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# Cisco 350 Series Managed Switches

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# Easy-to-Use Managed Switches That Provide the Ideal Combination of Features and Affordability

To stay ahead in a competitive marketplace, businesses need to make every dollar count. That means getting the most value from your technology investments, but it also means making sure that employees have fast, reliable access to the business tools and information they need. Every minute an employee waits for an unresponsive application and every minute your network is down has an effect on your profits. The importance of maintaining a strong and dependable business network only grows as your business adds more employees, applications, and network complexity.

When your business needs advanced security and features but value is still a top consideration, you're ready for the new generation of Cisco<sup>®</sup> Small Business managed switches: the Cisco 350 Series (Figure 1).



**Figure 1.** Cisco 350 Series Managed Switches

### Cisco 350 Series Switches

The Cisco 350 Series, part of the Cisco Small Business line of network solutions, is a portfolio of affordable managed switches that provides a reliable foundation for your business network. These switches deliver the features you need to improve the availability of your critical business applications, protect your sensitive information, and optimize your network bandwidth to deliver information and applications more effectively. Easy to set up and use, the Cisco 350 Series provides the ideal combination of affordability and capabilities for small businesses and helps you create a more efficient, better-connected workforce.

The Cisco 350 Series is a broad portfolio of fixed-configuration managed Ethernet switches. Models are available with 8 to 48 ports of Fast Ethernet and 10 to 52 ports of Gigabit Ethernet connectivity, providing optimal flexibility to create exactly the right network foundation for your business. However, unlike other small business switching solutions that provide managed network capabilities only in the costliest models, all Cisco 350 Series Switches support the advanced security management capabilities and network features you need to support business-class data, voice, security, and wireless technologies. At the same time, these switches are simple to deploy and configure, allowing you to take advantage of the managed network services your business needs.

## **Business applications**

Whether you need a basic high-performance network to connect employee computers or a solution to deliver data, voice, and video services, the Cisco 350 Series offers a solution to meet your needs. Possible deployment scenarios include:

- Secure desktop connectivity: Cisco 350 Series Switches can simply and securely connect employees
  working in small offices with each other and with all of the servers, printers, and other devices they use.
  High performance and reliable connectivity help speed file transfers and data processing, improve
  network uptime, and keep your employees connected and productive.
- Secure wireless connectivity: With its advanced security features, Power over Ethernet, Auto Smartports, QoS, VLAN, and access control features, the Cisco 350 Series Switches are the perfect foundation to add business-grade wireless to a business network.
- Unified communications: As a managed network solution, the Cisco 350 Series provides the
  performance and advanced traffic-handling intelligence you need to deliver all communications and data
  over a single network. Cisco offers a complete portfolio of IP telephony and other unified
  communications products designed for businesses. Cisco 350 Series Switches have been rigorously
  tested to help ensure easy integration and full compatibility with these and other products, providing a
  complete business solution.
- Highly secure guest connectivity: Cisco 350 Series Switches let you extend highly secure network
  connectivity to guests in a variety of settings, such as a hotel, an office waiting room, or any other area
  open to nonemployee users. Using powerful but easy-to-configure security and traffic segmentation
  capabilities, you can isolate your vital business traffic from guest services and keep guests' network
  sessions private from each other.

#### Features and benefits

Cisco 350 Series switches provide the advanced feature set that growing businesses require and that high-bandwidth applications and technologies demand. These switches can improve the availability of your critical applications, protect your business information, and optimize your network bandwidth to more effectively deliver information and support applications. The switches provide the following benefits.

#### **Ease of management and deployment**

Cisco 350 Series switches are designed to be easy to use and manage by commercial customers or the partners that serve them. They feature:

- Cisco Smart Network Application (SNA) is an innovative network-level monitoring and management tool
  embedded in Cisco 100 to 500 Series switches. It can discover network topology, display link status,
  monitor events, apply configurations, and upgrade software images across multiple switches in the
  network.
- The FindIT Network Manager and Probe are designed to manage Cisco 100 to 500 Series switches, routers, and wireless access points. The Manager lets you proactively manage the network instead of just reacting to events. FindIT Network Management is the perfect addition to your business network. For more information, visit <a href="https://www.cisco.com/go/findit">https://www.cisco.com/go/findit</a>.

- The Cisco FindIT Network Discovery Utility works through a simple toolbar on your web browser to
  discover Cisco devices on the network and display basic device information, inventory, and new
  firmware updates to aid in the configuration and speed the deployment of Cisco Small Business
  products. For more information, visit <a href="https://www.cisco.com/go/findit">https://www.cisco.com/go/findit</a>.
- The USB port on the front panel of the switch enables easy image and configuration transfer for faster deployment or upgrade.
- Simple-to-use graphical interfaces reduce the time required to deploy, troubleshoot, and manage the network and allow you to support sophisticated capabilities without increasing IT head count.
- The switches also support Textview, a full Command-Line Interface (CLI) option for partners that prefer it.
- Using Auto Smartports intelligence, the switch can detect a network device connected to any port and automatically configure the optimal security, Quality of Service (QoS), and availability on that port.
- Cisco Discovery Protocol discovers Cisco devices and allows devices to share critical configuration information, simplifying network setup and integration.
- Support for Simple Network Management Protocol (SNMP) allows you to set up and manage your switches and other Cisco devices remotely from a network management station, improving IT workflow and mass configurations.

#### High reliability and resiliency

In a growing business where availability 24 hours a day, 7 days a week is critical, you need to assure that employees can always access the data and resources they need. The Cisco 350 Series supports dual images, allowing you to perform software upgrades without having to take the network offline or worry about the network going down during the upgrade.

#### Strong security

Cisco 350 Series switches provide the advanced security features you need to protect your business data and keep unauthorized users off the network:

- Embedded Secure Sockets Layer (SSL) encryption protects management data traveling to and from the switch.
- Extensive Access Control Lists (ACLs) restrict sensitive portions of the network to keep out unauthorized users and guard against network attacks.
- Guest VLANs let you provide Internet connectivity to nonemployee users while isolating critical business services from guest traffic.
- Support for advanced network security applications such as IEEE 802.1X port security tightly limits
  access to specific segments of your network. Web-based authentication provides a consistent interface
  to authenticate all types of host devices and operating systems, without the complexity of deploying IEEE
  802.1X clients on each endpoint.
- Advanced defense mechanisms, including dynamic Address Resolution Protocol (ARP) inspection, IP Source Guard, and Dynamic Host Configuration Protocol (DHCP) snooping, detect and block deliberate network attacks. Combinations of these protocols are also referred to as IP-MAC port binding (IPMB).

- IPv6 First Hop Security extends the advanced threat protection to IPv6. This comprehensive security
  suite includes ND inspection, RA guard, DHCPv6 guard, and neighbor binding integrity check, providing
  unparalleled protection against a vast range of address spoofing and man-in-the-middle attacks on IPv6
  networks.
- Time-based ACLs and port operation restrict access to the network during predesignated times such as business hours.
- Uniform MAC address-based security can be applied automatically to mobile users as they roam between wireless access points.
- Secure Core Technology (SCT) helps ensure that the switch is able to process management traffic in the face of a Denial-of-Service (DoS) attack.
- Private VLAN Edge (PVE) provides Layer 2 isolation between devices on the same VLAN.
- Storm control can be applied to broadcast, multicast, and unknown unicast traffic.
- Protection of management sessions occurs using RADIUS, TACACS+, and local database authentication as well as secure management sessions over SSL, SSH, and SNMPv3.
- DoS attack prevention maximizes network uptime in the presence of an attack.

#### **Power over Ethernet**

Cisco 350 Series Switches are available with up to 48 PoE ports. This capability simplifies advanced technology deployments such as IP telephony, wireless, and IP surveillance by allowing you to connect and power network endpoints over a single Ethernet cable. With no need to install separate power supplies for IP phones or wireless access points, you can take advantage of advanced communications technologies more quickly and at a lower cost. Models support 802.3af PoE, 802.3at PoE+, and 60 Watt PoE.

