IOS IP VOICE
S76IPVK9-12412=	Cisco 7600-CMM IOS IP VOICE
S76VGK9-12412	Cisco 7600-CMM IOS IP VOICE BASE
S76VGK9-12412=	Cisco 7600-CMM IOS IP VOICE BASE
S76IPV-12410	Cisco 7600-CMM IOS IP VOICE W/O CRYPTO
S76IPV-12410=	Cisco 7600-CMM IOS IP VOICE W/O CRYPTO
S76IPVK9-12410	Cisco 7600-CMM IOS IP VOICE
S76IPVK9-12410=	Cisco 7600-CMM IOS IP VOICE
S76VGK9-12410	Cisco 7600-CMM IOS IP VOICE BASE
S76VGK9-12410=	Cisco 7600-CMM IOS IP VOICE BASE
S76VGMS-12410	Cisco 7600-CMM IOS IP VOICE BASE WITHOUT CRYPTO
S76VGMS-12410=	Cisco 7600-CMM IOS IP VOICE BASE WITHOUT CRYPTO
S76VGMS-12412	Cisco 7600-CMM IOS IP VOICE BASE WITHOUT CRYPTO
S76VGMS-12412=	Cisco 7600-CMM IOS IP VOICE BASE WITHOUT CRYPTO
S763AEK9-12218SXF	Cisco 7600-SUP720 IOS ADVANCED ENTERPRISE SERVICES SSH
S763AIK9-12218SXF	Cisco 7600-SUP720 IOS ADVANCED IP SERVICES SSH
S763ISK9-12218SXF	Cisco 7600-SUP720 IOS IP SERVICES SSH
S763IS-12218SXF	Cisco 7600-SUP720 IOS IP SERVICES
S762AK9H-12217SXB=	Cisco 7600-SUP2/MSFC2 IOS ENT FW W/MPLS/IPV6/SSH/3DES
S762Z-12217SXB=	Cisco 7600-SUP2/MSFC2 IOS IP
S762ZK9-12217SXB=	Cisco 7600-SUP2/MSFC2 IOS IP W/SSH/3DES
S762ZK9M-12217SXB=	Cisco 7600-SUP2/MSFC2 IOS ADV IP W/MPLS/IPV6/SSH/3DES + BGP
S76AK2-12126E	Cisco 7600-SUP2/MSFC2 Ser IOS ENTERPRISE W/VIP SSH 3DES
S76AK2-12126E=	Cisco 7600-SUP2/MSFC2 Ser IOS ENTERPRISE W/VIP SSH 3DES
S76AK2H-12126E	Cisco 7600-SUP2/MSFC2 Ser IOS ENTERPRISE WITH FW/VIP 3DES
S76AK2H-12126E=	Cisco 7600-SUP2/MSFC2 Ser IOS ENTERPRISE WITH FW/VIP 3DES
S76AV-12126E	Cisco 7600-SUP2/MSFC2 Ser IOS ENTERPRISE W/VIP
S76AV-12126E=	Cisco 7600-SUP2/MSFC2 Ser IOS ENTERPRISE W/VIP
S76AVH-12126E	Cisco 7600-SUP2/MSFC2 Ser IOS ENTERPRISE WITH FW/VIP
S76AVH-12126E=	Cisco 7600-SUP2/MSFC2 Ser IOS ENTERPRISE WITH FW/VIP
S76BV-12126E	Cisco 7600-SUP2/MSFC2 Ser IOS DESKTOP W/VIP
S76BV-12126E=	Cisco 7600-SUP2/MSFC2 Ser IOS DESKTOP W/VIP
S76DV-12126E	Cisco 7600-SUP2/MSFC2 Ser IOS IP/IPX W/VIP
S76DV-12126E=	Cisco 7600-SUP2/MSFC2 Ser IOS IP/IPX W/VIP
S76ZK2-12126E	Cisco 7600-SUP2/MSFC2 Ser IOS SP W/VIP SSH 3DES
S76ZK2-12126E=	Cisco 7600-SUP2/MSFC2 Ser IOS SP W/VIP SSH 3DES
S76ZK2H-12126E	Cisco 7600-SUP2/MSFC2 Ser IOS SP WITH FW/VIP 3DES
S76ZK2H-12126E=	Cisco 7600-SUP2/MSFC2 Ser IOS SP WITH FW/VIP 3DES
S76ZV-12126E	Cisco 7600-SUP2/MSFC2 Ser IOS SERVICE PROVIDER W/VIP
S76ZV-12126E=	Cisco 7600-SUP2/MSFC2 Ser IOS SERVICE PROVIDER W/VIP
S76ZVH-12126E	Cisco 7600-SUP2/MSFC2 Ser IOS SP WITH FW/VIP

