Cisco 220 Series Smart Switches

Simple, secure, and smart business network at affordable prices

In today's fast-paced business environment, business owners are becoming more selective in their IT investments, including the network infrastructure. The network is a critical platform for business productivity, and a fast, reliable, and secure network is more important than ever to help you stay ahead of the competition and grow your business. With a limited budget, getting the most value for your money becomes especially important.

For businesses requiring high performance, security, and manageability from network switches, fully managed switches are an excellent choice. However, they typically come with high price tags. Smart switches provide the right level of network features and capabilities for growing businesses at lower prices, so you have more dollars to invest where they're most needed.

Figure 1.   Cisco 220 Series Smart Switches

Cisco 220 Series Smart Switches

The Cisco® 220 Series, part of the Cisco small and midsize business portfolio, is a series of affordable smart switches equipped with security, performance, and ease of use to help build a solid business network within a restricted budget. Offered with a limited lifetime warranty, these switches deliver a powerful combination of features at a lower cost than fully managed switches.

The Cisco 220 Series includes a broad range of smart switches that provide Fast Ethernet and Gigabit Ethernet access with Power over Ethernet (PoE) Plus options. With an intuitive web interface, energy-saving technologies, and rich customizable features, these switches can not only improve the productivity for your business today, but also meet the evolving network demands in the future.

Business Applications

With Cisco 220 Series switches, you can not only build an efficient and reliable network to connect the workforce, but also advanced solutions to deliver data, voice, and video services on a converged infrastructure. Get the best value for your money by improving the productivity of employees. Possible deployment scenarios include:

- **Secured desktop connectivity.** Cisco 220 Series switches can quickly and reliably connect employees working in small offices with each other and with all of the servers, printers, and other devices they use. With device authentication and access control, you can maintain the integrity of key business information while keeping you employees connected and productive.
- **Flexible wireless connectivity.** With PoE+ support, and comprehensive security and Quality of Service (QoS) capabilities, Cisco 220 Series switches provide a solid foundation to add business-grade wireless to the network. You can easily move up to a cutting-edge 802.11ac wireless access point to increase workforce productivity without worrying about power and throughput.
- **Unified communications.** The Cisco 220 Series switches provide QoS features to automatically prioritize delay-sensitive traffic to help you easily deploy an IP-based communication solution on a converged network. PoE+ support can enable IP cameras and videophones to be easily added to your current network. Cisco offers a complete portfolio of IP telephony and other unified communications products designed for small businesses. Cisco 220 Series switches have been rigorously tested to help ensure easy integration and full compatibility with these and other vendor products.

Features and benefits

Smart switches are typically low priced but limited in functionality. The Cisco 220 Series provides rich features designed for growing businesses while maintaining the affordability of smart switches.

- **Simple and flexible management.** Cisco 220 Series switches are easy to deploy and use for both nontechnical users and IT professionals. These switches provide management options such as Simple Network Management Protocol (SNMP) and a Command-Line Interface (CLI), besides the intuitive, web-based interface and Cisco FindIT utility.
- **Power over Ethernet Plus.** PoE+ streamlines the deployment for wireless access points, IP telephony, and video surveillance by allowing power and data to run over a single network cable. Cisco 220 Series switches support PoE+, which provides up to 30 watts of power per port. PoE+ can enable deployments for 802.11ac wireless access points, Pan Tilt Zoom (PTZ) IP cameras, and videophones, delivering more flexibility and investment protection.
- **A higher level of security and intelligence.** Access Control Lists (ACLs) and flow-based QoS give you more control over network performance, maintain the integrity of key business information, and enable higher network efficiency.

