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Cisco Business 350 Series Managed Switches



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Critical Building Block for Any Small Office Network

From connectivity to cloud applications, networking plays a crucial role in every business journey. Reliability, security, and affordability continue to be top of mind while ongoing management and operations add additional complexity that take time and resources.

Cisco Business is a portfolio of affordable wireless access points, switches and routers designed and built for Small Business. Managed through Cisco Business Dashboard and mobile app, the portfolio provides a simple and reliable experience.

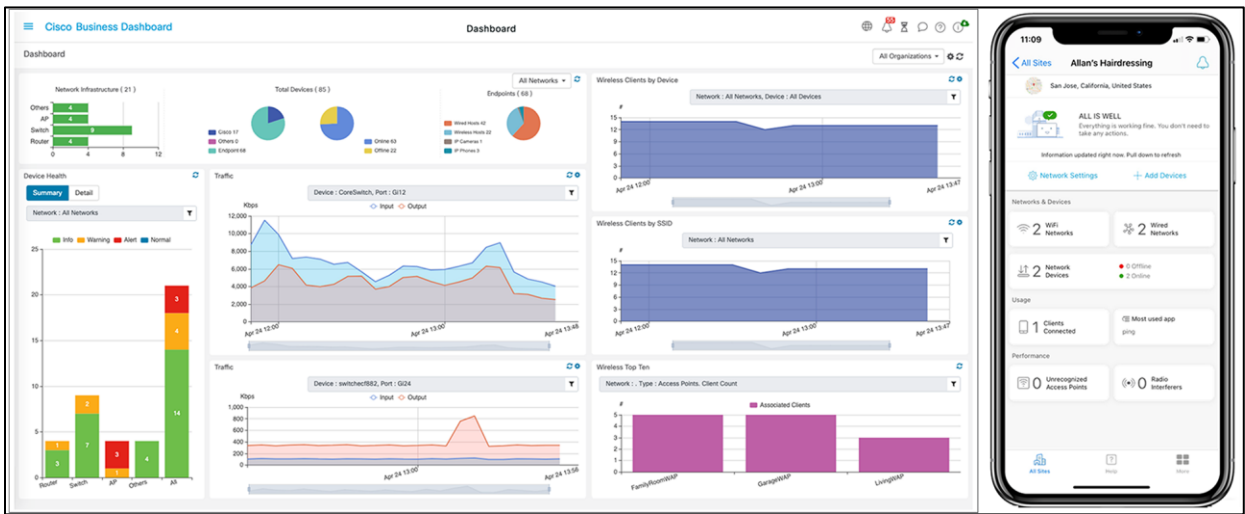


Figure 1.
Cisco Business Dashboard and Cisco Business mobile app

Cisco Business 350 series managed switches

The Cisco Business 350 Series Switches, part of the Cisco Business line of network solutions, is a portfolio of affordable managed switches that provides a critical building block for any small office network. Intuitive dashboard simplifies network setup, and advanced features accelerate digital transformation, while pervasive security protects business critical transactions. The Cisco Business 350 Series Switches provide the ideal combination of affordability and capabilities for small office and helps you create a more efficient, better-connected workforce. When your business needs advanced networking features and security for the digital transformation yet value is still a top consideration, you're ready for the Cisco Business 350 Series Switches.



Figure 2.
Cisco Business 350 series managed switches

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 Business Series Switches offer a solution to meet your needs. Possible deployment scenarios include:

- **Secure office connectivity:** Cisco Business 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 networking 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.
- **Unified communications:** As a managed network solution, the Cisco Business 350 Series Switches provide 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 Business 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 Business 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 Business 350 Series Switches provide the advanced feature set that growing businesses require and that high-bandwidth applications and technologies demand. The switches provide the following benefits.

Ease of Management and Deployment

Cisco Business 350 Series Switches are designed to be easy to use and manage by commercial customers or the partners that serve them, including the following features:

- Cisco Business Dashboard is designed to manage Cisco Business switches, routers, and wireless access points. Cisco Business Dashboard simplifies traditional challenges in deploying and managing business networks while automating the deployment, monitoring, and lifecycle management of the network. Cisco Business 350 Series switches support embedded probe for Cisco Business Dashboard, eliminating the need to set up a separate hardware or virtual machine on site. For more information, visit <https://www.cisco.com/go/cbd>
- The Cisco Network Plug and Play solution provides a simple, secure, unified, and integrated offering to ease new 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.
- The intuitive user 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 Text view, a full Command-Line Interface (CLI) option for partners that prefer it.

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- 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 ensure business continuity and that employees can always access the data and resources they need. The Cisco Business 350 Series Switches support 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 Business 350 Series Switches provide the advanced security features you need to protect your business data and keep unauthorized users off the network:

- Support for advanced network security applications such as IEEE 802.1X and 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.

Power over Ethernet

Cisco Business 350 Series Switches are available with up to 48 Power over Ethernet (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 and 802.3at PoE+. 60W PoE is also supported on select switches to power high-performance wireless access points and Internet of Things (IoT) devices.

IPv6 Support

As the IP address scheme evolves to accommodate a growing number of network devices, the Cisco Business 350 Series Switches can support the transition to the next generation of networking. 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 Business 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 Business 350 Series Switches enable a more advanced set of traffic management capabilities to help growing businesses organize their networks more effectively and efficiently. For example, the switches provide dynamic 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.

True stacking

Cisco Business 350 Series switches provide true stacking capability, allowing you to configure, manage, and troubleshoot all switches in a stack as a single unit with a single IP address.

A true stack delivers a unified data and control plane, in addition to management plane, providing flexibility, scalability, and ease of use because the stack of units operates as a single entity constituting all the ports of the stack members. This capability can radically reduce complexity in a growing network environment while improving the resiliency and availability of network applications. True stacking also provides other cost savings and administrative benefits through features such as cross-stack QoS, VLANs, LAGs, and port mirroring, which clustered switches cannot support.

Compact Design

The sleek and compact design for the Cisco Business 350 Series Switches provide additional deployment flexibility, including outside wiring closet installation such as retail stores, open plan offices, and classrooms without disturbing the environment.

Power Efficiency

The Cisco Business 350 Series Switches integrate 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 protect the environment and reduce your energy costs. They provide an eco-friendly network solution without compromising performance. Cisco Business 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
- Automatic power shutoff on ports when a link is down
- Embedded intelligence to adjust signal strength based on the length of the connecting cable
- Fanless design in most models, which reduces power consumption, increases reliability, and provides quieter operation

Peace of Mind and Investment Protection

Cisco Business 350 Series Switches offer the reliable performance and peace of mind you expect from a Cisco switch. A solution that has been rigorously tested to help ensure optimal network uptime to ensure business continuity. Complementary one-year access to our Small Business Support Center for ongoing support. Limited lifetime warranty with Next-Business-Day (NBD) advance replacement (where available) keeps your business running smoothly.