#### **Multigigabit performance**

Network needs are changing quickly. Thanks to evolving wireless standards and the rising number of wireless devices, keeping up with data rates and growing traffic can be a challenge. Your traditional Ethernet infrastructure can support speeds up to 1 Gigabit per second (Gbps), but competing today requires much more capacity. One option is completely replacing your older cabling infrastructure and upgrading your hardware. But wouldn't it be better to increase network speed and traffic capacity in a way that's quick, inexpensive, and efficient?

Cisco's new Multigigabit Ethernet switches offer just that: an easy-to-deploy, budget-friendly solution that allows you to increase network speed and bandwidth using your existing cables. By partnering with other industry leaders to form the NBASE-T Alliance, Cisco uses NBASE-T technology to help you get more out of your existing infrastructure. Save time and money by avoiding upgrades and extending the life of your installed cable plants. And discover the benefits of meeting consumer demand for increased bandwidth and speeds without a large initial investment.

Multigigabit Ethernet technology uses capabilities in your existing cabling infrastructure to meet bandwidth requirements and provide up to five times the performance. The technology enables intermediate data rates of 2.5 and 5 Gbps to ease the jump between traditional rates of 1 Gbps and 10 Gbps. These intermediate rates run on most installed cables and preserve older UTP wiring, which is good for 802.11ac wireless LAN applications.

The technology also supports Power over Ethernet (PoE) forms, including PoE+ and 60W PoE. Cisco Multigigabit Ethernet switches help you avoid having to run multiple cables between switches and access points and let your networks welcome next-generation traffic speeds and data rates.

#### Networkwide automatic voice deployment

Using a combination of Cisco Discovery Protocol, LLDP-MED, Auto Smartports, and Voice Services Discovery Protocol (or VSDP, a unique Cisco protocol), customers can deploy an end-to-end voice network dynamically. The switches in the network automatically converge around a single voice VLAN and QoS parameters and then propagate them out to the phones on the ports, where they are discovered. 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.

#### **IPv6** support

As the IP address scheme evolves to accommodate a growing number of network devices, the Cisco 350 Series can support the transition to the next generation of networking and operating systems such as Windows 8, Vista, and Linux. These switches continue to support previous-generation IPv4, allowing you to evolve to the new IPv6 standard at your own pace and helping ensure that your current network will continue to support your business applications in the future. Cisco 350 Series switches have successfully completed rigorous IPv6 testing and have received the USGv6 and IPv6 Gold certification.

#### Advanced layer 3 traffic management

The Cisco 350 Series enables a more advanced set of traffic management capabilities to help growing businesses organize their networks more effectively and efficiently. For example, the switches provide static LAN Layer 3 routing, allowing you to segment your network into workgroups and communicate across VLANs without degrading application performance.

With these capabilities, you can boost the efficiency of your network by offloading internal traffic-handling tasks from your router and allowing it to manage primarily external traffic and security.

#### **Power efficiency**

The Cisco 350 Series integrates a variety of power-saving features across all models, providing the industry's most extensive energy-efficient switching portfolio. These switches are designed to conserve energy by optimizing power use, which helps protects the environment and reduce your energy costs. They provide an eco-friendly network solution without compromising performance. Cisco 350 Series switches feature:

- Support for the Energy Efficient Ethernet (IEEE 802.3az) standard, which reduces energy consumption by monitoring the amount of traffic on an active link and putting the link into a sleep state during quiet periods
- The latest Application-Specific Integrated Circuits (ASICs)
- · Automatic power shutoff on ports when a link is down
- LEDs that can be turned off to save power
- Embedded intelligence to adjust signal strength based on the length of the connecting cable

#### **Expansion ports**

The Cisco 350 Series provides more ports per Gigabit Ethernet switch than traditional switch models, giving you more flexibility to connect and empower your business. Gigabit Ethernet models offer 28 to 52 ports to give you more value, versus the 24-port or 48-port varieties with four shared ports that's common in the market. The Cisco 350 Series also offers small form-factor pluggable (SFP) expansion slots that give you the option to add fiber-optic or Gigabit Ethernet uplink connectivity to the switch. With the ability to increase the connectivity range of the switches, you have more flexibility to design your network around your unique business environment and to easily connect switches on different floors or across the business.

#### Peace of mind and investment protection

Cisco 350 Series switches offer the reliable performance and peace of mind you expect from a Cisco switch. When you invest in the Cisco 350 Series, you gain the benefits of:

- Limited lifetime warranty with Next-Business-Day (NBD) advance replacement (where available; otherwise same day ship).
- A solution that has been rigorously tested to help ensure optimal network uptime to keep employees connected to primary resources and productive.
- A solution designed and tested to easily and fully integrate with other Cisco voice, unified communications, security, and networking products as part of a comprehensive technology platform for your business.
- Complimentary software updates for bug fixes for the warranty term. To download software updates, go to <a href="https://software.cisco.com/download/home">https://software.cisco.com/download/home</a>.
- Telephone technical support at no charge for the first 12 months following the date of purchase.
- Product warranty terms and other information applicable to Cisco products are available at https://www.cisco.com/go/warranty.
- Cisco Small Business products are supported by professionals in Cisco Small Business Support Center locations worldwide who are specifically trained to understand your needs. The Cisco Small Business Support Community, an online forum, enables you to collaborate with your peers and reach Cisco technical experts for support information.

#### **Cisco limited lifetime hardware warranty**

Cisco 350 Series switches offer a limited lifetime hardware warranty with NBD advance replacement (where available; otherwise same day ship) and a limited lifetime warranty for fans and power supplies.

In addition, Cisco offers software application 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. To download software updates, go to <a href="https://software.cisco.com/download/home">https://software.cisco.com/download/home</a>.

Product warranty terms and other information applicable to Cisco products are available at <a href="https://www.cisco.com/go/warranty">https://www.cisco.com/go/warranty</a>.

#### **World-class service and support**

Your time is valuable, especially when you have a problem affecting your business. Cisco 350 Series switches are backed by Cisco SMARTnet<sup>®</sup> Total Care<sup>™</sup> which provides affordable peace-of-mind coverage. Delivered by Cisco and backed by your trusted partner, this comprehensive service includes software updates and access to the Cisco Support Center, and it extends technical service to three years.

Cisco SMB products are supported by professionals in the Cisco Support Center, a dedicated resource for small business customers and networks, with locations worldwide that are specifically trained to understand your needs. You also have access to extensive technical and product information through the Cisco Support Community, an online forum that enables you to collaborate with your peers and reach Cisco technical experts for support information.

## **Product specifications**

Table 1 gives the product specifications for the Cisco 350 Series Switches.