S76ZVH-12126E=	Cisco 7600-SUP2/MSFC2 Ser IOS SP WITH FW/VIP
S6S22ALK2-12113E	Catalyst 6000 SUP2/MSFC2 IOS ENTERPRISE SSH 3DES LAN ONLY
S6S22ALV-12113E	Catalyst 6000 SUP2/MSFC2 IOS ENTERPRISE LAN ONLY
S6S22DV-12113E	Catalyst 6000 SUP2/MSFC2 IOS IP/IPX W/VIP
S6S22ZLV-12113E	Catalyst 6000 SUP2/MSFC2 IOS SERVICE PROVIDER LAN ONLY
S762IPS-12218SXE	Cisco 7600-SUP2 IOS IP SERVICES
S762IPSK9-12218SXE	Cisco 7600-SUP2 IOS IP SERVICES SSH
7600-SW-SPARECD	Cisco 7600 Series Software Spare CD
S76AK2-12127E=	Cisco 7600-SUP2/MSFC2 Ser IOS ENTERPRISE W/VIP SSH 3DES
S76AK2H-12127E=	Cisco 7600-SUP2/MSFC2 Ser IOS ENTERPRISE WITH FW/VIP 3DES
S76AV-12127E=	Cisco 7600-SUP2/MSFC2 Ser IOS ENTERPRISE W/VIP
S76AVH-12127E=	Cisco 7600-SUP2/MSFC2 Ser IOS ENTERPRISE WITH FW/VIP
S76BV-12127E=	Cisco 7600-SUP2/MSFC2 Ser IOS DESKTOP W/VIP
S76DV-12127E=	Cisco 7600-SUP2/MSFC2 Ser IOS IP/IPX W/VIP
S76ZK2-12127E=	Cisco 7600-SUP2/MSFC2 Ser IOS SP W/VIP SSH 3DES
S76ZK2H-12127E=	Cisco 7600-SUP2/MSFC2 Ser IOS SP WITH FW/VIP 3DES
S76ZV-12127E=	Cisco 7600-SUP2/MSFC2 Ser IOS SERVICE PROVIDER W/VIP
S76ZVH-12127E=	Cisco 7600-SUP2/MSFC2 Ser IOS SP WITH FW/VIP
S76IPV-12407=	Cisco 7600-CMM IOS IP VOICE W/O CRYPTO
S76IPVK9-12407=	Cisco 7600-CMM IOS IP VOICE
S76VGK9-12407=	Cisco 7600-CMM IOS IP VOICE BASE
S76VGMS-12407=	Cisco 7600-CMM IOS IP VOICE BASE WITHOUT CRYPTO
S76ITPK9-12218IXA	Cisco 7600 Series IOS IP TRANSFER POINT (ITP)
S76ITPK9-12218IXB	Cisco 7600 Series IOS IP TRANSFER POINT (ITP)
S76VGK9-12409T	Cisco 7600-CMM IOS IP VOICE BASE
S76VGMS-12409T	Cisco 7600-CMM IOS IP VOICE BASE WITHOUT CRYPTO
S76VGMS-12409T=	Cisco 7600-CMM IOS IP VOICE BASE WITHOUT CRYPTO
S76IPV-12409T	Cisco 7600-CMM IOS IP VOICE W/O CRYPTO
S76IPV-12409T=	Cisco 7600-CMM IOS IP VOICE W/O CRYPTO
S76IPV-12411T	Cisco 7600-CMM IOS IP VOICE W/O CRYPTO
S76IPV-12411T=	Cisco 7600-CMM IOS IP VOICE W/O CRYPTO
S76IPVK9-12409T	Cisco 7600-CMM IOS IP VOICE
S76IPVK9-12409T=	Cisco 7600-CMM IOS IP VOICE
S76IPVK9-12411T	Cisco 7600-CMM IOS IP VOICE
S76IPVK9-12411T=	Cisco 7600-CMM IOS IP VOICE
S76IPV-12408	Cisco 7600-CMM IOS IP VOICE W/O CRYPTO
S76IPV-12408=	Cisco 7600-CMM IOS IP VOICE W/O CRYPTO
S76IPVK9-12408	Cisco 7600-CMM IOS IP VOICE
S76IPVK9-12408=	Cisco 7600-CMM IOS IP VOICE
S76VGK9-12408	Cisco 7600-CMM IOS IP VOICE BASE
S76VGK9-12408=	Cisco 7600-CMM IOS IP VOICE BASE
S76VGK9-12407	Cisco 7600-CMM IOS IP VOICE BASE
S76VGMS-12408	Cisco 7600-CMM IOS IP VOICE BASE WITHOUT CRYPTO
S76VGMS-12408=	Cisco 7600-CMM IOS IP VOICE BASE WITHOUT CRYPTO
S76VGMS-12407	Cisco 7600-CMM IOS IP VOICE BASE WITHOUT CRYPTO
S76IPV-12407	Cisco 7600-CMM IOS IP VOICE W/O CRYPTO
S76IPVK9-12407	Cisco 7600-CMM IOS IP VOICE
S76IPV-12406T	Cisco 7600-CMM IOS IP VOICE W/O CRYPTO
S76IPV-12406T=	Cisco 7600-CMM IOS IP VOICE W/O CRYPTO
S76IPVK9-12406T	Cisco 7600-CMM IOS IP VOICE
S76IPVK9-12406T=	Cisco 7600-CMM IOS IP VOICE
S76VGK9-12411T	Cisco 7600-CMM IOS IP VOICE BASE
S76VGK9-12411T=	Cisco 7600-CMM IOS IP VOICE BASE
S76VGMS-12411T	Cisco 7600-CMM IOS IP VOICE BASE WITHOUT CRYPTO
S76VGMS-12411T=	Cisco 7600-CMM IOS IP VOICE BASE WITHOUT CRYPTO
S76VGK9-12406T	Cisco 7600-CMM IOS IP VOICE BASE
S76VGK9-12406T=	Cisco 7600-CMM IOS IP VOICE BASE
S76VGMS-12406T	Cisco 7600-CMM IOS IP VOICE BASE WITHOUT CRYPTO
S76VGMS-12406T=	Cisco 7600-CMM IOS IP VOICE BASE WITHOUT CRYPTO
S76IPV-12405	Cisco 7600-CMM IOS IP VOICE W/O CRYPTO
S76IPV-12405=	Cisco 7600-CMM IOS IP VOICE W/O CRYPTO
S76IPVK9-12405	Cisco 7600-CMM IOS IP VOICE
S76IPVK9-12405=	Cisco 7600-CMM IOS IP VOICE
S76VGK9-12405	Cisco 7600-CMM IOS IP VOICE BASE
S76VGK9-12405=	Cisco 7600-CMM IOS IP VOICE BASE
S76VGMS-12405	Cisco 7600-CMM IOS IP VOICE BASE WITHOUT CRYPTO
S76VGMS-12405=	Cisco 7600-CMM IOS IP VOICE BASE WITHOUT CRYPTO
S76ITPK9-12218IXC	Cisco 7600 Series IOS IP TRANSFER POINT (ITP)