In addition, the Cisco 220 Series provides capabilities that help you create business-class networks. These features deliver a solution to simplify the operation, increase uptime, and ultimately get your business better connected to employees, customers, and suppliers. Some primary features include:

- **Easy configuration and deployment.** Cisco 220 Series switches are designed to be easy to deploy and use by small and medium-sized businesses and the partners that manage them. The simple and intuitive web-based interfaces allow even users without extensive IT expertise to configure, manage, and troubleshoot the switch in minutes. Other ease-of-use features include:

  - Cisco Discovery Protocol (CDP) and Link Layer Discovery Protocol – Media Endpoint Discovery (LLDP-MED). Automatically detect all the devices connected to your network. Then automatically configure the switch itself with the appropriate settings and instruct the end devices on the appropriate voice VLAN or QoS parameters to use.

  - Cisco FindIT Network Discovery Utility. This feature works through a simple toolbar on the user's web browser to discover Cisco devices on the network and display basic information, such as serial numbers and IP addresses. It aids in quicker configuration and deployment of Cisco small and midsize business products. For more information, and to download the utility, visit https://www.cisco.com/c/en/us/products/cloud-systems-management/small-business-findit-network-discovery-utility/index.html.

  - The FindIT Network Manager and Probe are designed to manage Cisco 100 to 500 Series switches, routers, and wireless access points. They let you proactively manage the network instead of just reacting to events. FindIT Network Management is the perfect addition to your business's network. For more information, visit https://www.cisco.com/c/en/us/products/cloud-systems-management/findit-network-management/index.html

- **Flexible network management capabilities.** Cisco 220 Series switches provide more flexibility for network management through the following:

  - Remote management. Using SNMP, you can set up and manage all switches and other Cisco devices in your network remotely.

  - Command-Line Interface (CLI). The switches can be managed using a CLI. This capability can enable scripted or automated deployment for network professionals.

  - Dual image support. With the ability to maintain two images in permanent storage instead of only a single image, as is traditionally supported on smart switches, you can perform software upgrades without taking the network offline or worrying about an outage because of a bad image file. This reduces switch downtime when the firmware is being upgraded or downgraded.

  - Dual configuration files support. Configure the device, validating that it is done correctly, and then save this configuration to take effect after reboot. Additionally, a mirror configuration file provides automatic backup of the latest stable configuration file.

  - IPv6 support. Cisco 220 Series switches provide native support for IPv6, as well as the previous IPv4 standard. As a result, you can migrate to the next generation of networking applications and operating systems without an equipment upgrade.

- **Reliability and performance.** Cisco 220 Series switches have been tested to deliver the high availability and performance that users have come to expect from Cisco switches. The switches speed up file transfer times, keep vital business applications available, and help your employees respond more quickly to customers and each other. With enhanced QoS capabilities, the Cisco 220 Series also gives you the flexibility to manage and prioritize high-bandwidth traffic so you can easily integrate all the business communications and connectivity needs on a single converged infrastructure.

- **Network security.** The Cisco 220 Series switches provide new levels of security for smart switches and deliver more ways to safeguard your network.
  - Support for network security applications such as IEEE 802.1X and port security can tightly limit access to specific segments of your network.
  - Guest virtual LANs (VLANs) let you provide Internet connectivity to nonemployee users while isolating critical business services from guest traffic.
  - Extensive ACLs can restrict sensitive portions of the network from unauthorized users and guard against network attacks.
  - Security mechanisms such as broadcast/multicast/unknown unicast storm control and Bridge Protocol Data Unit (BPDU) guard can protect the network from invalid configurations or malicious intent.
  - Denial-Of-Service (DOS) attack prevention helps to increase uptime in the event of a network attack.
  - Protect management sessions using RADIUS, TACACS+, and support local database authentication as well as secure management communication over SSL, SSH, and SNMPv3.

- **IP telephony support.** Cisco 220 Series switches include embedded QoS intelligence to prioritize delay-sensitive services such as voice and video. They can simplify unified communications deployments, and help ensure consistent network performance for all services. For example, automated voice VLAN capabilities let you plug any IP phone (including third-party phones) into your IP telephony network and receive an immediate dial tone. The switch automatically configures the device with the right VLAN and QoS parameters to prioritize voice traffic.