Product specifications

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

Table 1. Product Specifications

Feature	Description		
Performance			
Switching capacity and forwarding rate All switches are wire speed and nonblocking	Model Name	Capacity in Millions of Packets per Second (mpps) (64-byte packets)	Switching Capacity in Gigabits per Second (Gbps)
	CBS350-8T-E-2G	14.88	20.0
	CBS350-8P-2G	14.88	20.0
	CBS350-8P-E-2G	14.88	20.0
	CBS350-8FP-2G	14.88	20.0
	CBS350-8FP-E-2G	14.88	20.0
	CBS350-8S-E-2G	14.88	20.0
	CBS350-16T-2G	26.78	36.0
	CBS350-16T-E-2G	26.78	36.0
	CBS350-16P-2G	26.78	36.0
	CBS350-16P-E-2G	26.78	36.0
	CBS350-16FP-2G	26.78	36.0
	CBS350-24T-4G	41.66	56.0
	CBS350-24P-4G	41.66	56.0
	CBS350-24FP-4G	41.66	56.0
	CBS350-24S-4G	41.66	56.0
	CBS350-48T-4G	77.38	104.0
	CBS350-48P-4G	77.38	104.0
	CBS350-48FP-4G	77.38	104.0
	CBS350-24T-4X	95.23	128.0
	CBS350-24P-4X	95.23	128.0
	CBS350-24FP-4X	95.23	128.0
	CBS350-48T-4X	130.94	176.0

Feature	Description
	CBS350-48P-4X 130.94 176.0
	CBS350-48FP-4X 130.94 176.0
	CBS350-8MGP-2X 46.13 62.0
	CBS350-8MP-2X 29.76 80.0
	CBS350-24MGP-4X 104.16 140.0
	CBS350-12NP-4X 148.80 200.0
	CBS350-24NGP-4X 142.85 192.0
	CBS350-48NGP-4X 178.56 240.0
	CBS350-8XT 119.05 160.0
	CBS350-12XS 178.56 240.0
	CBS350-12XT 178.56 240.0
	CBS350-16XTS 238.08 320.0
	CBS350-24XS 240.00 480.0
	CBS350-24XT 240.00 480.0
	CBS350-24XTS 240.00 480.0
	CBS350-48XT-4X 755.81 1,040.0
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

Feature	Description
	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. Voice Services Discovery Protocol (VSDP) delivers network wide 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)
VLAN Translation	Support for VLAN One-to-One Mapping. In VLAN One-to-One Mapping, on an edge interface customer VLANs (C-VLANs) are mapped to service provider VLANs (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 (Tag Protocol Identifier [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 black holing 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
IGMP proxy	The IGMP proxy provides a mechanism for multicast forwarding based on IGMP membership information without the need for more complicated multicast routing protocols.
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	

Feature	Description
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, Link Aggregation (LAG), VLAN interface, or loopback interface
Classless Interdomain Routing (CIDR)	Support for classless interdomain routing
RIP v2	Support for Routing Information Protocol version 2 for dynamic routing
Policy-Based Routing (PBR)	Flexible routing control to direct packets to different next hop based on IPv4 or IPv6 Access Control List (ACL)
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 Bootstrap Protocol (BOOTP)/DHCP packets
Stacking	
Hardware stacking	Up to 4 units in a stack. Up to 200 ports managed as a single system with hardware failover Stacking is supported on the following models CBS350-24T-4X, CBS350-24P-4X, CBS350-24FP-4X, CBS350-48T-4X, CBS350-48P-4X, CBS350-48FP-4X CBS350-8MP-2X, CBS350-24MGP-4X, CBS350-12NP-4X, CBS350-24NGP-4X, CBS350-48NGP-4X CBS350-8XT, CBS350-12XS, CBS350-12XT, CBS350-16XTS, CBS350-24XS, CBS350-24XT, CBS350-24XTS, CBS350-48XT-4X
High availability	Fast stack failover delivers minimal traffic loss. Support link aggregation across multiple units in a stack
Plug-and-play stacking configuration/management	Active/standby for resilient stack control Autonumbering Hot swap of units in stack Ring and chain stacking options, auto stacking port speed, flexible stacking port options
High-speed stack interconnects	Cost-effective high-speed 10G fiber interfaces.
Security	
Secure Shell (SSH) Protocol	SSH is a secure replacement for Telnet traffic. Secure Copy Protocol (SCP) also uses SSH. SSH v1 and v2 are supported

Feature	Description
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: Remote Authentication Dial-In User Service (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; MAC authentication
IEEE 802.1X supplicant	A switch can be configured to act as a supplicant to another switch. This enables extended secure access in areas outside the wiring closet (such as conference rooms)
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. This avoids accidental topology loops
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 auto config. 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.
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)	PVE (also known as protected ports) provides Layer 2 isolation between devices in the same VLAN, supports multiple uplinks

Feature	Description
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 1,024 rules Drop or rate limit based on source and destination MAC, VLAN ID, IPv4 or IPv6 address, IPv6 flow label, protocol, port, Differentiated Services Code Point (DSCP)/IP precedence, Transmission Control Protocol/User Datagram Protocol (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)
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
iSCSI traffic optimization	A mechanism for giving priority to iSCSI traffic over other types of traffic
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 802.3ae 10 Gbit/s Ethernet over fiber for LAN, IEEE 802.3an 10GBase-T 10 Gbit/s Ethernet over copper twisted pair cable, 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

Feature	Description
	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
MLD proxy	The MLD proxy provides a mechanism for multicast forwarding based on MLD membership information without the need for more complicated multicast routing protocols.
IPv6 applications	Web/SSL, Telnet server/SSH, ping, traceroute, Simple Network Time Protocol (SNTP), Trivial File Transfer Protocol (TFTP), SNMP, RADIUS, syslog, Domain Name System (DNS) client, Telnet Client, DHCP Client, DHCP Autoconfig, IPv6 DHCP Relay, Terminal Access Controller Access Control System Plus (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 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 mechanism RFC 5214 (which obsoletes RFC 4214): ISATAP tunneling