Chapter 1

Cisco 7600 Services Module Software

SC-SVC-SSL-1.1-K9	Software for SSL Module for Catalyst 6500
SC-SVC-FWM-3.1-K9	Firewall Module Software 3.1 for 6500 and 7600, 2 free VFW
SC-SVC-FWM-2.2-K9	Firewall Module Software 2.2 for 6500, 2 free VFW
SC-SVC-FWM-2.2-K9=	Firewall Module Software 2.2 for 6500, 2 free VFW
SC-SVC-FWM-1.4-K9	Firewall Module Software 1.1(4) for Catalyst 6500
SC-SVC-IDSM-5.0-K9	IPSV5.0 for IDSM-2
SC6K-4.1.1-CSM	CSM 4.1(1) Software Release
SC6K-4.1.4-CSM	CSM 4.1(4) Software Release
SC6K-4.1.5-CSM	CSM 4.1(5) Software Release
SC6K-4.1.7-CSM	CSM 4.2(1) Software Release
SC6K-4.2.2-CSM	CSM 4.2.2 Software Release
SC6K-3.2.2-CSM	CSM 3.2(2) Software Release
SC6K-3.2.1-CSM	CSM 3.2.1 Software Release
SC6K-3.1.6-CSM	CSM 3.1(6) Software Release
SC6K-3.1.10-CSM	CSM 3.1.10 Software Release
SC-SVC-CSG-B-5.0	CSG R5 SW For Basic Billing Support
SC-SVC-CSG-B-5.0=	CSG R5 SW For Basic Billing Support
SC-SVC-CSG-B-6.0	CSG R6 SW For Basic Billing Support
SC-SVC-CSG-B-6.0=	CSG R6 SW For Basic Billing Support
SC-SVC-CSG-B-7.0	CSG R7 SW Basic L3/L4 and Noncommercial Billing Support
SC-SVC-CSG-B-7.0=	CSG R7 SW Basic L3/L4 and Noncommercial Billing Support
SC-SVC-CSG-EP-7.0	CSG R7 SW Enhanced Premium Billing Support
SC-SVC-CSG-EP-7.0=	CSG R7 SW Enhanced Premium Billing Support
SC-SVC-CSG-P-5.0=	CSG R5 SW For Premium Billing Support
SC-SVC-CSG-P-6.0	CSG R6 SW For Premium Billing Support
SC-SVC-CSG-P-6.0=	CSG R6 SW For Premium Billing Support
SC-SVC-CSG-P-7.0	CSG R7 SW Premium L7 Billing and Filtering Support
SC-SVC-CSG-P-7.0=	CSG R7 SW Premium L7 Billing and Filtering Support
SC-SVC-CSG-U-5.0=	CSG R5 SW Upgrade (B to P)
SC-SVC-CSG-U-6.0=	CSG R6 SW Upgrade (B to P)
SC-SVC-CSG-UB-5.0=	CSG R5 SW Upgrade from R4 - B
SC-SVC-CSG-UB-6.0=	CSG R6 SW Upgrade from R5 - B
SC-SVC-CSG-UB-7.0=	CSG R7 SW Upgrade from R6 - Basic
SC-SVC-CSG-UE-7.0=	CSG R7 SW Upgrade from R6 - Premium to Enhanced Premium
SC-SVC-CSG-UP-5.0=	CSG R5 SW Upgrade from R4 - P
SC-SVC-CSG-UP-6.0=	CSG R6 SW Upgrade from R5 - P
SC-SVC-IDSM-5.1-K9	IPSV5.1 for IDSM-2