- **Optimal energy efficiency.** Cisco 220 Series switches are designed with Energy Efficient Ethernet (IEEE 802.3az) and Energy Detect support on all models, as well as fanless designs on selected models. These designs help you save operational expenses and reduce your environmental footprint.

- **Peace of mind and investment protection.** Cisco 220 Series switches offer the reliable performance, investment protection, and peace of mind you expect from a Cisco switch. They have undergone rigorous testing to help ensure easy integration and compatibility with other Cisco networking and communications products, including the complete Cisco Small Business portfolio.

- **Limited lifetime hardware warranty.** The Cisco 220 Series switches come with the Cisco limited lifetime hardware warranty. This includes return-to-factory replacement (1-year limited warranty for fans and power supplies) and a 90-day limited software warranty. Additionally, Cisco offers software updates for bug fixes for the warranty term, and telephone technical support at no charge for the first 12 months following the date of purchase.

Cisco small and midsize business products are supported by professionals in Cisco Small Business Support Center locations worldwide who are specifically trained to understand your needs. Community-based online support is also provided through the award-winning Cisco Support Community.

Product warranty terms and other information applicable to Cisco products are available at https://www.cisco.com/go/warranty.

To download software updates, go to https://www.cisco.com/cisco/web/download/index.html.

- **World-class support.** To extend the support coverage beyond the warranty provisions, you can choose Cisco Smart Net Total Care™ Service, which helps you get the most value from Cisco solutions, providing peace of mind at an affordable price. The subscription-based service offers next-business-day advanced hardware replacement, software upgrades, access to the Cisco Small Business Support Center, and telephone and online chat support.

  To learn more, visit https://www.cisco.com/go/smbservices.

  To find out where Cisco Smart Net Total Care Service is available by country, go to https://supportforums.cisco.com/t5/regional-service-support-options/bd-p/4626-discussions-smb-support-country

Product specifications

Table 1 lists the product specifications for the Cisco 220 Series Smart Switches.

Table 1.   Product specifications

Feature	Description		
Performance			
Switching Capacity	Model name	Forwarding rate in millions of packets per second (mpps; 64-byte packets)	Switching capacity in Gigabits per second
	SF220-24	6.55	8.8
	SF220-24P	6.55	8.8
	SF220-48	10.12	13.6
	SF220-48P	10.12	13.6
	SG220-26	38.69	52
	SG220-26P	38.69	52
	SG220-28MP	41.67	56
	SG220-50	74.40	100
	SG220-50P	74.40	100
Layer 2 switching			
MAC table	Up to 8,192 MAC addresses		
Spanning Tree Protocol (STP)	Standard 802.1d Spanning Tree support, enabled by default Fast convergence using 802.1w (Rapid Spanning Tree [RSTP]) Multiple Spanning Tree instances using 802.1s (MSTP) 16 instances are supported		
Port grouping	Support for IEEE 802.3ad Link Aggregation Control Protocol (LACP) • Up to 8 groups • Up to 8 ports per group with 16 candidate ports for each (dynamic) 802.3ad link aggregation Load balance based on source and destination MAC address, or source and destination MAC/IP		