Table 1. Product specifications

Feature	Description		
Performance			
Switching capacity and forwarding rate	Model Name	Capacity in Millions of Packets per Second (mpps) (64-byte packets)	Switching Capacity in Gigabits per Second (Gbps)
All switches are wire speed and nonblocking	SF350-08	1.19	1.6
	SF352-08	4.17	5.6
	SF352-08P	4.17	5.6
	SF352-08MP	4.17	5.6
	SF350-24	9.52	12.8
	SF350-24P	9.52	12.8
	SF350-24MP	9.52	12.8
	SF350-48	13.09	17.6
	SF350-48P	13.09	17.6
	SF350-48MP	13.09	17.6
	SG350-8PD	46.13	62.0
	SG350-10	14.88	20.0
	SG350-10P	14.88	20.0
	SG350-10MP	14.88	20.0
	SG355-10MP	14.88	20.0

Feature	Description		
	SG350-10SFP	14.88	20.0
	SG350-20	29.76	40.0
	SG350-28	41.66	56.0
	SG350-28P	41.66	56.0
	SG350-28MP	41.66	56.0
	SG350-28SFP	41.66	56.0
	SG350-52	77.38	104.0
	SG350-52P	77.38	104.0
	SG350-52MP	77.38	104.0
Layer 2 Switching			
Spanning Tree Protocol	Standard 802.1d Spanning Tree support  Fast convergence using 802.1w (Rapid Spanning Tree [RSTP]), enabled by default  Multiple Spanning Tree instances using 802.1s (MSTP); 8 instances are supported  Per-VLAN Spanning Tree Plus (PVST+) and Rapid PVST+ (RPVST+); 126 instances are supported		
Port grouping/link aggregation	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		
VLAN	Support for up to 4,094 VLANs simultaneously  Port-based and 802.1Q tag-based VLANs; MAC-based VLAN; protocol-based VLAN; IP subnet-based VLAN,  Management VLAN  Private VLAN with promiscuous, isolated, and community port  Private VLAN Edge (PVE), also known as protected ports, with multiple uplinks  Guest VLAN; unauthenticated VLAN  Dynamic VLAN assignment via RADIUS server along with 802.1x client authentication  CPE VLAN		
Voice VLAN	Voice traffic is automatically assigned to a voice-specific VLAN and treated with appropriate levels of QoS  Auto voice capabilities deliver networkwide zero-touch deployment of voice endpoints and call control devices		
Multicast TV VLAN	Multicast TV VLAN allows the single multicast VLAN to be shared in the network while subscribers remain in separate VLANs. This feature is also known as Multicast VLAN Registration (MVR)		

Feature	Description
VLAN Translation	Support for VLAN One-to-One Mapping. In VLAN One-to-One Mapping, on an edge interface C-VLANs are mapped to S-VLANs and the original C-VLAN tags are replaced by the specified S-VLAN
Q-in-Q	VLANs transparently cross a service provider network while isolating traffic among customers
Selective Q-in-Q	Selective Q-in-Q is an enhancement to the basic Q-in-Q feature and provides, per edge interface, multiple mappings of different C-VLANs to separate S-VLANs  Selective Q-in-Q also allows configuring of Ethertype (TPID) of the S-VLAN tag  Layer 2 protocol tunneling over Q-in-Q is also supported
Generic VLAN Registration Protocol (GVRP)/Generic Attribute Registration Protocol (GARP)	Generic VLAN Registration Protocol (GVRP) and Generic Attribute Registration Protocol (GARP) enable automatic propagation and configuration of VLANs in a bridged domain
Unidirectional Link Detection (UDLD)	UDLD monitors physical connection to detect unidirectional links caused by incorrect wiring or cable/port faults to prevent forwarding loops and blackholing of traffic in switched networks
Dynamic Host Configuration Protocol (DHCP) Relay at Layer 2	Relay of DHCP traffic to DHCP server in different VLAN; works with DHCP Option 82
Internet Group Management Protocol (IGMP) versions 1, 2, and 3 snooping	IGMP limits bandwidth-intensive multicast traffic to only the requesters; supports 2K multicast groups (source-specific multicasting is also supported)
IGMP Querier	IGMP querier is used to support a Layer 2 multicast domain of snooping switches in the absence of a multicast router
Head-Of-Line (HOL) blocking	HOL blocking prevention
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
Layer 3	
IPv4 routing	Wirespeed routing of IPv4 packets  Up to 990 static routes and up to 128 IP interfaces
IPv6 routing	Wirespeed routing of IPv6 packets
Layer 3 Interface	Configuration of Layer 3 interface on physical port, LAG, VLAN interface, or loopback interface
Classless Interdomain Routing (CIDR)	Support for classless interdomain routing
Policy-Based Routing (PBR)	Flexible routing control to direct packets to different next hop based on IPv4 or IPv6 ACL

Feature	Description
DHCP Server	Switch functions as an IPv4 DHCP server serving IP addresses for multiple DHCP pools/scopes
	Support for DHCP options
DHCP relay at Layer 3	Relay of DHCP traffic across IP domains
User Datagram Protocol (UDP) relay	Relay of broadcast information across Layer 3 domains for application discovery or relaying of bootP/DHCP packets
Security	
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
IEEE 802.1X (Authenticator role)	802.1X: RADIUS authentication and accounting, MD5 hash; guest VLAN; unauthenticated VLAN, single/multiple host mode and single/multiple sessions Supports time-based 802.1X Dynamic VLAN assignment
Web-based authentication	Web based authentication provides network admission control through web browser to any host devices and operating systems
STP Bridge Protocol Data Unit (BPDU) Guard	A security mechanism to protect the network from invalid configurations. A port enabled for BPDU Guard is shut down if a BPDU message is received on that port
STP Root Guard	This prevents edge devices not in the network administrator's control from becoming Spanning Tree Protocol root nodes
STP loopback guard	Provides additional protection against Layer 2 forwarding loops (STP loops)
DHCP snooping	Filters out DHCP messages with unregistered IP addresses and/or from unexpected or untrusted interfaces. This prevents rogue devices from behaving as DHCP Servers
IP Source Guard (IPSG)	When IP Source Guard is enabled at a port, the switch filters out IP packets received from the port if the source IP addresses of the packets have not been statically configured or dynamically learned from DHCP snooping. This prevents IP Address Spoofing
Dynamic ARP Inspection (DAI)	The switch discards ARP packets from a port if there are no static or dynamic IP/MAC bindings or if there is a discrepancy between the source or destination addresses in the ARP packet. This prevents man-in-the-middle attacks
IP/MAC/Port Binding (IPMB)	The preceding features (DHCP Snooping, IP Source Guard, and Dynamic ARP Inspection) work together to prevent DOS attacks in the network, thereby increasing network availability
Secure Core Technology (SCT)	Makes sure that the switch will receive and process management and protocol traffic no matter how much traffic is received
Secure Sensitive Data (SSD)	A mechanism to manage sensitive data (such as passwords, keys, and so on) securely on the switch, populating this data to other devices, and secure autoconfig. Access to view the sensitive data as plaintext or encrypted is provided according to the user-configured access level and the access method of the user

Feature	Description	
Trustworthy systems	Trustworthy systems provide a highly secure foundation for Cisco products	
	Run-time defenses (Executable Space Protection [X-Space], Address Space Layout Randomization [ASLR], Built-In Object Size Checking [BOSC])	
Private VLAN	Private VLAN provides security and isolation between switch ports, which helps ensure that users cannot snoop on other users' traffic; supports multiple uplinks	
Layer 2 isolation Private VLAN Edge (PVE) with community VLAN	PVE (also known as protected ports) provides Layer 2 isolation between devices in the same VLAN, supports multiple uplinks	
Port security	Ability to lock source MAC addresses to ports and limits the number of learned MAC addresses	
RADIUS/TACACS+	Supports RADIUS and TACACS authentication. Switch functions as a client	
RADIUS accounting	The RADIUS accounting functions allow data to be sent at the start and end of services, indicating the amount of resources (such as time, packets, bytes, and so on) used during the session	
Storm control	Broadcast, multicast, and unknown unicast	
DoS prevention	Denial-Of-Service (DOS) attack prevention	
Multiple user privilege levels in CLI	Level 1, 7, and 15 privilege levels	
ACLs	Support for up to 1K rules	
	Drop or rate limit based on source and destination MAC, VLAN ID or IPv4 or IPv6 address, IPv6 flow label, 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; ACL can be applied on both ingress and egress sides	
	Time-based ACLs supported	
Quality of Service		
Priority levels	8 hardware queues	
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)/DSCP based; Differentiated Services (DiffServ); classification and remarking ACLs, trusted QoS	
	Queue assignment based on DSCP and class of service (802.1p/CoS)	
Rate limiting	Ingress policer; egress shaping and rate control; per VLAN, per port, and flow based; 2R3C policing	
Congestion avoidance	A TCP congestion avoidance algorithm is required to minimize and prevent global TCP loss synchronization	