Feature	Description	
	RFC 4293: MIB IPv6: textual conventions and general group RFC 3595: textual conventions for IPv6 flow label	
Management		
Cisco Business Dashboard	Support for embedded probe for Cisco Business Dashboard running on the switch. Eliminates the need to set up a separate hardware or virtual machine for the Cisco Business Dashboard Probe on site.	
Cisco Business mobile app	Mobile app for Cisco Business Switch and Wireless products. Helps to set up a local network in minutes and provide easy management at your fingertips.	
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	
Web user interface	Built-in switch configuration utility for easy browser-based device configuration (HTTP/HTTPS). Supports simple and advanced mode, configuration, wizards, customizable dashboard, system maintenance, monitoring, online help, and universal search	
SNMP	SNMP versions 1, 2c, and 3 with support for traps, and SNMP version 3 User-based Security Model (USM)	
Standard Management Information Bases (MIBs)	lldp-MIB lldpextdot1-MIB lldpextdot3-MIB lldpextmed-MIB rfc2674-MIB rfc2575-MIB rfc2573-MIB rfc2233-MIB rfc2013-MIB rfc2012-MIB rfc2011-MIB RFC-1212 RFC-1215 SNMPv2-CONF SNMPv2-TC p-bridge-MIB q-bridge-MIB rfc1389-MIB rfc1493-MIB rfc1611-MIB	rfc2668-MIB rfc2737-MIB rfc2925-MIB rfc3621-MIB rfc4668-MIB rfc4670-MIB trunk-MIB tunnel-MIB udp-MIB draft-ietf-bridge-8021x-MIB draft-ietf-bridge-rstpmib-04-MIB draft-ietf-hubmib-etherif-mib-v3-00-MIB draft-ietf-syslog-device-MIB ianaaddrfamnumbers-MIB ianaifty-MIB ianaprot-MIB inet-address-MIB ip-forward-MIB ip-MIB

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

Feature	Description
	CISCOB-tbi-MIB CISCOB-macbaseprio-MIB CISCOB-policy-MIB CISCOB-env_mib CISCOB-sensor-MIB CISCOB-aaa-MIB CISCOB-application-MIB CISCOB-bridgesecurity-MIB CISCOB-copy-MIB CISCOB-CpuCounters-MIB CISCOB-Custom1BonjourService-MIB CISCOB-dhcp-MIB CISCOB-dlf-MIB CISCOB-dnscl-MIB CISCOB-embweb-MIB CISCOB-fft-MIB CISCOB-file-MIB CISCOB-greeneth-MIB CISCOB-interfaces-MIB CISCOB-interfaces_recovery-MIB CISCOB-ssl-MIB CISCOB-qosclimib-MIB CISCOB-digitalkeymanage-MIB CISCOB-tbp-MIB CISCOB-MIB CISCOB-secsd-MIB CISCOB-draft-ietf-entmib-sensor-MIB CISCOB-draft-ietf-syslog-device-MIB CISCOB-rfc2925-MIB CISCO-SMI-MIB CISCOB-DebugCapabilities-MIB CISCOB-CDP-MIB CISCOB-vlanVoice-MIB CISCOB-EVENTS-MIB CISCOB-sysmng-MIB CISCOB-sct-MIB CISCO-TC-MIB CISCO-VTP-MIB CISCO-CDP-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 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.
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.
Flow-based redirection and mirroring	Redirect or mirror traffic to a destination port or mirroring session based on flow
Remote Switch Port Analyzer (RSPAN)	Traffic can be mirrored across Layer 2 domain to a remote port on a different switch for easier troubleshooting
sFlow agent	Switch can export sFlow sample to external collectors. sFlow provides visibility into network traffic down to flow level

Feature	Description
DHCP (options 12, 59, 60, 66, 67, 82, 125, 129, and 150)	DHCP options facilitate tighter control from a central point (DHCP server) to obtain IP address, autoconfiguration (with configuration and image 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
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
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
Green (power efficiency)	
Energy Detect	Automatically turns power off on 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. 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	PoE power can be on or off based on user-defined schedule to save energy
General	
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

Feature	Description		
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. It also learns the connected device and its characteristics via Cisco Discovery Protocol		
Power over Ethernet (PoE)			
802.3af PoE, 802.3at PoE+ or 60W PoE delivered over the RJ-45 ports within the listed power budgets	The following switches support 802.3at PoE+, 802.3af, and Cisco prestandard (legacy) PoE. 60W PoE is also supported on select RJ-45 network ports on select models. The total power available for PoE per switch is as follows:		
	Model Name	Power Dedicated to PoE	Number of Ports That Support PoE
	CBS350-8P-2G	67W	8
	CBS350-8P-E-2G	60W	8
	CBS350-8FP-2G	120W	8
	CBS350-8FP-E-2G	120W	8
	CBS350-16P-2G	120W	16
	CBS350-16P-E-2G	120W	16
	CBS350-16FP-2G	240W	16
	CBS350-24P-4G	195W	24
	CBS350-24FP-4G	370W	24
	CBS350-48P-4G	370W	48
	CBS350-48FP-4G	740W	48
	CBS350-24P-4X	195W	24
	CBS350-24FP-4X	370W	24
	CBS350-48P-4X	370W	48
	CBS350-48FP-4X	740W	48
	CBS350-8MGP-2X	124W	8
	CBS350-8MP-2X	375W	8 (4 support 60W PoE)
	CBS350-24MGP-4X	375W	24 (4 support 60W PoE)
	CBS350-12NP-4X	375W	12 (8 support 60W PoE)
CBS350-24NGP-4X	375W	24 (8 support 60W PoE)	

Feature	Description		
	CBS350-48NGP-4X	740W	48 (8 support 60W PoE)
Hardware			
Power consumption (worst case)	Model	System Power Consumption	Heat Dissipation (BTU/hr)
	CBS350-8T-E-2G	110V=12.55W 220V=12.56W	N/A 42.86
	CBS350-8P-2G	110V=17.35W 220V=17.95W	110V=83.17W 220V=82.63W 283.79
	CBS350-8P-E-2G	110V=13.84W 220V=14.31W	110V=80.79W 220V=80.86W 275.91
	CBS350-8FP-2G	110V=17.29W 220V=17.88W	110V=148.12W 220V=146.36W 505.41
	CBS350-8FP-E-2G	110V=17.07W 220V=16.68W	110V=147.48W 220V=145.26W 503.22
	CBS350-8S-E-2G	110V=11.1W 220V=11.9W	N/A 40.6
	CBS350-16T-2G	110V=18.63W 220V=18.37W	N/A 64.46
	CBS350-16T-E-2G	110V=19.63W 220V=19.32W	N/A 65.92
	CBS350-16P-2G	110V=24.51W 220V=25.01W	110V=156.4W 220V=154.5W 536.39
	CBS350-16P-E-2G	110V=23.65W 220V=23.68W	110V=150.1W 220V=148.8W 512.16
	CBS350-16FP-2G	110V=27.53W 220V=26.68W	110V=284W 220V=279.8W 971.78
	CBS350-24T-4G	110V=25.91W 220V=25.63W	N/A 89.13
	CBS350-24P-4G	110V=34.42W 220V=33.09W	110V=239.7W 220V=236.4W 820.62
	CBS350-24FP-4G	110V=46.60W	110V=449.7W 1,537.17