Feature	Description
VLAN	Support for up to 256 VLANs simultaneously Port-based and 802.1Q tag-based VLANs Management VLAN Guest VLAN
Auto voice VLAN	Voice traffic is automatically assigned to a voice-specific VLAN and treated with appropriate levels of QoS
QinQ VLAN	VLANs transparently cross a service provider network while isolating traffic among customers
Generic VLAN Registration Protocol (GVRP) and Generic Attribute Registration Protocol (GARP)	Protocols for automatically propagating and configuring VLANs in a bridged domain
Head-Of-Line (HOL) blocking	HOL blocking prevention
Jumbo frame	Frame sizes up to 9,216 supported
Loopback detection	Loopback detection provides protection against loops by transmitting loop protocol packets out of ports on which loop protection has been enabled. It operates independently of STP.
Automatic Media-Dependent Interface Crossover (MDIX)	Automatically adjusts transmit and receive pairs if an incorrect cable type (crossover or straight-through) is installed.
Security	
ACLs	Drop or rate limit based on source and destination MAC, VLAN ID or IP address, protocol, port, Differentiated Services Code Point (DSCP)/IP precedence, TCP/UDP source and destination ports, 802.1p priority, Ethernet type, Internet Control Message Protocol (ICMP) packets, IGMP packets, TCP flag Support up to 512 rules
Port security	Creates the ability to lock source MAC addresses to ports; limits the number of learned MAC addresses
IEEE 802.1X (authenticator role)	802.1X: RADIUS authentication; guest VLAN; Single-host, multiple-host, and multisession mode
RADIUS, TACACS+	Supports RADIUS and TACACS authentication; switch functions as a client
MAC address filtering	Supported
Storm control	Broadcast, multicast, and unknown unicast
DoS protection	DOS attack prevention
STP Bridge Protocol Data Unit (BPDU) Guard	This security mechanism protects the network from invalid configurations. A port enabled for BPDU Guard is shut down if a BPDU message is received on that port
Spanning Tree Loop Guard	This feature provides additional protection against Layer 2 forwarding loops (STP loops).
Secure Shell (SSH) Protocol	SSH is a secure replacement for Telnet traffic. SCP also uses SSH. SSH v1 and v2 are supported
Secure Sockets Layer (SSL)	SSL support: Encrypts all HTTPS traffic, allowing highly secure access to the browser-based management GUI in the switch
QoS	
Priority levels	8 hardware queues per port
Scheduling	Strict priority and Weighted Round-Robin (WRR) queue assignment based on DSCP and class of service (802.1p/CoS)
Class of service	Port-based; 802.1p VLAN priority-based; IPv4/v6 IP precedence, Type of Service (ToS), and DSCP-based; Differentiated Services (DiffServ); classification and re-marking ACLs, trusted QoS
Rate limiting	Ingress policer; egress shaping and rate control; per VLAN, per port, and flow-based
Congestion avoidance	A TCP congestion avoidance algorithm is required to reduce and prevent global TCP loss synchronization
Multicast	
Internet Group Management Protocol (IGMP) Versions 1, 2, and 3 Snooping	IGMP limits bandwidth-intensive multicast traffic to only the requesters; supports 256 multicast groups
IGMP querier	IGMP querier is used to support a Layer 2 multicast domain of snooping switches in the absence of a multicast router