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 Link Aggregation Control Protocol, 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 Rapid STP, IEEE 802.1s Multiple STP, IEEE 802.1X Port Access Authentication, IEEE 802.3af, IEEE 802.3at, IEEE 802.1AB Link Layer Discovery Protocol, IEEE 802.3az Energy Efficient Ethernet, RFC 768, RFC 783, RFC 791, RFC 792, RFC 793, RFC 813, RFC 826, RFC 879, RFC 896, RFC 854, RFC 855, RFC 856, RFC 858, RFC 894, RFC 919, RFC 920, RFC 922, RFC 950, RFC 951, RFC 1042, RFC 1071, RFC 1123, RFC 1141, RFC 1155, RFC 1157, RFC 1213, RFC 1215, RFC 1286, RFC 1350, RFC 1442, RFC 1451, RFC 1493, RFC 1533, RFC 1541, RFC 1542, RFC 1573, RFC 1624, RFC 1643, RFC 1700, RFC 1757, RFC 1867, RFC 1907, RFC 2011, RFC 2012, RFC 2013, RFC 2030, RFC 2131, RFC 2132, RFC 2233, RFC 2576, RFC 2616, RFC 2618, RFC 2665, RFC 2666, RFC 2674, RFC 2737, RFC 2819, RFC 2863, RFC 3164, RFC 3176, RFC 3411, RFC 3412, RFC 3413, RFC 3414, RFC 3415, RFC 3416, RFC 4330
IPv6	
IPv6	IPv6 host mode; IPv6 over Ethernet; Dual IPv6/IPv4 stack IPv6 neighbor and router discovery (ND); IPv6 stateless address autoconfiguration; Path Maximum Transmission Unit (MTU) discovery Duplicate Address Detection (DAD); ICMP version 6 DHCPv6 stateful client
	IPv6 over IPv4 network with Intrasite Automatic Tunnel Addressing Protocol (ISATAP) tunnel support USGv6 and IPv6 Gold Logo certified
IPv6 QoS	Prioritize IPv6 packets in hardware
IPv6 ACL	Drop or rate limit IPv6 packets in hardware
IPv6 First Hop Security	RA guard  ND inspection  DHCPv6 guard  Neighbor binding table (snooping and static entries)  Neighbor binding integrity check
Multicast Listener Discovery (MLD v1/2) snooping	Deliver IPv6 multicast packets only to the required receivers
IPv6 applications	Web/SSL, Telnet server/SSH, ping, traceroute, Simple Network Time Protocol (SNTP), Trivial File Transfer Protocol (TFTP), SNMP, RADIUS, syslog, DNS client, Telnet Client, DHCP Client, DHCP Autoconfig, IPv6 DHCP Relay, TACACS+
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

Feature	Description		
	RFC 4862 (which obsoletes RFC 2462): IPv6 stateless address autoconfiguration		
	RFC 1981: path MTU discovery		
	RFC 4007: IPv6 scoped address architecture		
	RFC 3484: default address selection mechan	ism	
	RFC 5214 (which obsoletes RFC 4214): ISAT	AP tunneling	
	RFC 4293: MIB IPv6: textual conventions and	general group	
	RFC 3595: textual conventions for IPv6 flow I	abel	
Management			
Web user interface	Built-in switch configuration utility for easy be (HTTP/HTTPS)	rowser-based device configuration	
	Supports simple and advanced mode, config system maintenance, monitoring, online help		
Smart Network Application	Smart Network Application (SNA) is an innovative network-level monitoring and management tool embedded in Cisco 100 to 500 Series switches. It can discover network topology, display link status, monitor events, apply configurations, and upgrade software images across multiple switches in the network		
	(Note: Management of your network using Sr either a 350, 350X, or 550X Series switch mo		
SNMP	SNMP versions 1, 2c, and 3 with support for Security Model (USM)	traps, and SNMP version 3 User-based	
Standard MIBs	IIdp-MIB	rfc2668-MIB	
	Ildpextdot1-MIB	rfc2737-MIB	
	Ildpextdot3-MIB	rfc2925-MIB	
	Ildpextmed-MIB	rfc3621-MIB	
	rfc2674-MIB	rfc4668-MIB	
	rfc2575-MIB	rfc4670-MIB	
	rfc2573-MIB	trunk-MIB	
	rfc2233-MIB	tunnel-MIB	
	rfc2013-MIB	udp-MIB	
	rfc2012-MIB	draft-ietf-bridge-8021x-MIB	
	rfc2011-MIB	draft-ietf-bridge-rstpmib-04-MIB	
	RFC-1212	draft-ietf-hubmib-etherif-mib-v3-00-MIB	
	RFC-1215	draft-ietf-syslog-device-MIB	
	SNMPv2-CONF	ianaaddrfamnumbers-MIB	
	SNMPv2-TC	ianaifty-MIB	
	p-bridge-MIB	ianaprot-MIB	
	q-bridge-MIB	inet-address-MIB	
	rfc1389-MIB	ip-forward-MIB	
	rfc1493-MIB	ip-MIB	

Feature	Description		
	rfc1611-MIB	RFC1155-SMI	
	rfc1612-MIB	RFC1213-MIB	
	rfc1850-MIB	SNMPv2-MIB	
	rfc1907-MIB	SNMPv2-SMI	
	rfc2571-MIB	SNMPv2-TM	
	rfc2572-MIB	RMON-MIB	
	rfc2574-MIB	rfc1724-MIB	
	rfc2576-MIB	dcb-raj-DCBX-MIB-1108-MIB	
	rfc2613-MIB	rfc1213-MIB	
	rfc2665-MIB	rfc1757-MIB	
Private MIBs	CISCOSB-IIdp-MIB CISCOSB-	CISCOSB-ip-MIB	
	brgmulticast-MIB CISCOSB-	CISCOSB-iprouter-MIB	
	bridgemibobjects-MIB	CISCOSB-ipv6-MIB	
	CISCOSB-bonjour-MIB	CISCOSB-mnginf-MIB	
	CISCOSB-dhcpcI-MIB	CISCOSB-Icli-MIB	
	CISCOSB-MIB	CISCOSB-localization-MIB	
	CISCOSB-wrandomtaildrop-MIB	CISCOSB-mcmngr-MIB	
	CISCOSB-traceroute-MIB	CISCOSB-mng-MIB	
	CISCOSB-telnet-MIB	CISCOSB-physdescription-MIB	
	CISCOSB-stormctrl-MIB	CISCOSB-Poe-MIB	
	CISCOSB-ssh-MIB	CISCOSB-protectedport-MIB	
	CISCOSB-socket-MIB	CISCOSB-rmon-MIB	
	CISCOSB-sntp-MIB	CISCOSB-rs232-MIB	
	CISCOSB-smon-MIB	CISCOSB-SecuritySuite-MIB	
	CISCOSB-phy-MIB	CISCOSB-snmp-MIB	
	CISCOSB-multisessionterminal-MIB	CISCOSB-specialbpdu-MIB	
	CISCOSB-mri-MIB	CISCOSB-banner-MIB	
	CISCOSB-jumboframes-MIB	CISCOSB-syslog-MIB	
	CISCOSB-gvrp-MIB	CISCOSB-TcpSession-MIB	
	CISCOSB-endofmib-MIB	CISCOSB-traps-MIB	
	CISCOSB-dot1x-MIB	CISCOSB-trunk-MIB	
	CISCOSB-deviceparams-MIB	CISCOSB-tuning-MIB	
	CISCOSB-cli-MIB	CISCOSB-tunnel-MIB	
	CISCOSB-cdb-MIB	CISCOSB-udp-MIB	
	CISCOSB-brgmacswitch-MIB	CISCOSB-vlan-MIB	
	CISCOSB-3sw2swtables-MIB	CISCOSB-ipstdacl-MIB	
	CISCOSB-smartPorts-MIB	CISCOSB-eee-MIB	