Cisco 7600 Feature Licenses

FL-CSG-5K=	Cisco CSG 7604/Sup32 Bundle - 5K Subscriber RTU
FL-MWHA-5K=	Cisco MW Home Agent 7604/Sup32 Bundle - 5K Subscriber RTU
FL-PDSN-5K=	Cisco PDSN 7604/Sup32 Bundle - 5K Subscriber RTU
76-ES20-ADVIP-LIC	ES20 Adv License: With MVPN, IPv6, 6VPE, and L3 IP/MPLS VPN.
76-ES20-ADVIP-LIC=	ES20 Adv License: With MVPN, IPv6, 6VPE, and L3 IP/MPLS VPN.
76-ES20-BASIC-LIC	ES20 Basic License: No MVPN, IPv6, 6VPE, and L3 IP/MPLS VPN.
FR-BRE-7600	Bridged Routed Encapsulation License on Cisco 7600
FR-C6FW	Catalyst 6000 family IOS Firewall Feature Set
FR-C6FW=	Catalyst 6000 family IOS Firewall Feature Set
FR-IRC6	Catalyst 6000 Family InterDomain Routing Feature License
FR-IRC6=	Catalyst 6000 Family InterDomain Routing Feature License
FR76-MPLS-IPV6=	Cisco 7600 MPLS/IPv6 Upgrade License
FR-IOSSLB	Catalyst 6000 Supervisor IOS SLB Feature License
FR-IOSSLB=	Catalyst 6000 Supervisor IOS SLB Feature License
FR-SVC-FWM-VC-T1	Catalyst 6500 and 7600 virtual FW licensing for 20 VF
FR-SVC-FWM-VC-T1=	Catalyst 6500 and 7600 virtual FW licensing for 20 VF
FR-SVC-FWM-VC-T2	Catalyst 6500 and 7600 virtual FW licensing for 50 VF
FR-SVC-FWM-VC-T2=	Catalyst 6500 and 7600 virtual FW licensing for 50 VF
FR-SVC-FWM-VC-T3	Catalyst 6500 and 7600 virtual FW licensing for 100 VF
FR-SVC-FWM-VC-T3=	Catalyst 6500 and 7600 virtual FW licensing for 100 VF
FR-SVC-FWM-UPGR1=	Catalyst 6500 and 7600 virtual FW upgrade from 20 to 50
FR-SVC-FWM-UPGR2=	Catalyst 6500 and 7600 virtual FW upgrade from 50 to 100
SC6K-4.2.1-CSM	CSM 4.2(1) Software Release
SC6K-3.2.3-CSM	CSM 3.2.3 Software Release
SC6K-3.1.8-CSM	CSM 3.1(8) SOFTWARE RELEASE
FL-CSG-BASIC-50K	CSG 50K User License F/ Basic Billing Support
FL-CSG-BASIC-NL	CSG No Limit User License F/ Basic Billing Support
FL-CSG-BASIC-UPG=	Upgrade - FL-CSG-BASIC-50K To FL-CSG-BASIC-NL
FL-CSG-PREM-50K	CSG 50K User License F/ Premium Billing Support
FL-CSG-PREM-NL	CSG No Limit User License F/ Premium Billing Support

FL-CSG-BASIC-50K=	CSG 50K User License F/ Basic Billing Support
FL-CSG-BASIC-NL=	CSG No Limit User License F/ Basic Billing Support
FL-CSG-PREM-NL=	CSG No Limit User License F/ Premium Billing Support
FL-CSG-PREM-NLB=	CSG No Limit 2 Unit License F/ Premium Billing Support
FL-CSG-PREM-UPG=	Upgrade - FL-CSG-PREM-50K To FL-CSG-PREM-NL
FL-CSG-UPG-50K=	Upgrade - FL-CSG-BASIC-50K To FL-CSG-PREM-50K
FL-CSG-UPG-NL=	Upgrade - FL-CSG-BASIC-NL To FL-CSG-PREM-NL
FR-ITP-7600-MLR	Advanced multi-layer routing license
FR-ITP-7600-MLR=	Advanced multi-layer routing license
FR-ITP-7600-MVAR	Multi-variant and/or multi-NI conversion license
FR-ITP-7600-MVAR=	Multi-variant and/or multi-NI conversion license
FR-ITP-ATMHSL-EFW	ATM-based SS7 HSL license per eFW bay
FR-ITP-ATMHSL-EFW=	ATM-based SS7 HSL license per eFW bay
FR-ITP-M2PA-EFW	enhanced FlexWAN per bay M2PA license
FR-ITP-M2PA-EFW=	enhanced FlexWAN per bay M2PA license
FR-ITP-M3UA-EFW	enhanced FlexWAN per bay M3UA license
FR-ITP-M3UA-EFW=	enhanced FlexWAN per bay M3UA license
FR-ITP-SUA-EFW	enhanced FlexWAN per bay SUA license
FR-ITP-SUA-EFW=	enhanced FlexWAN per bay SUA license
<i>Cisco 7600 Network Management</i>	
EMS-7600-31KIT-DK9	Cisco 7600 Internet Router Mgr v3.1 DEMO Media Kit
EMS-CIRM-3.2D	CEMF Element Manager for Cisco 7600 Router - Demo Lic
EMS-CIRM--KIT-3.2	CEMF Element Manager for Cisco 7600 Router - Media Kit
EMS-CIRM-3.2	CEMF Element Manager for Cisco 7600 Router - RTU
EMS-CIRM-3.2U	CEMF Element Manager for Cisco 7600 Router-Upg from V3.1

1. This is only a small subset of all parts available via URL listed under "For More Information." Some parts have restricted access or are not available through distribution channels.

For More Information

See the Cisco 7600 Series Web site: <http://www.cisco.com/go/7600>

Cisco 10700 Series

The Cisco 10700 series includes the Cisco 10720 Internet Router is a high-performance router and a principle building block in the metro IP network. It enables service providers to offer innovative and differentiated IP services to their customers at optical speeds.

When to Sell

Sell This Product When a Customer Needs These Features

- Cisco 10700 Series*
- High-performance IP services as part of their business strategy by extending IP further out into the network
 - Simple, scalable, reliable features of DPT technology while maximizing fiber usage
 - Any customer already using DPT technology in their network, most likely with DPT cards on the 12000 Internet Router
 - Metro Ethernet Services such as L2 and L3 VPN with FE/GE hand off to the Customer and 50ms restoration over dark fiber using DPT
 - IEEE 802.17-standard-compliant RPR technology