Feature	Description			
		220V=46.35W	220V=438.3W	
	CBS350-24S-4G	110V=32.0W 220V=34.3W	N/A	117.0
	CBS350-48T-4G	110V=48.27W 220V=48.64W	N/A	165.96
	CBS350-48P-4G	110V=60.77W 220V=59.73W	110V=451.95W 220V=445.85W	1,542.12
	CBS350-48FP-4G	110V=73.79W 220V=74.03W	110V=886.42W 220V=859.50W	3,024.59
	CBS350-24T-4X	110V=27.54W 220V=27.25W	N/A	93.32
	CBS350-24P-4X	110V=35.72W 220V=34.53W	110V=240.4W 220V=236.9W	823.01
	CBS350-24FP-4X	110V=47.14W 220V=47.01W	110V=451.8W 220V=437.4W	1,544.34
	CBS350-48T-4X	110V=51.01W 220V=50.58W	N/A	174.06
	CBS350-48P-4X	110V=61.53W 220V=60.73W	110V=471.90W 220V=463.32W	1,610.19
	CBS350-48FP-4X	110V=76.18W 220V=76.22W	110V=889.35W 220V=865.02W	3,034.59
	CBS350-8MGP-2X	110V=29.8W 220V=31.3W	110V=167W 220V=165.2W	569.5
	CBS350-8MP-2X	110V=48.4W 220V=50.5W	110V=312.4W 220V=307.3W	1,065.9
	CBS350-24MGP-4X	110V=64.3W 220V=64.8W	110V=476.6W 220V=450.6W	1,626.2
	CBS350-12NP-4X	110V=59.8W 220V=60.1W	110V=494.5W 220V=476.4W	1,687.3
	CBS350-24NGP-4X	110V=56.9W 220V=56.6W	110V=488.9W 220V=474.5W	1,668.2
	CBS350-48NGP-4X	110V=94.1W	110V=916W	3,125.5

Feature		Description		
		220V=93.7W	220V=914.4W	
	CBS350-8XT	110V=50.3W 220V=50.3W	N/A	171.6
	CBS350-12XS	110V=24.3W 220V=25.3W	N/A	86.33
	CBS350-12XT	110V=63.9W 220V=64.1W	N/A	218.7
	CBS350-16XTS	110V=57W 220V=57.7W	N/A	196.88
	CBS350-24XS	110V=38.5W 220V=39.0W	N/A	133.1
	CBS350-24XT	110V=124.1W 220V=124.5W	N/A	424.8
	CBS350-24XTS	110V=78.4W 220V=80.2W	N/A	273.65
	CBS350-48XT-4X	110V=234.4W 220V=229.2W	N/A	799.8
Ports	Model Name	Total System Ports	RJ-45 Ports	Combo Ports (RJ45 + Small form-factor pluggable [SFP])
	CBS350-8T-E-2G	10 x Gigabit Ethernet	8 x Gigabit Ethernet	2 x Gigabit Ethernet combo
	CBS350-8P-2G	10 x Gigabit Ethernet	8 x Gigabit Ethernet	2 x Gigabit Ethernet combo
	CBS350-8P-E-2G	10 x Gigabit Ethernet	8 x Gigabit Ethernet	2 x Gigabit Ethernet combo
	CBS350-8FP-2G	10 x Gigabit Ethernet	8 x Gigabit Ethernet	2 x Gigabit Ethernet combo
	CBS350-8FP-E-2G	10 x Gigabit Ethernet	8 x Gigabit Ethernet	2 x Gigabit Ethernet combo
	CBS350-8S-E-2G	10 x Gigabit Ethernet	8 x Gigabit SFP Slots	2 x Gigabit Ethernet combo
	CBS350-16T-2G	18 x Gigabit Ethernet	16 x Gigabit Ethernet	2 x SFP
	CBS350-16T-E-2G	18 x Gigabit Ethernet	16 x Gigabit Ethernet	2 x SFP

Feature	Description			
	CBS350-16P-2G	18 x Gigabit Ethernet	16 x Gigabit Ethernet	2 x SFP
	CBS350-16P-E-2G	18 x Gigabit Ethernet	16 x Gigabit Ethernet	2 x SFP
	CBS350-16FP-2G	18 x Gigabit Ethernet	16 x Gigabit Ethernet	2 x SFP
	CBS350-24T-4G	28 x Gigabit Ethernet	24 x Gigabit Ethernet	4 x SFP
	CBS350-24P-4G	28 x Gigabit Ethernet	24 x Gigabit Ethernet	4 x SFP
	CBS350-24FP-4G	28 x Gigabit Ethernet	24 x Gigabit Ethernet	4 x SFP
	CBS350-24S-4G	28 x Gigabit Ethernet	24 x Gigabit SFP Slots	2 x Gigabit Ethernet combo + 2 SFP
	CBS350-48T-4G	52 x Gigabit Ethernet	48 x Gigabit Ethernet	4 x SFP
	CBS350-48P-4G	52 x Gigabit Ethernet	48 x Gigabit Ethernet	4 x SFP
	CBS350-48FP-4G	52 x Gigabit Ethernet	48 x Gigabit Ethernet	4 x SFP
	CBS350-24T-4X	24 x Gigabit Ethernet + 4 x 10G	24 x Gigabit Ethernet	4 x SFP+
	CBS350-24P-4X	24 x Gigabit Ethernet + 4 x 10G	24 x Gigabit Ethernet	4 x SFP+
	CBS350-24FP-4X	24 Gigabit Ethernet + 4 x 10G	24 x Gigabit Ethernet	4 x SFP+
	CBS350-48T-4X	48 Gigabit Ethernet + 4 x 10G	48 x Gigabit Ethernet	4 x SFP+
	CBS350-48P-4X	48 Gigabit Ethernet + 4 x 10G	48 x Gigabit Ethernet	4 x SFP+
	CBS350-48FP-4X	48 Gigabit Ethernet + 4 x 10G	48 x Gigabit Ethernet	4 x SFP+
	CBS350-8MGP-2X	6 x Gigabit Ethernet + 2 x 2.5G + 2 x Multigigabit	6 x Gigabit Ethernet + 2 x 2.5G	2 x Multigigabit/SFP+ combo
	CBS350-8MP-2X	8 x 2.5G + 2 x 10G	8 x 2.5G	2 x 10G copper/SFP+ combo
	CBS350-24MGP-4X	20 x Gigabit Ethernet + 4 x 2.5G + 4 x 10G	20 x Gigabit Ethernet + 4 x 2.5G	2 x 10G copper/SFP+ combo + 2 SFP+