Feature	Description
Standards	
Standards	IEEE 802.3 10BASE-T Ethernet, IEEE 802.3u 100BASE-TX Fast Ethernet, IEEE 802.3ab
	1000BASE-T Gigabit Ethernet, IEEE 802.3ad LACP, IEEE 802.3z Gigabit Ethernet, IEEE
	802.3x Flow Control, IEEE 802.1D (STP, GARP, and GVRP), IEEE 802.1Q/p VLAN, IEEE
	802.1w RSTP, IEEE 802.1s Multiple STP, IEEE 802.1X Port Access Authentication, IEEE
	802.3af, IEEE 802.3at, RFC 768, RFC 783, RFC 791, RFC 792, RFC 793, RFC 813, RFC 879, RFC 896, RFC 826, RFC 854, RFC 855, RFC 856, RFC 858, RFC 894, RFC 919, RFC 922, RFC 920, RFC 950, RFC 1042, RFC 1071, RFC 1123, RFC 1141, RFC 1155, RFC 1157, RFC
	1350, RFC 1533, RFC 1541, RFC 1624, RFC 1700, RFC 1867, RFC 2030, RFC 2616, RFC
	2131, RFC 2132, RFC 3164, RFC 3411, RFC 3412, RFC 3413, RFC 3414, RFC 3415, RFC
	2576, RFC 4330, RFC 1213, RFC 1215, RFC 1286, RFC 1442, RFC 1451, RFC 1493, RFC
	1573, RFC 1643, RFC 1757, RFC 1907, RFC 2011, RFC 2012, RFC 2013, RFC 2233, RFC
	2618, RFC 2665, RFC 2666, RFC 2674, RFC 2737, RFC 2819, RFC 2863, RFC 1157, RFC
	1493, RFC 1215, RFC 3416
IPv6	
IPv6	IPv6 host mode
	IPv6 over Ethernet
	IPv6/IPv4 Dual Stack
	IPv6 neighbor and router discovery (ND)
	IPv6 stateless address auto-configuration
	Path Maximum Transmission Unit (MTU) discovery
	Duplicate Address Detection (DAD)
	ICMP version 6
IPv6 ACL	Drop or rate limit IPv6 packets in hardware
IPv6 QoS	Prioritize IPv6 packets in hardware
Multicast Listener Discovery (MLD v1/2) Snooping	Deliver IPv6 multicast packets only to the required receivers
IPv6 applications	Web/SSL, Telnet server/SSH, DHCP Client, DHCP Autoconfig, CDP, LLDP
IPv6 RFCs supported	RFC 4443 (which obsoletes RFC2463) - ICMP version 6
	RFC 4291 (which obsoletes RFC 3513) - IPv6 address architecture
	RFC 4291 - IPv6 addressing architecture
	RFC 2460 - IPv6 specification
	RFC 4861 (which obsoletes RFC 2461) - Neighbor discovery for IPv6
	RFC 4862 (which obsoletes RFC 2462) - IPv6 stateless address auto-configuration
	RFC 1981 - Path MTU discovery
	RFC 4007 - IPv6 scoped address architecture
	RFC 3484 - Default address selection mechanism
Management	
Web user interface	Built-in switch configuration utility for easy browser-based device configuration (HTTP/HTTPS). Supports configuration, system dashboard, system maintenance, and monitoring
Text-editable config files	Config files can be edited with a text editor and downloaded to another switch, facilitating easier mass deployment
Command-line interface	Scriptable CLI; a full CLI is supported. User privilege levels 1 and 15 are supported for the CLI
Cloud services	Support for Cisco FindIT Network Manager
SNMP	SNMP versions 1, 2c, and 3 with support for traps, and SNMP version 3 User-based Security Model (USM)