Key Features

- Support for IP, MPLS and L2TPv3 features at 2MPPS; L2 VPN—L2TPv3 and EoMPLS; L3 VPN MPLS VPN and MPLS VPN over IP
- Security—ACLs, uRPF, Control Plane Policing and BFD
- SRP or 802.17 RPR with <50 ms restoration time
- Multicast support including PIM SM, PIM DM, MBGP; QoS—Modular QoS CLI, 8 queues per port
- Ethernet—MDI-MDI-X support, 10/100 speed auto-negotiation, HDX-FDX negotiation and time delay reflectometry (TDR) for 10/100BaseTX
- Hot Standby Routing Protocol (HSRP)/Multiple Hot Standby Routing Protocol (MHSRP)
- Optical receive power monitoring support on OC-48/STM-16 Interface and GE
- Management information bases (MIBs)—SNMP, SRP, SONET, Etherlike, OSPF

- Suitable for other applications—Internet data center applications, intra-POP aggregation, cable multisystem operator (MSO) internetworking, and VoIP aggregation

Specifications

Feature	Cisco 10700 Series
Security Features	Including AAA, RADIUS authentication, TACACS+, and encrypted passwords
Management	Cisco IOS CLI: TACACS+ and RADIUS; Configuration and administration features including Telnet and Cisco Discovery Protocol (CDP); Serial (aux) and console ports for local and remote administration; Remote software download via TFTP and RCP; IP over DCC for remote management of the Cisco ONS 15104 OC-48/STM-16 Optical Regenerator, where applicable
Physical Interfaces	<p>Uplink Modules: 2-port single-mode OC-48c/STM16c DPT (SR 2 km (1.2 miles), IR 15 km (9.3 miles), LR1 40km (24 miles) and LR2 80km (50miles)</p> <p>Interface Modules—The Cisco 10720 Internet Router has two dedicated slots for interface modules—modules are not interchangeable or hot swappable:</p> <ul style="list-style-type: none"> • Upper slot is dedicated for DPT or POS Uplink module equipped with two physical ports of OC-48c/STM16c that provide an aggregate bandwidth of approximately 5 Gbps. The cards are available in two four versions of optics, short reach (SR) and intermediate reach (IR), Long Reach1 (LR1) and Long Reach2 (LR2) with two small form-factor OC-48 ports with LC connectors. • A third option for the upper slot is the CON-AUX module, which is a depopulated uplink card equipped with Console and Auxiliary ports only; this allows the configuration of the 10720 as an “Ethernet Router” allowing the use of one or more of the Ethernet ports in the lower slot for network connectivity • New Uplink module that supports 2XOC48/STM16 RPR/DPT with pluggable optics. This is Cisco’s first IEEE 802.17-compliant RPR module. This module can be optionally configured in SRP mode, thus making it backward compatible with existing DPT deployments • Lower slot is dedicated for 24-port Fast Ethernet module—available in TX (100 m reach), FX-MM (2 km reach) or FX-SM (15 km reach). The TX module is equipped with RJ-45 connectors while the FX-SM and FX-MM modules are equipped with MT-RJ connectors. • Also available is a combination 4 Gigabit Ethernet with Small Form Factor Plug-able (SFP) Optics available in SX 550m, LH 10km, ZH 70km and Copper plus an additional 8 Ports of Fast Ethernet 10/100 TX Copper ports.
Dimensions (H x W x D)	3.5 x 17.25 x 18.25 in. (8.9 x 43.81 x 46.35 cm)

Selected Part Numbers and Ordering Information¹

Cisco 10700 Series

CISCO10720-AC-A	Cisco 10720 Internet Router with dual AC power supply
CISCO10720-DC-A	Cisco 10720 Internet Router with dual DC Power Supply
10720-FE-TX	24-port 10/100 Ethernet Access Module RJ45 connectors
10720-GE-FE-TX-B	4-port 100Mbps SFP GE with 8-ports of 10/100 Ethernet TX-RJ45
SFP-GE-S	GE SFP - Short Reach 550M LC connectors
SFP-GE-L	GE SFP - Intermediate Reach 10KM LC connectors
CWDM-SFP-1470	Longwave 1470 nm laser, single mode - Gray
CWDM-SFP-1490	Longwave 1490 nm laser, single mode - Violet
CWDM-SFP-1510	Longwave 1510 nm laser, single mode - Blue
CWDM-SFP-1530	Longwave 1530 nm laser, single mode - Green
CWDM-SFP-1550	Longwave 1550 nm laser, single mode - Yellow
CWDM-SFP-1570	Longwave 1570 nm laser, single mode - Orange
CWDM-SFP-1590	Longwave 1590 nm laser, single mode - Red
CWDM-SFP-1610	Longwave 1610 nm laser, single mode - Brown
SFP-GE-T	GE SFP - 1000BaseT
10720-LR2-LC-POS	OC-48c/STM-16c SRP Long Reach 2 (80km) Uplink Module-LC connectors
10720-MEM-512=	512MB RP Memory
10720-RPR-SFP	OC-48c/STM-16c RPR/SRP Uplink Module supporting SFPs
SFP-OC48-SR	OC-48c/STM-16c Short Reach (2KM) pluggable SFP
SFP-OC48-IR1	OC-48c/STM-16c Intermediate Reach1 (15KM) pluggable SFP
SFP-OC48-LR2	OC-48c/STM-16c Long Reach2 (80KM) pluggable SFP

1. This is only a small subset of all parts available via URL listed under “For More Information.” Some parts have restricted access or are not available through distribution channels.

For More Information

See the Cisco 10720 Internet Router Web site: <http://www.cisco.com/go/10700>

Cisco XR 12000 and 12000 Series

The Cisco XR 12000 Series and Cisco 12000 Series routers compose a portfolio of intelligent routing solutions that scale from 2.5G to n x 10 Gbps capacity per slot, enabling carrier-class IP/MPLS networks and accelerating the evolution to IP Next-Generation Networks.