Factoria	Description		
Feature	Description		
	CISCOSB-tbi-MIB	CISCOSB-ssI-MIB	
	CISCOSB-macbaseprio-MIB	CISCOSB-qosclimib-MIB	
	CISCOSB-policy-MIB	CISCOSB-digitalkeymanage-MIB	
	CISCOSB-env_mib	CISCOSB-tbp-MIB	
	CISCOSB-sensor-MIB	CISCOSMB-MIB	
	CISCOSB-aaa-MIB	CISCOSB-secsd-MIB	
	CISCOSB-application-MIB	CISCOSB-draft-ietf-entmib-sensor-MIB	
	CISCOSB-bridgesecurity-MIB	CISCOSB-draft-ietf-syslog-device-MIB	
	CISCOSB-copy-MIB	CISCOSB-rfc2925-MIB	
	CISCOSB-CpuCounters-MIB	CISCO-SMI-MIB	
	CISCOSB-Custom1BonjourService-MIB	CISCOSB-DebugCapabilities-MIB	
	CISCOSB-dhcp-MIB	CISCOSB-CDP-MIB	
	CISCOSB-dlf-MIB	CISCOSB-vlanVoice-MIB	
	CISCOSB-dnscl-MIB	CISCOSB-EVENTS-MIB	
	CISCOSB-embweb-MIB	CISCOSB-sysmng-MIB	
	CISCOSB-fft-MIB	CISCOSB-sct-MIB	
	CISCOSB-file-MIB	CISCO-TC-MIB	
	CISCOSB-greeneth-MIB	CISCO-VTP-MIB	
	CISCOSB-interfaces-MIB	CISCO-CDP-MIB	
	CISCOSB-interfaces_recovery-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		
Firmware upgrade	Web browser upgrade (HTTP/HTTPS) and TFTP and upgrade over SCP running over SSH		
	Upgrade can be initiated through console port a	as well	
	Dual images for resilient firmware upgrades		
Port mirroring	Traffic on a port 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. A single session is supported		
VLAN mirroring	Traffic from a VLAN can be mirrored to a port for analysis with a network analyzer or RMON probe. Up to 8 source VLANs can be mirrored to one destination port. A single session is supported		
DHCP (options 12, 66, 67, 82, 129, and 150)	DHCP options facilitate tighter control from a central point (DHCP server) to obtain IP address, autoconfiguration (with configuration file download), DHCP relay, and hostname		
Secure Copy (SCP)	Securely transfer files to and from the switch		
Autoconfiguration with Secure Copy (SCP) file download	Enables secure mass deployment with protection of sensitive data		

Feature	Description	
Text-editable config files	Config files can be edited with a text editor and downloaded to another switch, facilitating easier mass deployment	
Smartports	Simplified configuration of QoS and security capabilities	
Auto Smartports	Applies the intelligence delivered through the Smartport roles and applies it automatically to the port based on the devices discovered over Cisco Discovery Protocol or LLDP-MED. This facilitates zero-touch deployments	
Textview CLI	Scriptable command-line interface. A full CLI as well as a menu-based CLI is supported. User privilege levels 1, 7, and 15 are supported for the CLI	
Cloud services	Support for Cisco FindIT Network Manager and Cisco Active Advisor	
Embedded Probe for FindIT Network Manager	Support for embedded FindIT Network Probe running on the switch. Eliminates the need to set up a separate hardware or virtual machine for the FindIT Network Probe on site	
Cisco Network Plug and Play (PnP) agent	The Cisco Network Plug and Play solution provides a simple, secure, unified, and integrated offering to ease new branch or campus device rollouts or for provisioning updates to an existing network. The solution provides a unified approach to provision Cisco routers, switches, and wireless devices with a near-zero-touch deployment experience	
	Supports Cisco PnP Connect	
Localization	Localization of GUI and documentation into multiple languages	
Login banner	Configurable multiple banners for web as well as CLI	
Other management	Traceroute; single IP management; HTTP/HTTPS; SSH; RADIUS; port mirroring; TFTP upgrade; DHCP client; BOOTP; SNTP; Xmodem upgrade; cable diagnostics; ping; syslog; Telnet client (SSH secure support); automatic time settings from Management Station	
Time-based port operation	Link up or down based on user-defined schedule (when the port is administratively up)	
Time-based PoE	Capability for power to be on or off based on a user-defined schedule to save energy	
Power Efficiency		
Energy Detect	Automatically turns power off on Gigabit Ethernet and 10/100 RJ-45 port when detecting link down. Active mode is resumed without loss of any packets when the switch detects the link up	
Cable length detection	Adjusts the signal strength based on the cable length for Gigabit Ethernet models. Reduces the power consumption for shorter cables	
EEE Compliant (802.3az)	Supports IEEE 802.3az on all copper Gigabit Ethernet ports	
Disable port LEDs	LEDs can be manually turned off to save on energy	
Time-based port operation	Link up or down based on user-defined schedule (when the port is administratively up)	
Time-based PoE	Capability for power to be on or off based on a user-defined schedule to save energy	

Feature	Description		
General Control of the Control of th			
Jumbo frames	Frame sizes up to 9K bytes. The default MTU is 2K bytes		
MAC table	16K addresses		
Discovery			
Bonjour	The switch advertises itself	using the Bonjour protocol	
Link Layer Discovery Protocol (LLDP) (802.1ab) with LLDP-MED extensions		ore the data in a MIB. LLDP-	onfiguration, and capabilities to MED is an enhancement to LLDP
Cisco Discovery Protocol	The switch advertises itself connected device and its c	using the Cisco Discovery F haracteristics via Cisco Disc	Protocol. It also learns the overy Protocol
Power over Ethernet (PoE)			
802.3af PoE, 802.3at PoE+, or 60W PoE are delivered over the RJ-45 ports within the listed power budgets	(legacy) Poe of any of the RJ45 network ports, 60W Poe is also supported on selecte.		
	·	or PoE per switch is as follow	
	Model Name	Power Dedicated to PoE	Number of Ports That Support PoE
	SF352-08P	62W	8
	SF352-08MP	128W	8
	SF350-24P	185W	24 (4 support 60W PoE)
	SF350-24MP	375W	24 (4 support 60W PoE)
	SF350-48P	382W	48 (8 support 60W PoE)
	SF350-48MP	740W	48 (8 support 60W PoE)
	SG350-8PD	124W	8
	SG350-10P	62W	8
	SG355-10P	62W	8
	SG350-10MP	124W	8
	SG350-28P	195W	24 (4 support 60W PoE)
	SG350-28MP	382W	24 (4 support 60W PoE)
	SG350-52P	375W	48 (8 support 60W PoE)
	SG350-52MP	740W	48 (8 support 60W PoE)

## Feature Description

## PoE powered device and PoE passthrough

In addition to AC power, compact switch models can work as PoE powered devices and be powered by PoE switches connected to the uplink ports. The switch can also pass through the power to downstream PoE end devices if required

Maximum of 60W can be drawn per uplink port if the peer PoE switch supports 60W PoE. When multiple uplink ports are connected to PoE switches, the power drawn from these ports is combined

When AC power is connected and functioning properly, it will have priority over the PoE powered device function. The PoE powered device function will then act as a backup power source to the AC power. The PoE powered device function will be the primary power source for the switch if AC power is not connected

Model	Power Option	Available PoE Power (W)	Can Switch Be Powered with Uplinks?
SG350-10P	1 PoE uplink	OW	Yes
	2 PoE uplink	OW	Yes
	1 PoE+ uplink	OW	Yes
	2 PoE+ uplink	22W	Yes
	1 60W PoE uplink	22W	Yes
	2 60W PoE uplink	50W	Yes
	AC power	62W	Yes
SG350-10MP	1 PoE uplink	OW	Yes
	2 PoE uplink	OW	Yes
	1 PoE+ uplink	OW	Yes
	2 PoE+ uplink	22W	Yes
	1 60W PoE uplink	22W	Yes
	2 60W PoE uplink	50W	Yes
	AC power	128W	Yes
SG355-10P	1 PoE uplink	OW	Yes
	2 PoE uplink	OW	Yes
	1 PoE+ uplink	OW	Yes
	2 PoE+ uplink	22W	Yes