Feature	Description	
Standard MIBs	MIB-II (RFC1213)	Generic Traps MIB (RFC1215)
	IF-MIB (RFC2863)	SNMP-COMMUNITY-MIB
	Bridge-MIB (RFC4188)	SNMP-MIB
	Bridge-MIB-Extension (RFC2674)	LLDP-MIB
	RMON (RFC2819)	LLDP-EXT-MED-MIB
	Etherlike MIB (RFC3635)	IEEE8023-LAG-MIB
	Radius Client MIB (RFC2618)	CISCO-PORT-SECURITY-MIB
	Entity MIB (RFC2737)	CISCO-ENVMON-MIB
	POWER-ETHERNET-MIB (RFC3621)	CISCO-CDP-MIB
	Syslog MIB (RFC3164)	CISCO-CONFIG-COPY-MIB
Remote Monitoring (RMON)	Embedded RMON software agent supports 4 RMON groups (history, statistics, alarms, and events) for enhanced traffic management, monitoring, and analysis	
IPv4 and IPv6 dual stack	Coexistence of both protocol stacks to ease migration	
Port mirroring	Traffic on a port or VLAN can be mirrored to another port for analysis with a network analyzer or RMON probe. Up to 8 source ports can be mirrored to one destination port. Four sessions are supported.	
Firmware upgrade	• Web browser upgrade (HTTP/HTTPS) and Trivial File Transfer Protocol (TFTP) • Dual images for resilient firmware upgrades	
DHCP (Option 12, 66, 67, 82, 129, and 150)	DHCP options facilitate tighter control from a central point (DHCP server) to obtain IP address, auto-configuration (with configuration file download), DHCP relay, and hostname	
Time synchronization	Simple Network Time Protocol (SNTP)	
Login banner	Configurable multiple banners for web as well as CLI	
Other management	HTTP/HTTPS; TFTP upgrade; DHCP client; BOOTP; cable diagnostics; ping; traceroute; syslog	
Discovery		
Bonjour	The switch advertises itself using the Bonjour protocol	
Link Layer Discovery Protocol (LLDP) (802.1ab) with LLDP-MED Extensions	LLDP allows the switch to advertise its identification, configuration, and capabilities to neighboring devices that store the data in a MIB. LLDP-MED is an enhancement to LLDP that adds the extensions needed for IP phones.	
Cisco Discovery Protocol	The switch advertises itself using the Cisco Discovery Protocol. Display brief information for connected Cisco network devices, IP phones, and wireless access points	
Minimum requirements		
Web configuration	Browser: Internet Explorer 8 or later; Mozilla Firefox 20 or later; Google Chrome 23 or later; Safari 5.1 or later	
Power efficiency		
EEE compliance (802.3az)	Support 802.3az Energy Efficient Ethernet on all ports; substantially reduce the power consumption when link bandwidth is not at full utilization	
Energy Detect	Automatically turns power off on Gigabit Ethernet and 10/100 RJ-45 ports when detecting a link down Active mode is resumed without loss of any packets when the switch detects the link up	
Disable port LEDs	LEDs can be manually turned off to save on energy	
Time-based PoE	PoE power can be on or off based on user-defined schedule to save energy	
Time-based port operation	Link up or down based on user-defined schedule (when the port is administratively up)	

Feature	Description		
Power over Ethernet			
802.3af PoE or 802.3at PoE+ delivered over any of the RJ-45 network ports within the listed power budgets	Switches support 802.3af, 802.3at, and Cisco pre-standard (legacy) PoE with maximum power of 30 W per port.		
	This applies to the following PoE-enabled models; the maximum number of ports providing PoE power simultaneously is determined by the total PoE budget for the switch listed as below:		
	Model Name	**PoE Power Budget**	**Number of Ports That Support PoE**
	SF220-24P	180 W	24
	SF220-48P	375 W	48
	SG220-26P	180 W	24
	SG220-28MP	375 W	24
	SG220-50P	375 W	48
Pre-standard PoE	Support Cisco Pre-Standard PoE		
Intelligent PoE power management	Support the granular power negotiation with CDP/LLDP communication with PD devices after IEEE classification		

Table 2 outlines the hardware specifications for the Cisco 220 Series Smart Switches.

Table 2.   Hardware specifications

Feature	Description			
Hardware				
Buttons	Reset button			
Cabling type	Unshielded Twisted Pair (UTP) Category 5 or better for 10BASE-T/100BASE-TX; UTP Category 5 Ethernet or better for 1000BASE-T			
LEDs	System, Link/Act, Speed			
Flash	32 MB			
CPU memory	128 MB			
Ports	**Model name**	**Total system ports**	**RJ-45 ports**	**Uplink ports**
	SF220-24	24 Fast Ethernet plus 2 Gigabit Ethernet	24 Fast Ethernet	2 Gigabit Ethernet combo
	SF220-24P	24 Fast Ethernet plus 2 Gigabit Ethernet	24 Fast Ethernet	2 Gigabit Ethernet combo
	SF220-48	48 Fast Ethernet plus 2 Gigabit Ethernet	48 Fast Ethernet	2 Gigabit Ethernet combo
	SF220-48P	48 Fast Ethernet plus 2 Gigabit Ethernet	48 Fast Ethernet	2 Gigabit Ethernet combo
	SG220-26	26 Gigabit Ethernet	24 Gigabit Ethernet	2 Gigabit Ethernet combo
	SG220-26P	26 Gigabit Ethernet	24 Gigabit Ethernet	2 Gigabit Ethernet combo
	SG220-28MP	28 Gigabit Ethernet	24 Gigabit Ethernet	4 Gigabit Ethernet SFP
	SG220-50	50 Gigabit Ethernet	48 Gigabit Ethernet	2 Gigabit Ethernet combo
	SG220-50P	50 Gigabit Ethernet	48 Gigabit Ethernet	2 Gigabit Ethernet combo
Packet Buffer	All numbers are aggregate across all ports as the buffers are dynamically shared			
	Model name		**Packet buffer**	
	SF220-24		4.1 Mb	
	SF220-24P		4.1 Mb	
	SF220-48		12 Mb	
	SF220-48P		12 Mb	
	SG220-26		4.1 Mb	
	SG220-26P		4.1 Mb	