Feature	Description			
	CBS350-12NP-4X	12 x 5G + 4 x 10G	12 x 5G	2 x 10G copper/SFP+ combo + 2 SFP+
	CBS350-24NGP-4X	16 x Gigabit Ethernet + 8 x 5G + 4 x 10G	16 x Gigabit Ethernet + 8 x 5G	2 x 10G copper/SFP+ combo + 2 SFP+
	CBS350-48NGP-4X	40 x Gigabit Ethernet + 8 x 5G + 4 x 10G	40 x Gigabit Ethernet + 8 x 5G	2 x 10G copper/SFP+ combo + 2 SFP+
	CBS350-8XT	6 x 10G copper + 2 x 10G copper/SFP+ combo + 1 x GE OOB management	6 x 10G copper	2 x 10G copper/SFP+ combo
	CBS350-12XS	10 x 10G SFP+ + 2 x 10G copper/SFP+ combo + 1 x GE OOB management	10 x 10G SFP+	2 x 10G copper/SFP+ combo
	CBS350-12XT	10 x 10G copper + 2 x 10G copper/SFP+ combo + 1 x GE OOB management	10 x 10G copper	2 x 10G copper/SFP+ combo
	CBS350-16XTS	8 x 10G copper + 8 x 10G SFP+ + 1 x GE OOB management	8 x 10G copper	8 x 10G SFP+
	CBS350-24XS	20 x 10G SFP+ + 4 x 10G copper/SFP+ combo + 1 x GE OOB management	20 x 10G SFP+	4 x 10G copper/SFP+ combo
	CBS350-24XT	20 x 10G copper + 4 x 10G copper/SFP+ combo + 1 x GE OOB management	20 x 10G copper	4 x 10G copper/SFP+ combo
	CBS350-24XTS	12 x 10G copper + 12 x 10G SFP+ + 1 x GE OOB management	12 x 10G copper	12 x 10G SFP+
	CBS350-48XT-4X	48 x 10G copper + 4 x 10G SFP+ + 1 x GE OOB management	48 x 10G copper	4 x 10G SFP+
Console port	Cisco standard RJ45 console port			
USB slot	USB Type-A slot on the front panel of the switch for easy file and image management			
Buttons	Reset button			
Cabling type	Unshielded Twisted Pair (UTP) Category 5e or better for 1000BASE-T			
LEDs	System, Link/Act, PoE, Speed			
Flash	256 MB			

Feature	Description	
CPU	800 MHz ARM	
DRAM	512 MB	
Packet buffer	All numbers are aggregate across all ports as the buffers are dynamically shared:	
	Model Name	Packet Buffer
	CBS350-8T-E-2G	1.5 MB
	CBS350-8P-2G	1.5 MB
	CBS350-8P-E-2G	1.5 MB
	CBS350-8FP-2G	1.5 MB
	CBS350-8FP-E-2G	1.5 MB
	CBS350-8S-E-2G	1.5 MB
	CBS350-16T-2G	1.5 MB
	CBS350-16T-E-2G	1.5 MB
	CBS350-16P-2G	1.5 MB
	CBS350-16P-E-2G	1.5 MB
	CBS350-16FP-2G	1.5 MB
	CBS350-24T-4G	1.5 MB
	CBS350-24P-4G	1.5 MB
	CBS350-24FP-4G	1.5 MB
	CBS350-24S-4G	1.5 MB
	CBS350-48T-4G	3 MB
	CBS350-48P-4G	3 MB
	CBS350-48FP-4G	3 MB
	CBS350-24T-4X	1.5 MB
	CBS350-24P-4X	1.5 MB
	CBS350-24FP-4X	1.5 MB
	CBS350-48T-4X	3 MB
	CBS350-48P-4X	3 MB

Feature	Description			
	CBS350-48FP-4X	3 MB		
	CBS350-8MGP-2X	1.5 MB		
	CBS350-8MP-2X	1.5 MB		
	CBS350-24MGP-4X	3 MB		
	CBS350-12NP-4X	3 MB		
	CBS350-24NGP-4X	3 MB		
	CBS350-48NGP-4X	6 MB		
	CBS350-8XT	6 MB		
	CBS350-12XS	3 MB		
	CBS350-12XT	3 MB		
	CBS350-16XTS	3 MB		
	CBS350-24XS	3 MB		
	CBS350-24XT	3 MB		
	CBS350-24XTS	3 MB		
	CBS350-48XT-4X	10 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-SX-MMD	Multimode fiber	1000 Mbps	550 m
	GLC-LH-SMD	Single-mode fiber	1000 Mbps	10 km
	GLC-BX-U	Single-mode fiber	1000 Mbps	10 km