Key Features

- Delivers up to 1.28 Tbps switching capacity with wire-speed feature performance, scalability, and graceful hardware and software upgrade paths
- Offers full forward compatibility for all line cards and portfolio of SPAs and SIPs.
- Scales to the edge, supporting backbone- or edge-optimized line cards in the same chassis
- Maximizes the value of line-rate edge applications with 10G uplinks.
- IP QoS and congestion control implementation—Enables real-time services such as VoIP and video; Priority based congestion control, dedicated low latency queuing, and virtual output queuing eliminates head of line blocking and maintain packet sequence integrity under all conditions
- Non-service impacting online insertion and removal (OIR) of components (including switch fabric cards) and front accessibility reduce downtime and simplify maintenance
- Offers Cisco NSF and Cisco Stateful Switchover (SSO) eliminate single points of failure, help maintain system performance, and prevent service interruption; packet forwarding remains uninterrupted before, during and after a route processor switchover.

Competitive Products

• Juniper: T640, T320, M320

• Avici: Stackable Switch Router (SSR)

Specifications

Feature	Cisco XR 12000/12000	Cisco XR 12000/12000 Series 10-Slot Chassis	Cisco XR 12000/12000 Series 6-Slot Chassis	Cisco XR 12000/12000 Series 4-Slot Chassis
Slot Capacity	16 slots	10 slots	6 slots	4 slots
Aggregate Switching Capacity	12016: 80 Gbps; 12416: 320 Gbps; 12816: 1280 Gbps	12010: 50 Gbps; 12410: 200 Gbps; 12810: 800 Gbps	12006: 30 Gbps; 12406: 120 Gbps	12404: 80 Gbps
Full-Duplex Throughput Per	12016: 2.5 Gbps/slot 12416: 10 Gbps/slot 12816: 40 Gbps/slot	12010: 2.5 Gbps/slot 12410: 10 Gbps/slot 12810: 40 Gbps/slot	12006: 2.5 Gbps/slot 12406: 10 Gbps/slot	12404: 10 Gbps/slot
Dimensions (H x W x D)	71.5 x 17.25 x 22.0 in. (181.6 x 184.2 ¹ x 55.9 cm) 72.5 x 18.75 x 24.0 in. ² (43.8 x 47.6 x 61.0 cm) ³	37.5 x 19 x 22.0 in. (95.25 x 48.26 x 55.9 cm); 24.0 in. (61.0 cm) ³	18.5 in. (47.0 cm) width: 17.3 in. (43.9 cm) 18.9 in. (48.0 cm) ² depth: 28.0 in. (71.1 cm)	8.75 in. (22.23 cm) width: 17.38 in. (44.15 cm) 18.9 in. (48.01 cm) ² depth: 27.5 in. (69.85 cm)
Weight	140 lb. (64 kg) ⁴ ; 390 lb. (177 kg) ⁵	125 lb. (57 kg) ⁴ ; 275 lb. (125 kg) ⁵	140 lb. (64 kg) ⁴ ; 205 lb. (94 kg) ⁵	73 lb. (33.18 kg) ⁴ ; 103 lb. (46.82 kg) ⁵
Chassis Per Rack	1	2	4	8
Software Components (Per Base System)	Cisco IOS XR or Cisco IOS Software Operating System; Cisco Express Forwarding for distributed packet forwarding			
Compatibility	12800: Line cards that support 2.5-, 10-, or 20-Gbps capability; 12400: Line cards that support 2.5- or 10-Gbps capability; 12000: Line cards that support 2.5-Gbps capability			
Protocols	IPv4, MPLS, BGPv4, IS-IS, OSPFv2.0, RIPv2, IGMP, DVMRP, and PIM DX/SX			
Connectivity	Packet over SONET/SDH (POS), Ethernet, ATM, copper (DS-3/E3), Channelized (CT3, ChOC-3/CHSTM1, ChOC-12/CHSTM4, ChOC-48/CHSTM16); see Cisco IOS XR Software release notes for specific connectivity support on the Cisco XR 12000 Series			

1. With AC input power shelf or DC input power shelf, front covers installed
2. Including chassis rack-mount flanges
3. Including cable-management system and front cover
4. Chassis only, including power shelf for 16-slot chassis
5. Chassis fully configured, using all card slots, AC or DC power shelf for 16-slot chassis, and AC or DC input power supplies

Selected Part Numbers and Ordering Information¹*Cisco XR 12000 16-Slot Systems*

XR-12416/320-AC	Cisco XR 12000 16-slot Chassis with 3 AC power supplies, 320-Gbps fabric (2 CSC and 3 SFC cards), 2
XR-12416/320-AC4	Cisco XR 12000 16-slot Chassis with 4 AC power supplies, 320-Gbps fabric (2 CSC and 3 SFC cards), 2
XR-12416/320-DC	Cisco XR 12000 16-slot Chassis with 4 DC power supplies, 320-Gbps fabric (2 CSC and 3 SFC cards), 2