Feature	Description			
	SG220-28MP	4.1 Mb		
	SG220-50	12 Mb		
	SG220-50P	12 Mb		
Supported SFP Modules	SKU	Media	Speed	Maximum distance
	MGBSX1	Multimode fiber	1000 Mbps	550 m
	MGBLX1	Single-mode fiber	1000 Mbps	10 km
	MGBLH1	Single-mode fiber	1000 Mbps	40 km
	MGBBX1	Single-mode fiber	1000 Mbps	40 km
	MGBT1	UTP Category 5	1000 Mbps	100 m
Environmental				
Dimensions (W x H x D)	SF220-24, SF220-48, SG220-26, SG220-50 440 x 44 x 201 mm SF220-24P, SG220-26P, SG220-28MP 440 x 44 x 250 mm SF220-48P, SG220-50P 440 x 44 x 350 mm			
Unit weight	SF220-24: 2.6 kg SF220-24P: 3.64 kg SF220-48: 2.98 kg SF220-48P: 5.12 kg	SG220-26: 2.81 kg SG220-26P: 3.7 kg SG220-28MP: 4.26 kg SG220-50: 3.3 kg SG220-50P: 5.28 kg		
Power	100-240 V, 50-60 Hz, Internal			
Certifications	UL (UL 60950), CSA (CSA 22.2), CE mark, FCC Part 15 (CFR 47) Class A, C-tick			
Operating temperature	0-50° C			
Storage temperature	-20° C to +70° C			
Operating humidity	10% to 90%, relative, noncondensing			
Storage humidity	10% to 90%, relative, noncondensing			
Power Consumption	Model name	Green power (mode)	System power consumption	Power consumption (with PoE)	Heat dissipation (BTU/hr)
	SF220-24	EEE + Energy Detect	110V=8.2W 220V=9.2W	N/A	28.0
	SF220-24P	EEE + Energy Detect	110V=19.9W 220V=21.1W	110V=191.5W 220V=188.5W	653.4
	SF220-48	EEE + Energy Detect	110V=13.2W 220V=13.7W	N/A	45.0
	SF220-48P	EEE + Energy Detect	110V=39.5W 220V=39.7W	110V=413W 220V=405W	1409.2
	SG220-26	EEE + Energy Detect	110V=18.9W 220V=18.2W	N/A	64.5
	SG220-26P	EEE + Energy Detect	110V=29.1W 220V=30.7W	110V=206.5W 220V=200.7W	704.6
	SG220-28MP	EEE + Energy Detect	110V=40.1W 220V=40.5W	110V=426W 220V=417W	1,453.6
	SG220-50	EEE + Energy Detect	110V=36.6W 220V=39.9W	N/A	124.9
	SG220-50P	EEE + Energy Detect	110V=59.4W 220V=63.2W	110V=426W 220V=427W	1453.6