Feature		Description		
	GLC-BX-D	Single-mode fiber	1000 Mbps	10 km
	GLC-TE	UTP cat 5e	1000 Mbps	100 m
	SFP-H10GB-CU1M	Copper coax	10 Gig	1 m
	SFP-H10GB-CU3M	Copper coax	10 Gig	3 m
	SFP-H10GB-CU5M	Copper coax	10 Gig	5 m
	SFP-10G-SR	Multimode fiber	10 Gig	26 m - 400 m
	SFP-10G-LR	Single-mode fiber	10 Gig	10 km
	SFP-10G-SR-S	Multimode fiber	10 Gig	26 m - 400 m
	SFP-10G-LR-S	Single-mode fiber	10 Gig	10 km
Environmental				
Unit dimensions (W x D x H)	Model Name		Unit Dimensions	
	CBS350-8T-E-2G		268 x 185 x 44 mm (10.56 x 7.28 x 1.73 in)	
	CBS350-8P-2G		268 x 272 x 44 mm (10.56 x 10.71 x 1.73 in)	
	CBS350-8P-E-2G		268 x 185 x 44 mm (10.56 x 7.28 x 1.73 in)	
	CBS350-8FP-2G		268 x 272 x 44 mm (10.56 x 10.71 x 1.73 in)	
	CBS350-8FP-E-2G		268 x 185 x 44 mm (10.56 x 7.28 x 1.73 in)	
	CBS350-8S-E-2G		280 x 170 x 44 mm (11.0 x 6.69 x 1.73 in)	
	CBS350-16T-2G		268 x 272 x 44 mm (10.56 x 10.69 x 1.73 in)	
	CBS350-16T-E-2G		268 x 210 x 44 mm (10.56 x 8.26 x 1.73 in)	
	CBS350-16P-2G		268 x 297 x 44 mm (10.56 x 11.69 x 1.73 in)	
	CBS350-16P-E-2G		268 x 210 x 44 mm (10.56 x 8.26x 1.73 in)	
	CBS350-16FP-2G		268 x 308 x 44 mm (10.56 x 12.14 x 1.73 in)	
	CBS350-24T-4G		445 x 240 x 44 mm (17.5 x 9.45 x 1.73 in)	
	CBS350-24P-4G		445 x 299 x 44 mm (17.5 x 11.77 x 1.73 in)	
	CBS350-24FP-4G		445 x 345 x 44 mm (17.5 x 13.59 x 1.73 in)	

Feature	Description	
	CBS350-24S-4G	440 x 203 x 44 mm (17.3 x 7.99 x 1.73 in)
	CBS350-48T-4G	445 x 288 x 44 mm (17.5 x 11.33 x 1.73 in)
	CBS350-48P-4G	445 x 350 x 44 mm (17.5 x 13.78 x 1.73 in)
	CBS350-48FP-4G	445 x 350 x 44 mm (17.5 x 13.78 x 1.73 in)
	CBS350-24T-4X	445 x 240 x 44 mm (17.5 x 9.45 x 1.73 in)
	CBS350-24P-4X	445 x 299 x 44 mm (17.5 x 11.77 x 1.73 in)
	CBS350-24FP-4X	445 x 345 x 44 mm (17.5 x 13.59 x 1.73 in)
	CBS350-48T-4X	445 x 288 x 44 mm (17.5 x 11.33 x 1.73 in)
	CBS350-48P-4X	445 x 350 x 44 mm (17.5 x 13.78 x 1.73 in)
	CBS350-48FP-4X	445 x 350 x 44 mm (17.5 x 13.78 x 1.73 in)
	CBS350-8MGP-2X	344 x 252 x 44 mm (13.6 x 9.94 x 1.73 in)
	CBS350-8MP-2X	344 x 252 x 44 mm (13.6 x 9.94 x 1.73 in)
	CBS350-24MGP-4X	440 x 257 x 44 mm (17.3 x 10.12 x 1.73 in)
	CBS350-12NP-4X	440 x 257 x 44 mm (17.3 x 10.12 x 1.73 in)
	CBS350-24NGP-4X	440 x 350 x 44 mm (17.3 x 13.78 x 1.73 in)
	CBS350-48NGP-4X	440 x 350 x 44 mm (17.3 x 13.78 x 1.73 in)
	CBS350-8XT	440 x 203 x 44 mm (17.3 x 8.0 x 1.73 in)
	CBS350-12XS	440 x 257 x 44 mm (17.3 x 10.12 x 1.73 in)
	CBS350-12XT	440 x 203 x 44 mm (17.3 x 8.0 x 1.73 in)
	CBS350-16XTS	440 x 257 x 44 mm (17.3 x 10.12 x 1.73 in)
	CBS350-24XS	440 x 350 x 44 mm (17.3 x 13.78 x 1.73 in)
	CBS350-24XT	440 x 350 x 44 mm (17.3 x 13.78 x 1.73 in)
	CBS350-24XTS	440 x 350 x 44 mm (17.3 x 13.78 x 1.73 in)
	CBS350-48XT-4X	440 x 450 x 44 mm (17.3 x 17.72 x 1.73 in)
Unit weight	Model Name	Unit Weight
	CBS350-8T-E-2G	1.39 kg (3.06 lb)
	CBS350-8P-2G	2.59 kg (5.71 lb)

Feature	Description	
	CBS350-8P-E-2G	1.53 kg (3.37 lb)
	CBS350-8FP-2G	2.59 kg (5.71 lb)
	CBS350-8FP-E-2G	1.53 kg (3.37 lb)
	CBS350-8S-E-2G	1.0 kg (2.20 lb)
	CBS350-16T-2G	1.78 kg (3.92 lb)
	CBS350-16T-E-2G	1.42 kg (3.13 lb)
	CBS350-16P-2G	2.38 kg (5.25 lb)
	CBS350-16P-E-2G	1.42 kg (3.13 lb)
	CBS350-16FP-2G	2.49 kg (5.49 lb)
	CBS350-24T-4G	2.63 kg (5.80 lb)
	CBS350-24P-4G	3.53 kg (7.78 lb)
	CBS350-24FP-4G	4.6 kg (10.14 lb)
	CBS350-24S-4G	2.7 kg (5.95 lb)
	CBS350-48T-4G	3.95 kg (8.71 lb)
	CBS350-48P-4G	5.43 kg (11.97 lb)
	CBS350-48FP-4G	5.82 kg (12.83 lb)
	CBS350-24T-4X	2.78 kg (6.13 lb)
	CBS350-24P-4X	3.68 kg (8.11 lb)
	CBS350-24FP-4X	4.6 kg (10.14 lb)
	CBS350-48T-4X	3.95 kg (8.71 lb)
	CBS350-48P-4X	5.43 kg (11.97 lb)
	CBS350-48FP-4X	5.82 kg (12.83 lb)
	CBS350-8MGP-2X	2.5 kg (5.51 lb)
	CBS350-8MP-2X	2.74 kg (6.04 lb)
	CBS350-24MGP-4X	3.99 kg (8.79 lb)
	CBS350-12NP-4X	4.24 kg (9.35 lb)
	CBS350-24NGP-4X	5.3 kg (11.68 lb)