Feature	Description					
		1 60W PoE uplink	22W		Yes	
		2 60W PoE uplink	50W		Yes	
		AC power	62W		Yes	
Power consumption (worst case)	Model	Green Power (mode)	System Power Consumption	Powe Consu	ımption	Heat Dissipation (BTU/hr)
	SF350-08	Energy Detect	110V=5.6W 220V=5.8W	N/A		30.0
	SF352-08	Energy Detect	110V=6.9W 220V=6.9W	N/A		23.5
	SF352-08P	Energy Detect	110V=10.4W 220V=11.2W		78.7W 79.3W	207.4
	SF352-08MP	Energy Detect	110V=10.4W 220V=11.2W		:157.2W :156.2W	536.1
	SF350-24	Energy Detect	110V=10.6W 220V=10.9W		:240W :230W	43.3
	SF350-24P	Energy Detect	110V=10.6W 220V=10.9W		:240W :230W	684.1
	SF350-24MP	Energy Detect	110V=29.2W 220V=28.3W		:238W :233W	1333.0
	SF350-48	Energy Detect	110V=23.4W 220V=24.2W	N/A		82.6
	SF350-48P	Energy Detect	110V=50.8W 220V=52.1W		:464.3W :453.1W	1584.3
	SF350-48MP	Energy Detect	110V=58.4W 220V=58.5W		:866.7W :843.5W	2957.3
	SG350-8PD	EEE, Energy Detect, Short Reach	110V=29.8W 220V=31.3W		:167W :165.2W	569.5
	SG350-10	EEE, Energy Detect, Short Reach	110V=9.0W 220V=9.8W	N/A		33.4
	SG350-10P	EEE, Energy Detect, Short Reach	110V=13.0W 220V=13.5W		:84.7W :83.5W	289.0

Feature	Description						
	SG355-10P	, Energy ect, Short ach	110V=12 220V=12		110V=83. 220V=83.		284.8
	SG350-10MP	, Energy ect, Short ach	110V=13 220V=13		110V=152 220V=151		521.5
	SG350-10SFP	, Energy ect, Short ach	110V=11 220V=11		N/A		40.6
	SG350-20	, Energy ect, Short ach	110V=12 220V=15		N/A		51.8
	SG350-28	, Energy ect, Short ach	110V=19 220V=19		N/A		67.9
	SG350-28P	, Energy ect, Short ich	110V=35 220V=36		110V=263 220V=255		897.4
	SG350-28MP	, Energy ect, Short ach	110V=42 220V=42		110V=261 220V=451		1573.3
	SG350-28SFP	, Energy ect, Short ach	110V=32 220V=34		N/A		117.0
	SG350-52	, Energy ect, Short ach	110V=40 220V=40		N/A		136.4
	SG350-52P	, Energy ect, Short ach	110V=62 220V=61		110V=440 220V=431		1429.4
	SG350-52MP	, Energy ect, Short ich	110V=72 220V=73		110V=858 220V=833		2674.8
Ports	Model Name	Total System	Ports	RJ-45 Ports	s		oo Ports 5 + SFP)
	SF350-08	8 Fast Ethern	et	8 Fast Ether	rnet	N/A	
	SF352-08	8 Fast Ethern Gigabit Ethern		8 Fast Ether	net	2 Giga comb	abit Ethernet o
	SF352-08P	8 Fast Ethern Gigabit Ethern		8 Fast Ether	rnet	2 Giga comb	abit Ethernet o
	SF352-08MP	8 Fast Ethern Gigabit Ethern		8 Fast Ether	net	2 Giga comb	abit Ethernet o

Feature	Description			
	SF350-24	24 Fast Ethernet + 4 Gigabit Ethernet	24 Fast Ethernet	2 Gigabit Ethernet combo + 2 SFP
	SF350-24P	24 Fast Ethernet + 4 Gigabit Ethernet	24 Fast Ethernet	2 Gigabit Ethernet combo + 2 SFP
	SF350-24MP	24 Fast Ethernet + 4 Gigabit Ethernet	24 Fast Ethernet	2 Gigabit Ethernet combo + 2 SFP
	SF350-48	48 Fast Ethernet + 4 Gigabit Ethernet	48 Fast Ethernet 2 Gigabit Ethernet	2 Gigabit Ethernet combo + 2 SFP
	SF350-48P	48 Fast Ethernet + 4 Gigabit Ethernet	48 Fast Ethernet 2 Gigabit Ethernet	2 Gigabit Ethernet combo + 2 SFP
	SF350-48MP	48 Fast Ethernet + 4 Gigabit Ethernet	48 Fast Ethernet 2 Gigabit Ethernet	2 Gigabit Ethernet combo + 2 SFP
	SG350-8PD	6 Gigabit Ethernet + 2 2.5G + 2 Multigigabit	6 Gigabit Ethernet + 2 2.5G	2 Multigigabit/SFP+ combo
	SG350-10	10 Gigabit Ethernet	8 Gigabit Ethernet	2 Gigabit Ethernet combo
	SG350-10P	10 Gigabit Ethernet	8 Gigabit Ethernet	2 Gigabit Ethernet combo
	SG355-10P	10 Gigabit Ethernet	8 Gigabit Ethernet	2 Gigabit Ethernet combo
	SG350-10MP	10 Gigabit Ethernet	8 Gigabit Ethernet	2 Gigabit Ethernet combo
	SG350-10SFP	10 Gigabit Ethernet	8 Gigabit SFP Slots	2 Gigabit Ethernet combo
	SG350-20	20 Gigabit Ethernet	16 Gigabit Ethernet	2 Gigabit Ethernet combo + 2 SFP
	SG350-28	28 Gigabit Ethernet	24 Gigabit Ethernet	2 Gigabit Ethernet combo + 2 SFP
	SG350-28P	28 Gigabit Ethernet	24 Gigabit Ethernet	2 Gigabit Ethernet combo + 2 SFP
	SG350-28MP	28 Gigabit Ethernet	24 Gigabit Ethernet	2 Gigabit Ethernet combo + 2 SFP
	SG350-28SFP	28 Gigabit Ethernet	24 Gigabit SFP slots	2 Gigabit Ethernet combo + 2 SFP
	SG350-52	52 Gigabit Ethernet	48 Gigabit Ethernet	2 Gigabit Ethernet combo + 2 SFP

Feature	Description				
	SG350-52P	52 Gigabit Ethernet	48 Gigabit Ethernet	2 Gigabit Ethernet combo + 2 SFP	
	SG350-52MP	52 Gigabit Ethernet	48 Gigabit Ethernet	2 Gigabit Ethernet combo + 2 SFP	
Console port	Cisco Standard RJ4	5 console port			
USB slot	USB Type-A slot on	the front panel of the s	witch for easy file and i	mage management	
Buttons	Reset button				
Cabling type	Unshielded Twisted Category 5e or bette	Pair (UTP) Category 5 of the for 1000BASE-T	or better for 10BASE-T	/100BASE-TX; UTP	
LEDs	System, Link/Act, Po	oE, Speed			
Flash	256 MB				
CPU	800 MHz ARM				
CPU memory	512 MB				
Packet buffer	All numbers are agg	regate across all ports	as the buffers are dyna	mically shared:	
	Model Name		Packet Buffer		
	SF350-08		1.5 MB		
	SF352-08		1.5 MB		
	SF352-08P		1.5 MB		
	SF352-08MP		1.5 MB		
	SF350-24		1.5 MB		
	SF350-24P		1.5 MB		
	SF350-24MP		1.5 MB		
	SF350-48		3 MB		
	SF350-48P		3 MB		
	SF350-48MP SG350-8PD		3 MB		
			1.5 MB		
	SG350-10		1.5 MB		
	SG350-10P		1.5 MB		
	SG355-10P		1.5 MB		