Cisco 12000 16-Slot Systems

GSR16/80-AC-8R	Cisco 12000 16-slot Chassis with 3 AC power supplies, 80-Gbps fabric (2 CSC and 3 SFC cards), 2 blowers, 2
GSR16/320-AC	Cisco 12000 16-slot Chassis with 3 AC power supplies, 320-Gbps fabric (2 CSC and 3 SFC cards), 2 blowers, 2
12816/1280-AC3	Cisco 12000 16-slot Chassis with 3 AC power supplies, 1280-Gbps fabric (2 CSC and 3 SFC cards), 2 blowers, 2 alarms, and 1 PRP-1
GSR16/80-AC4-8R	Cisco 12000 16-slot Chassis with 4 AC power supplies, 80-Gbps fabric (2 CSC and 3 SFC cards), 2 blowers, 2
GSR16/320-AC4	Cisco 12000 16-slot Chassis with 4 AC power supplies, 320-Gbps fabric (2 CSC and 3 SFC cards), 2 blowers, 2
12816/1280-AC4	Cisco 12000 16-slot Chassis with 4 AC power supplies, 1280-Gbps fabric (2 CSC and 3 SFC cards), 2 blowers, 2 alarms, and 1 PRP-1
GSR16/80-DC-8R	Cisco 12000 16-slot Chassis with 4 DC power supplies, 80-Gbps fabric (2 CSC and 3 SFC cards), 2 blowers, 2
GSR16/320-DC	Cisco 12000 16-slot Chassis with 4 DC power supplies, 320-Gbps fabric (2 CSC and 3 SFC cards), 2 blowers, 2
12816/1280-DC	Cisco 12000 16-slot Chassis with 4 DC power supplies, 1280-Gbps fabric (2 CSC and 3 SFC cards), 2 blowers, 2 alarms, and 1 PRP-1

Cisco XR 12000 10-Slot Systems

XR-12410/200-AC	Cisco XR 12000 10-slot Chassis with 2 AC power supplies, 200-Gbps fabric (2 CSC and 5 SFC cards), 1
XR-12410/200-DC	Cisco XR 12000 10-slot Chassis with 2 DC power supplies, 200-Gbps fabric (2 CSC and 5 SFC cards), 1

Cisco 12000 10-Slot Systems

12010-AC	Cisco 12000 10-slot Chassis with 2 AC power supplies, 50-Gbps fabric (2 CSC and 5 SFC cards), 1 blower, 2
12010-DC	Cisco 12000 10-slot Chassis with 2 DC power supplies, 50-Gbps fabric (2 CSC and 5 SFC cards), 1 blower, 2
GSR10/200-AC	Cisco 12000 10-slot Chassis with 2 AC power supplies, 200-Gbps fabric (2 CSC and 5 SFC cards), 1 blower, 2
GSR10/200-DC	Cisco 12000 10-slot Chassis with 2 DC power supplies, 200-Gbps fabric (2 CSC and 5 SFC cards), 1 blower, 2
12810/800-AC	Cisco 12000 10-slot Chassis with 2 AC power supplies, 800-Gbps fabric (2 CSC and 5 SFC cards), 1 blower, 2
12810/800-DC	Cisco 12000 10-slot Chassis with 2 DC power supplies, 800-Gbps fabric (2 CSC and 5 SFC cards), 1 blower, 2

Cisco XR 12000 6-Slot Systems

XR-12406/120-AC	Cisco XR 12000 6-slot Chassis with 1 AC power supply, 120-Gbps fabric (1 CSC and 3 SFC cards), 1 blower, 2
XR-12406/120-DC	Cisco XR 12000 6-slot Chassis with 1 DC power supply, 120-Gbps fabric (1 CSC and 3 SFC cards), 1 blower, 2

Cisco 12000 6-Slot Systems

12006-AC	Cisco 12000 6-slot Chassis with 2 AC power supplies, 30-Gbps fabric (2 CSC and 3 SFC cards), 1 blower, 2
12006-DC	Cisco 12000 6-slot Chassis with 2 DC power supplies, 30-Gbps fabric (2 CSC and 3 SFC cards), 1 blower, 2
GSR6/120-AC	Cisco 12000 6-slot Chassis with 1 AC power supply, 120-Gbps fabric (1 CSC and 3 SFC cards), 1 blower, 2
GSR6/120-DC	Cisco 12000 6-slot Chassis with 1 DC power supply, 120-Gbps fabric (1 CSC and 3 SFC cards), 1 blower, 2

Cisco XR 12000 4-Slot Systems

XR-12404/80-AC	Cisco XR 12000 4-slot Chassis with 2 AC power supply, 80-Gbps fabric (consolidated switch fabric, clock scheduler, and alarm card), 1 blower, and 1 PRP-2
XR-12404/80-DC	Cisco XR 12000 4-slot Chassis with 2 DC power supply, 80-Gbps fabric (consolidated switch fabric, clock scheduler, and alarm card), 1 blower, and 1 PRP-2

Cisco 12000 4-Slot Systems

GSR4/80-AC	Cisco 12000 4-slot Chassis with 2 AC power supply, 80-Gbps fabric (consolidated switch fabric, clock scheduler, and alarm card), 1 blower, and 1 PRP-1
GSR4/80-DC	Cisco 12000 4-slot Chassis with 2 DC power supply, 80-Gbps fabric (consolidated switch fabric, clock scheduler, and alarm card), 1 blower, and 1 PRP-1