Feature	Description			
Acoustic Noise and Mean Time Between Failure (MTBF)	**Model name**	**Fan (number)**	**Acoustic noise**	**MTBF @ 50°C (hours)**
	SF220-24	No fan	N/A	603,729
	SF220-24P	2 pcs/6300 rpm and Fan speed control	<32°C=26.4dB 32°C-40°C=38.6dB >40°C=41.9dB	445,488
	SF220-48	No fan	N/A	369,704
	SF220-48P	4 pcs/9500 rpm and Fan speed control	<32°C=39dB 32°C-40°C=50.3dB >40°C=52dB	210,753
	SG220-26	No fan	N/A	342,867
	SG220-26P	2 pcs/6300 rpm and Fan speed control	<32°C=25.6dB 32°C-40°C=37.2dB >40°C=41.5dB	343,684
	SG220-28MP	3 pcs/9500 rpm and Fan speed control	<32°C=31.4dB 32°C-40°C=46.3dB >40°C=52.6dB	212,902
	SG220-50	1 pcs/6300 rpm No fan speed control	40.3dB	382,742
	SG220-50P	4 pcs/9500 rpm and fan speed control	<32°C=39.1dB 32°C-40°C=50.5dB >40°C=52dB	194,036
Warranty				
Warranty term	Limited lifetime hardware warranty			
Package contents				
Package contents	• Cisco 220 Series Ethernet switch • Power cord • Mounting kit included in all SKUs • Console cable • Quick start guide			

Ordering information

Table 3 provides ordering information for Cisco 220 Series Smart Switches.

Table 3.   Ordering information

Model name	Order product ID	Description
Fast Ethernet		
SF220-24	SF220-24-K9-xx	24 10/100 ports 2 Gigabit RJ45/SFP combo port
SF220-24P	SF220-24P-K9-xx	24 10/100 PoE+ ports with 180 W power budget 2 Gigabit RJ45/SFP combo port
SF220-48	SF220-48-K9-xx	48 10/100 ports 2 Gigabit RJ45/SFP combo port
SF220-48P	SF220-48P-K9-xx	48 10/100 PoE+ ports with 375 W power budget 2 Gigabit RJ45/SFP combo port
Gigabit Ethernet		
SG220-26	SG220-26-K9-xx	24 10/100/1000 ports 2 Gigabit RJ45/SFP combo port
SG220-26P	SG220-26P-K9-xx	24 10/100/1000 PoE+ ports with 180 W power budget 2 Gigabit RJ45/SFP combo port
SG220-28MP	SG220-28MP-K9-xx	24 10/100/1000 PoE+ ports with 375 W power budget 4 Gigabit SFP port
SG220-50	SG220-50-K9-xx	48 10/100/1000 ports 2 Gigabit RJ45/SFP combo port
SG220-50P	SG220-50P-K9-xx	48 10/100/1000 PoE+ ports with 375 W power budget 2 Gigabit RJ45/SFP combo port

Each combo port has one 10/100/1000 copper Ethernet port and one SFP Gigabit Ethernet slot, with one port active at a time.

The -xx in the product ID is a country/region-specific suffix. For example, the complete product ID of SG220-26 for the United States is SG220-26-K9-NA. Please refer to Table 4 for the suffix to use for your country or region.

Table 4.   Country/region suffix for product ID

Suffix	Country/region
-NA	USA, Canada, Mexico, Colombia, Chile and rest of LATAM
-BR	Brazil
-AR	Argentina
-EU	EU, Russia, Ukraine, Israel, UAE, Turkey, Egypt, South Africa, Indonesia, Philippines, Vietnam, Thailand, India, Korea
-UK	United Kingdom, Saudi Arabia, Qatar, Kuwait, Singapore, Hong Kong, Malaysia
-AU	Australia, New Zealand
-CN	China

The products may also be available in countries/regions not listed above. Not all product models are offered in all countries/regions. Please consult with your local Cisco sales representative or Cisco partners for more details.

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