Feature	Description				
	SG350-10MP		1.5 MB		
	SG350-10SFP	SG350-10SFP		1.5 MB	
	SG350-20		1.5 MB		
	SG350-28		1.5 MB		
	SG350-28P		1.5 MB		
	SG350-28MP		1.5 MB		
	SG350-28SFP		1.5 MB		
	SG350-52		3 MB		
	SG350-52P		3 MB		
	SG350-52MP		3 MB		
Supported SFP modules	SKU	Media	Speed	Maximum Distance	
	MGBSX1	Multimode fiber	1000 Mbps	500 m	
	MGBLX1	Single-mode fiber	1000 Mbps	10 km	
	MGBLH1	Single-mode fiber	1000 Mbps	40 km	
	MGBT1	UTP cat 5e	1000 Mbps	100 m	
	GLC-LH-SMD	Single-mode fiber	1000 Mbps	10 km	
	GLC-BX-U	Single-mode fiber	1000 Mbps	10 km	
Environmental					
Unit dimensions (W x H x D)	Model Name		<b>Unit Dimensions</b>		
	SF350-08		279.4 x 44 x 170 mm	(11.0 x 1.73 x 6.69 in)	
	SF352-08		279.4 x 44 x 170 mm (11.0 x 1.73 x 6.69 in)		
			279.4 x 44 x 170 mm (11.0 x 1.73 x 6.69 in)		
			279.4 x 44 x 170 mm (11.0 x 1.73 x 6.69 in)		
	SF350-24		440 x 44 x 202 mm (17.3 x 1.73 x 7.95 in)		
	SF350-24P		440 x 44 x 257 mm (17.3 x 1.73 x 10.12 in)		
	SF350-24MP		440 x 44 x 257 mm (1	7.3 x 1.73 x 10.12 in)	
	SF350-48		440 x 44 x 257 mm (1	7.3 x 1.73 x 10.12 in)	

Feature	Description	
	SF350-48P	440 x 44 x 350 mm (17.3 x 1.73 x 13.78 in)
	SF350-48MP	440 x 44 x 350 mm (17.3 x 1.73 x 13.78 in)
	SG350-8PD	344.4 x 44 x 252.5 (13.6 x 1.73 x 9.94 in)
	SG350-10	280 x 44 x 170 mm (11.0 x 1.73 x 6.69 in)
	SG350-10P	280 x 44 x 170 mm (11.0 x 1.73 x 6.69 in)
	SG355-10P	440 x 44 x 203 mm (17.3 x 1.73 x 7.99 in)
	SG350-10MP	280 x 44 x 170 mm (11.0 x 1.73 x 6.69 in)
	SG350-10SFP	279.4 x 44 x 170 mm (11.0 x 1.73 x 6.69 in)
	SG350-20	440 x 44 x 203 mm (17.3 x 1.73 x 7.99 in)
	SG350-28	440 x 44 x 202 mm (17.3 x 1.73 x 7.95 in)
	SG350-28P	440 x 44 x 257 mm (17.3 x 1.73 x 10.12 in)
	SG350-28MP	440 x 44 x 257 mm (17.3 x 1.73 x 10.12 in)
	SG350-28SFP	440 x 44 x 203 mm (17.3 x 1.73 x 7.99 in)
	SG350-52	440 x 44 x 257 mm (17.3 x 1.73 x 10.12 in)
	SG350-52P	440 x 44 x 350 mm (17.3 x 1.73 x 13.78 in)
	SG350-52MP	440 x 44 x 350 mm (17.3 x 1.73 x 13.78 in)
Unit weight	Model Name	Unit Weight
	SF350-08	1.18 kg (2.60 lb)
	SF352-08	1.06 kg (2.34 lb)
	SF352-08P	1.16 kg (2.56 lb)
	SF352-08MP	1.16 kg (2.56 lb)
	SF350-24	2.72 kg (6.0 lb)
	SF350-24P	4.08 kg (8.99 lb)
	SF350-24MP	4.12 kg (9.08 lb)
	SF350-48	3.58 kg (7.89 lb)
	SF350-48P	5.59 kg (12.32 lb)
	SF350-48MP	5.61 kg (12.37 lb)

Feature	Description		
	SG350-8PD	2.5 kg (5.51 lb)	
	SG350-10	1.09 kg (2.40 lb)	
	SG350-10P	1.19 kg (2.62 lb)	
	SG355-10P	2.36 kg (5.20 lb)	
	SG350-10MP	1.19 kg (2.62 lb)	
	SG350-10SFP	2.08 kg (4.59 lb)	
	SG350-20	2.12 kg (4.67 lb)	
	SG350-28	2.75 kg (6.06 lb)	
	SG350-28P	3.83 kg (8.44 lb)	
	SG350-28MP	3.37 kg (7.43 lb)	
	SG350-28SFP	2.7 kg (5.95 lb)	
	SG350-52	2.75 kg (6.06 lb)	
	SG350-52P	3.81 kg (8.40 lb)	
	SG350-52MP	3.83 kg (8.44 lb)	
Power		350-24, SF350-24P, SF350-24MP, SF350-48, 355-10P, SG350-20, SG350-28, SG350-28P, SG350-52P, SG350-52MP	
	100-240V 50-60 Hz, external: SF350-08, S 10, SG350-10P, SG350-10MP, SG350-10S	F352-08, SF352-08P, SF352-08MP, SG350- SFP	
Certification	UL (UL 60950), CSA (CSA 22.2), CE mark, F	FCC Part 15 (CFR 47) Class A	
Operating temperature	32° to 122°F (0° to 50°C):  SF350-08, SF352-08, SF352-08P, SF352-08MP, SF350-24, SF350-24P, SF350-24MP, SF350-48, SF350-48P, SF350-48MP, SG350-10, SG350-10P, SG355-10P, SG350-10MP, SG350-10SFP, SG350-20, SG350-28, SG350-28P, SG350-28MP, SG350-28SFP, SG350-52, SG350-52P, SG350-52MP  32° to 113°F (0° to 45°C):  SG350-08PD		
Storage temperature	-4° to 158°F (-20° to 70°C)		
Operating humidity	10% to 90%, relative, noncondensing		
Storage humidity	10% to 90%, relative, noncondensing		

Feature	Description			
Acoustic noise and MTBF	Model Name	FAN (Number)	Acoustic Noise	MTBF @40C (hr)
	SF350-08	Fanless	N/A	644,573
	SF352-08	Fanless	N/A	532,704
	SF352-08P	Fanless	N/A	530,716
	SF352-08MP	Fanless	N/A	478,335
	SF350-24	Fanless	N/A	562,313
	SF350-24P	2	0° C - 25° C: 39.7dB 50° C: 52.2dB	293,029
	SF350-24MP	2	0° C - 25° C: 39.7dB 50° C: 52.2dB	272,127
	SF350-48	Fanless	N/A	277,653
	SF350-48P	3	0° C - 25° C: 42.5dB 50° C: 55.0dB	182,270
	SF350-48MP	4	0° C - 25° C: 42.0dB 50° C: 54.1dB	191,951
	SG350-8PD	Fanless	N/A	562,664
	SG350-10	Fanless	N/A	308,196
	SG350-10P	Fanless	N/A	205,647
	SG355-10P	Fanless	N/A	296,426
	SG350-10MP	Fanless	N/A	80,093
	SG350-10SFP	Fanless	N/A	851,827
	SG350-20	Fanless	N/A	1,400,007
	SG350-28	Fanless	N/A	367,209
	SG350-28P	2	0° C - 25° C: 37.2dB 50° C: 53.7dB	396,687
	SG350-28MP	2	0° C - 25° C: 37.2dB 50° C: 51.8dB	213,373
	SG350-28SFP	1	0°C - 30°C: 40.3dB 50°C: 43.6dB	101,523