Feature	Description			
	CBS350-48NGP-4X	5.95 kg (13.12 lb)		
	CBS350-8XT	2.98 kg (6.57 lb)		
	CBS350-12XS	3.42 kg (7.54 lb)		
	CBS350-12XT	2.93 kg (6.46 lb)		
	CBS350-16XTS	3.79 kg (8.36lb)		
	CBS350-24XS	4.4 kg (9.7 lb)		
	CBS350-24XT	5.1 kg (11.2 lb)		
	CBS350-24XTS	4.84 kg (10.67 lb)		
	CBS350-48XT-4X	7.29 kg (16.1 lb)		
	Power	100-240V 50-60 Hz, internal, universal: CBS350-8P-2G, CBS350-8FP-2G, CBS350-16T-2G, CBS350-16P-2G, CBS350-16FP-2G, CBS350-24T-4G, CBS350-24P-4G, CBS350-24FP-4G, CBS350-24S-4G, CBS350-48T-4G, CBS350-48P-4G, CBS350-48FP-4G, CBS350-24T-4X, CBS350-24P-4X, CBS350-24FP-4X, CBS350-48T-4X, CBS350-48P-4X, CBS350-48FP-4X, CBS350-8MGP-2X, CBS350-8MP-2X, CBS350-24MGP-4X, CBS350-12NP-4X, CBS350-24NGP-4X, CBS350-48NGP-4X, CBS350-8XT, CBS350-12XS, CBS350-12XT, CBS350-16XTS, CBS350-24XS, CBS350-24XT, CBS350-24XTS, CBS350-48XT-4X 100-240V 50-60 Hz, external: CBS350-8T-E-2G, CBS350-8P-E-2G, CBS350-8FP-E-2G, CBS350-8S-E-2G, CBS350-16T-E-2G, CBS350-16P-E-2G		
Certification	UL (UL 62368), CSA (CSA 22.2), CE mark, FCC Part 15 (CFR 47) Class A			
Operating temperature	23° to 122° F (-5° to 50° C) CBS350-8T-E-2G, CBS350-8P-2G, CBS350-8P-E-2G, CBS350-8FP-2G, CBS350-8FP-E-2G, CBS350-16T-2G, CBS350-16T-E-2G, CBS350-16P-2G, CBS350-16P-E-2G, CBS350-16FP-2G, CBS350-24T-4G, CBS350-24P-4G, CBS350-24FP-4G, CBS350-48T-4G, CBS350-48P-4G, CBS350-48FP-4G, CBS350-24T-4X, CBS350-24P-4X, CBS350-24FP-4X, CBS350-48T-4X, CBS350-48P-4X, CBS350-48FP-4X 32° to 122° F (0° to 50° C) CBS350-8S-E-2G, CBS350-24S-4G, CBS350-24MGP-4X, CBS350-12NP-4X, CBS350-24NGP-4X, CBS350-48NGP-4X, CBS350-8XT, CBS350-12XS, CBS350-12XT, CBS350-16XTS, CBS350-24XS, CBS350-24XT, CBS350-24XTS, CBS350-48XT-4X 32° to 113° F (0° to 45° C) CBS350-8MGP-2X, CBS350-8MP-2X			
Storage temperature	-13° to 158° F (-25° to 70° C)			
Operating humidity	10% to 90%, relative, noncondensing			
Storage humidity	10% to 90%, relative, noncondensing			
Acoustic noise and Mean Time Between Failure (MTBF)	Model Name	FAN (Number)	Acoustic Noise	MTBF at 25° C (hours)
	CBS350-8T-E-2G	Fanless	N/A	2,171,669

Feature	Description			
	CBS350-8P-2G	Fanless	N/A	1,786,412
	CBS350-8P-E-2G	Fanless	N/A	1,706,649
	CBS350-8FP-2G	Fanless	N/A	1,786,412
	CBS350-8FP-E-2G	Fanless	N/A	1,706,649
	CBS350-8S-E-2G	Fanless	N/A	2,242,229
	CBS350-16T-2G	Fanless	N/A	2,165,105
	CBS350-16T-E-2G	Fanless	N/A	2,165,105
	CBS350-16P-2G	Fanless	N/A	706,983
	CBS350-16P-E-2G	Fanless	N/A	706,983
	CBS350-16FP-2G	Fanless	N/A	706,983
	CBS350-24T-4G	Fanless	N/A	2,026,793
	CBS350-24P-4G	Fanless	N/A	698,220
	CBS350-24FP-4G	1	25° C: 34.8 dBA	698,220
	CBS350-24S-4G	Fanless	N/A	258,544
	CBS350-48T-4G	1	25° C: 29.7 dBA	1,452,667
	CBS350-48P-4G	1	25° C: 37.3 dBA	856,329
	CBS350-48FP-4G	1	25° C:48.7 dBA	856,301
	CBS350-24T-4X	Fanless	N/A	2,026,793
	CBS350-24P-4X	Fanless	N/A	698,220
	CBS350-24FP-4X	1	25° C: 34.8 dBA	698,220
	CBS350-48T-4X	1	25° C: 29.7 dBA	1,452,667
	CBS350-48P-4X	1	25° C:37.3 dBA	856,329
	CBS350-48FP-4X	1	25° C:48.7 dBA	856,301
	CBS350-8MGP-2X	Fanless	N/A	1,524,625
	CBS350-8MP-2X	1	25° C: 41.3 dB	1,237,940
	CBS350-24MGP-4X	3	25° C: 40.5 dB	1,033,942
	CBS350-12NP-4X	3	25° C: 39.4 dB	553,218

Feature	Description			
	CBS350-24NGP-4X	3	25° C: 40.4 dB	562,415
	CBS350-48NGP-4X	4	25° C: 39.6 dB	316,088
	CBS350-8XT	2	25° C: 40.8 dB	1,418,411
	CBS350-12XS	4	25° C: 45.8dB	1,385,554
	CBS350-12XT	2	25° C: 40.5 dB	633,324
	CBS350-16XTS	3	25° C: 39.1dB	798,504
	CBS350-24XS	4	25° C: 43.0 dB	1,356,179
	CBS350-24XT	4	25° C: 41.2 dB	556,642
	CBS350-24XTS	3	25° C: 43.3dB	1,372,246
	CBS350-48XT-4X	5	25° C: 47.9 dB	287,135
Warranty	Limited lifetime with next business day advance replacement (where available)			
Package Contents				
• Cisco Business 350 Series Managed Switch • Power Cord (Power adapter for select 8-port and 16-port SKUs) • Mounting Kit • Quick Start Guide				
Minimum Requirements				
• Web browser: Chrome, Firefox, Edge, Safari • Category 5e Ethernet network cable • TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, or Mac OS X) installed				

Ordering information

Table 2 provides ordering information.