Cisco 12000 Series Line Cards

12DS3-SMB	DS3 line card, 12 ports
12E3-SMB	E3 line card, 12 ports
16OC3X/POS-I-LC-B	16 PORT OC3 WITH EXTENDED FEATURES RELEASE B
16OC3X/POS-M-MJ-B	GSR 16-port OC3/POS MM Eng3 release B
1X10GE-ER-SC	Cisco 12000 1-Port 10GE Card, 1550nm serial, 40km, SC
1X10GE-LR-SC	Cisco 12000 1-Port 10GE Card, 1310nm serial, 10km, SC
2CHOC3/STM1-IR-SC	Channelized OC3/STM1 -> DS1/E1, 2 ports Intermediate Reach
2OC192/POS-IR-SC	Cisco Two-port OC192c/STM64c POS Line Card 1550nm IR, SC
2OC192/POS-SR-SC	Cisco Two-port OC192c/STM64c POS Line Card 1310 nm SR, SC
2OC192/POS-VSR	Cisco Two-port OC192c/STM64c POS Line Card 850nm VSR, MTP
4CHOC12/DS3-I-SCB	4 PORT CHANNELIZED OC12 B
4GE-SFP-LC	4 port-GE line card for Cisco 12000
4OC12X/ATM-IR-SC	4-port OC12/STM4 ATM SM-IR ISE LC with SC connector
4OC12X/ATM-MM-SC	4-port OC12/STM4 ATM MM ISE LC with SC connector
4OC12X/POS-I-SC-B	4 PORT OC12 POS B
4OC12X/POS-M-SC-B	4-port OC12/POS Eng3 Multi-mode
4OC12X/SRP-IR-LC	4 port OC-12c/STM-4c SRP ISE Line Card, 1310nm IR, LC
4OC12X/SRP-XR-LC	4 port OC-12c/STM-4c SRP ISE Line Card, 1550nm XR, LC
4OC3X/ATM-IR-SC	4-port OC3/STM1 ATM SM-IR ISE LC with SC connector
4OC3X/ATM-MM-SC	4-port OC3/STM1 ATM MM ISE LC with SC connector
4OC3X/POS-IR-LC-B	GSR 4-port OC3/POS IR Eng3 release B
4OC3X/POS-LR-LC-B	GSR 4-port OC3/POS LR Eng3 release B
4OC3X/POS-MM-MJ-B	GSR 4-port OC3/POS MM Eng3 release B
4OC48E/POS-LR-SC	Edge 4 Port OC-48c/STM-16c SONET/SDH LR with SC
4OC48E/POS-SR-SC	Edge 4 Port OC-48c/STM-16c SONET/SDH SR with SC
4OC48/SRP-SFP	4 Port OC48c/STM16c SRP Linecard, SFP Optics
6CT3-SMB	Channelized T3 for the GSR
6DS3-SMB-B	6DS3-SMB-B w/ ECC
6E3-SMB	E3 line card, 6 ports

8FE-FX-SC-B	GSR 8-port 100baseFX, SC connector, version B
8FE-TX-RJ45-B	8-port 100baseTX, RJ45 connector type, version B
8OC3X/POS-IR-LC-B	GSR 8-port OC3/POS IR Eng3 release B
8OC3X/POS-MM-MJ-B	GSR 8-port OC3/POS MM Eng3 release B
CHOC12/DS1-IR-SC	GSR12000 Channelized OC12/STM4 to DS1 (Engine3 based)
CHOC48/DS3-SR-SC	1 port Channelized OC-48 to DS3
EPA-3GE-SX/LH-LC	Cisco 12000 3-Port GE Port Adapter for EPA-GE/FE-BBRD
EPA-GE/FE-BBRD	Cisco 12000 Modular GE Baseboard w/ 1GE and 3 EPA Slots
LC-10C12/ATM-MM	1 port OC12/STM4 ATM Line Card, Multi-Mode
LC-10C12/ATM-SM	1 port OC12/STM4 ATM Line Card, Single-Mode
LC-10C12/POS-MM	1 port OC12/STM4 Packet Over SONET/SDH Line Card, Multi-Mode
LC-10C12/POS-SM	1 port OC12/STM4 Packet Over SONET/SDH Line Card, Single-Mode
OC192E/POS-IR-SC	1 Port OC192c/STM64c POS Edge Card, 1550nm IR, SC
OC192E/POS-LR-SC	OC192/STM64 Packet over Sonet Long Reach with SC
OC192E/POS-SR-SC	1 Port OC192c/STM64c POS Edge Card, 1310nm SR, SC
OC192E/POS-VSR	1 Port OC192c/STM64c POS Edge Card, VSR Optics
OC192/SRP-IR-PR	Two OC192/SRP-IR-SC Linecards With One CBL-SRP-OC192 Cable
OC192/SRP-IR-SC	1 Port OC192c/STM64c SRP Linecard, 1550nm IR, SC
OC192/SRP-SR-PR	Two OC192/SRP-SR-SC Linecards With One CBL-SRP-OC192 Cable
OC192/SRP-SR-SC	1 Port OC192c/STM64c SRP Linecard, 1310nm SR, SC
OC192/SRP-VSR	1 Port OC192c/STM64c SRP Linecard, 850nm VSR, MTP
OC192/SRP-VSR-PR	Two OC192/SRP-VSR Linecards With One CBL-SRP-OC192 Cable
OC48/SRP-LR-B-PR	Two OC48/SRP-LR-SC-B Line Cards with MATE Cable
OC48/SRP-LR-SC-B=	OC48 SRP Rev-B Line Card, Single Mode, Long Reach
OC48/SRP-SR-B-PR	Two OC48/SRP-SR-SC-B Line Cards with MATE Cable, GSR
OC48/SRP-SR-SC-B=	OC48 SRP Rev-B Line Card, Single Mode, Short Reach, GSR
OC48X/POS-LR-SC	CONCATENATED OC48 WITH EXTENDED FEATURES LONG REACH
OC48X/POS-SR-SC	1 port OC48 POS Extended features
12000-SIP-400	Cisco 12000 Series SPA Interface Processor-400
12000-SIP-400=	Cisco 12000 Series SPA Interface Processor-400, spare

1. Some parts have restricted access or are not available through distribution channels.

For More Information

See the Cisco XR 12000 and 12000 Series Web site: <http://www.cisco.com/go/12000>