Feature	Description			
	SG350-52	1	0°C - 25°C: 36.6dB 50°C: 52.6dB	301,297
	SG350-52P	3	0°C - 25°C: 41.2dB 50°C: 54.2dB	195,746
	SG350-52MP	4	0°C - 25°C: 43.7dB 50°C: 55.5dB	163,704
Warranty	Limited lifetime	Limited lifetime with next business day advance replacement (where available)		

#### **Package Contents**

- Cisco 350 Series Managed Switch
- Power Cord (Power Adapter for select SKUs)
- Mounting Kit
- Console Cable
- Quick Start Guide

#### **Minimum Requirements**

- Web browser: Chrome, Firefox, Edge, Safari
- Category 5 Ethernet network cable
- TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, or Mac OS X) installed on each computer in the network

## Ordering information

Table 2 provides ordering information for the Cisco 350 Series Switches. Table 3 gives region- and country-specific information, and Table 4 provides MGE transceiver ordering information.

 Table 2.
 Cisco 350 Series Switches ordering information

Model Name	Order Product ID Number	Description
Fast Ethernet		
SF350-08	SF350-08-K9-xx	• 8 10/100 ports
SF352-08	SF352-08-K9-xx	<ul><li> 8 10/100 ports</li><li> 2 Gigabit copper/SFP combo</li></ul>
SF352-08P	SF352-08P-K9-xx	<ul><li>8 10/100 PoE+ ports</li><li>2 Gigabit copper/SFP combo</li><li>62W PoE power budget</li></ul>
SF352-08MP	SF352-08MP-K9-xx	<ul><li>8 10/100 PoE+ ports</li><li>2 Gigabit copper/SFP combo</li><li>128W PoE power budget</li></ul>

Model Name	Order Product ID Number	Description
SF350-24	SF350-24-K9-xx	<ul><li>24 10/100 ports</li><li>2 Gigabit copper/SFP combo + 2 SFP ports</li></ul>
SF350-24P	SF350-24P-K9-xx	<ul> <li>24 10/100 PoE+ ports (4 support 60W PoE)</li> <li>2 Gigabit copper/SFP combo + 2 SFP ports</li> <li>185W PoE power budget</li> </ul>
SF350-24MP	SF350-24MP-K9-xx	<ul> <li>24 10/100 PoE+ ports (4 support 60W PoE)</li> <li>2 Gigabit copper/SFP combo + 2 SFP ports</li> <li>375W PoE power budget</li> </ul>
SF350-48	SF350-48-K9-xx	<ul><li>48 10/100 ports</li><li>2 Gigabit copper/SFP combo + 2 SFP ports</li></ul>
SF350-48P	SF350-48P-K9-xx	<ul> <li>48 10/100 PoE+ ports (8 support 60W PoE)</li> <li>2 Gigabit copper/SFP combo + 2 SFP ports</li> <li>382W PoE power budget</li> </ul>
SF350-48MP	SF350-48MP-K9-xx	<ul> <li>48 10/100 PoE+ ports (8 support 60W PoE)</li> <li>2 Gigabit copper/SFP combo + 2 SFP ports</li> <li>740W PoE power budget</li> </ul>
Gigabit Ethernet		
SG350-10	SG350-10-K9-xx	<ul><li> 8 10/100/1000 ports</li><li> 2 Gigabit copper/SFP combo</li></ul>
SG350-10P	SG350-10P-K9-xx	<ul><li>8 10/100/1000 PoE+ ports</li><li>2 Gigabit copper/SFP combo</li><li>62W PoE power budget</li></ul>
SG355-10P	SG355-10P-K9-xx	<ul><li>8 10/100/1000 PoE+ ports</li><li>2 Gigabit copper/SFP combo</li><li>62W PoE power budget</li></ul>
SG350-10MP	SG350-10MP-K9-xx	<ul><li>8 10/100/1000 PoE+ ports</li><li>2 Gigabit copper/SFP combo</li><li>124W PoE power budget</li></ul>
SG350-10SFP	SG350-10SFP-K9-xx	<ul><li> 8 SFP Gigabit slots</li><li> 2 Gigabit copper/SFP combo</li></ul>
SG350-20	SG350-20-K9-xx	<ul><li>16 10/100/1000 ports</li><li>2 Gigabit copper/SFP combo + 2 SFP ports</li></ul>
SG350-28	SG350-28-K9-xx	<ul><li>24 10/100/1000 ports</li><li>2 Gigabit copper/SFP combo + 2 SFP ports</li></ul>
SG350-28P	SG350-28P-K9-xx	<ul> <li>24 10/100/1000 PoE+ ports (4 support 60W PoE)</li> <li>2 Gigabit copper/SFP combo + 2 SFP ports</li> <li>195W PoE power budget</li> </ul>
SG350-28MP	SG350-28MP-K9-xx	<ul> <li>24 10/100/1000 PoE+ ports (4 support 60W PoE)</li> <li>2 Gigabit copper/SFP combo + 2 SFP ports</li> <li>382W PoE power budget</li> </ul>

Model Name	Order Product ID Number	Description
SG350-28SFP	SG350-28SFP-K9-xx	<ul><li>24 SFP Gigabit slots</li><li>2 Gigabit copper/SFP combo + 2 SFP ports</li></ul>
SG350-52	SG350-52-K9-xx	<ul><li>48 10/100/1000 ports</li><li>2 Gigabit copper/SFP combo + 2 SFP ports</li></ul>
SG350-52P	SG350-52P-K9-xx	<ul> <li>48 10/100/1000 PoE+ ports (8 support 60W PoE)</li> <li>2 Gigabit copper/SFP combo + 2 SFP ports</li> <li>375W PoE power budget</li> </ul>
SG350-52MP	SG350-52MP-K9-xx	<ul> <li>48 10/100/1000 PoE+ ports (8 support 60W PoE)</li> <li>2 Gigabit copper/SFP combo + 2 SFP ports</li> <li>740W PoE power budget</li> </ul>
Multi-Gigabit Ethernet		
SG350-8PD	SG350-8PD-K9-xx	<ul> <li>6 10/100/1000 PoE+ ports</li> <li>2 2.5G PoE+ ports</li> <li>2 Multigigabit/SFP+ combo</li> <li>124W PoE power budget</li> </ul>

<sup>\*</sup> Each combo port has one 10/100/1000 Ethernet port and one SFP Gigabit Ethernet slot, with one port active at a time.

The -xx in the Product Order ID Number is a country-/region-specific suffix. For example, the complete PID of SG350-28P for the United States is SG350-28P-K9-NA. Please refer to Table 3 for the correct suffix to use for your country/region.

Table 3. Country/region suffix for product order ID number

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

The products may also be available in a country/region not listed in Table 3. Not all product models are offered in all countries/regions. For Korea, either -EU or -KR suffix will be used depending on product models. Please consult with your local Cisco sales representative or Cisco partners for more details.

**Table 4.** MGE transceiver ordering information

MGE Transceivers	
MGBSX1	1000BASE-SX SFP transceiver, for multimode fiber, 850 nm wavelength, support up to 500 m
MGBLX1	1000BASE-LX SFP transceiver for single-mode fiber, 1310 nm wavelength, supports up to 10 km
MGBLH1	1000BASE-LH SFP transceiver, for single-mode fiber, 1310 nm wavelength, support up to 40 km
MGBT1	1000BASE-T SFP transceiver for Category 5 copper wire, supports up to 100 m

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#### For more information

To find out more about the Cisco 350 Series, visit <a href="https://www.cisco.com/go/350switches">https://www.cisco.com/go/350switches</a>.

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