Table 2. Cisco Business 350 Series Switches Ordering Information

Model Name	Order Product ID Number	Description
Gigabit Ethernet		
CBS350-8T-E-2G	CBS350-8T-E-2G-xx	• 8 10/100/1000 ports • 2 Gigabit copper/SFP combo ports • Rack-mountable
CBS350-8P-2G	CBS350-8P-2G-xx	• 8 10/100/1000 PoE+ ports with 67W power budget • 2 Gigabit copper/SFP combo ports • Rack-mountable
CBS350-8P-E-2G	CBS350-8P-E-2G-xx	• 8 10/100/1000 PoE+ ports with 60W power budget • 2 Gigabit copper/SFP combo ports • Rack-mountable
CBS350-8FP-2G	CBS350-8FP-2G-xx	• 8 10/100/1000 PoE+ ports with 120W power budget • 2 Gigabit copper/SFP combo ports • Rack-mountable
CBS350-8FP-E-2G	CBS350-8FP-E-2G-xx	• 8 10/100/1000 PoE+ ports with 120W power budget • 2 Gigabit copper/SFP combo ports • Rack-mountable
CBS350-8S-E-2G	CBS350-8S-E-2G-xx	• 8 Gigabit SFP • 2 Gigabit copper/SFP combo ports • Rack-mountable
CBS350-16T-2G	CBS350-16T-2G-xx	• 16 10/100/1000 ports • 2 Gigabit SFP • Rack-mountable
CBS350-16T-E-2G	CBS350-16T-E-2G-xx	• 16 10/100/1000 ports • 2 Gigabit SFP • Rack-mountable
CBS350-16P-2G	CBS350-16P-2G-xx	• 16 10/100/1000 PoE+ ports with 120W power budget • 2 Gigabit SFP • Rack-mountable
CBS350-16P-E-2G	CBS350-16P-E-2G-xx	• 16 10/100/1000 PoE+ ports with 120W power budget • 2 Gigabit SFP • Rack-mountable
CBS350-16FP-2G	CBS350-16FP-2G-xx	• 16 10/100/1000 PoE+ ports with 240W power budget • 2 Gigabit SFP • Rack-mountable
CBS350-24T-4G	CBS350-24T-4G-xx	• 24 10/100/1000 ports • 4 Gigabit SFP

Model Name	Order Product ID Number	Description
		• Rack-mountable
CBS350-24P-4G	CBS350-24P-4G-xx	• 24 10/100/1000 PoE+ ports with 195W power budget • 4 Gigabit SFP • Rack-mountable
CBS350-24FP-4G	CBS350-24FP-4G-xx	• 24 10/100/1000 PoE+ ports with 370W power budget • 4 Gigabit SFP • Rack-mountable
CBS350-24S-4G	CBS350-24S-4G-xx	• 24 Gigabit SFP • 2 Gigabit copper/SFP combo + 2 Gigabit SFP • Rack-mountable
CBS350-48T-4G	CBS350-48T-4G-xx	• 48 10/100/1000 ports • 4 Gigabit SFP • Rack-mountable
CBS350-48P-4G	CBS350-48P-4G-xx	• 48 10/100/1000 PoE+ ports with 370W power budget • 4 Gigabit SFP • Rack-mountable
CBS350-48FP-4G	CBS350-48FP-4G-xx	• 48 10/100/1000 PoE+ ports with 740W power budget • 4 Gigabit SFP • Rack-mountable
Gigabit Ethernet with 10G Uplinks		
CBS350-24T-4X	CBS350-24T-4X-xx	• 24 10/100/1000 ports • 4 10 Gigabit SFP+ • Rack-mountable
CBS350-24P-4X	CBS350-24P-4X-xx	• 24 10/100/1000 PoE+ ports with 195W power budget • 4 10 Gigabit SFP+ • Rack-mountable
CBS350-24FP-4X	CBS350-24FP-4X-xx	• 24 10/100/1000 PoE+ ports with 370W power budget • 4 10 Gigabit SFP+ • Rack-mountable
CBS350-48T-4X	CBS350-48T-4X-xx	• 48 10/100/1000 ports • 4 10 Gigabit SFP+ • Rack-mountable
CBS350-48P-4X	CBS350-48P-4X-xx	• 48 10/100/1000 PoE+ ports with 370W power budget • 4 10 Gigabit SFP+ • Rack-mountable
CBS350-48FP-4X	CBS350-48FP-4X-xx	• 48 10/100/1000 PoE+ ports with 740W power budget • 4 10 Gigabit SFP+ • Rack-mountable
Multi-Gigabit Ethernet		

Model Name	Order Product ID Number	Description
CBS350-8MGP-2X	CBS350-8MGP-2X-xx	• 6 x 10/100/1000 PoE+ ports • 2 x 2.5G PoE+ ports • 2 x Multigigabit/SFP+ combo • 124W PoE power budget • Rack-mountable
CBS350-8MP-2X	CBS350-8MP-2X-xx	• 8 x 100M/1G/2.5G PoE+ ports (4 support 60W PoE) • 2 x 10G ports (2 x 10G copper/SFP+ combo) • 375W PoE power budget • Rack-mountable
CBS350-24MGP-4X	CBS350-24MGP-4X-xx	• 20 x 10/100/1000 PoE+ ports • 4 x 100M/1G/2.5G PoE+ ports (4 support 60W PoE) • 4 x 10G ports (2 x 10G copper/SFP+ combo + 2 x SFP+) • 375W PoE power budget • Rack-mountable
CBS350-12NP-4X	CBS350-12NP-4X-xx	• 12 x 100M/1G/2.5G/5G PoE+ ports (8 support 60W PoE) • 4 x 10G ports (2 x 10G copper/SFP+ combo + 2 x SFP+) • 375W PoE power budget • Rack-mountable
CBS350-24NGP-4X	CBS350-24NGP-4X-xx	• 16 x 10/100/1000 PoE+ ports • 8 x 100M/1G/2.5G/5G PoE+ ports (8 support 60W PoE) • 4 x 10G ports (2 x 10G copper/SFP+ combo + 2 x SFP+) • 375W PoE power budget • Rack-mountable
CBS350-48NGP-4X	CBS350-48NGP-4X-xx	• 40 x 10/100/1000 PoE+ ports • 8 x 100M/1G/2.5G/5G PoE+ ports (8 support 60W PoE) • 4 x 10G ports (2 x 10G copper/SFP+ combo + 2 x SFP+) • 740W PoE power budget • Rack-mountable
10 Gigabit Ethernet		
CBS350-8XT	CBS350-8XT-xx	• 8 x 10 Gigabit copper ports • 2 x 10 Gigabit SFP+ (combo with 2 x 10G copper ports) • 1 x GE management port • Rack-mountable
CBS350-12XS	CBS350-12XS-xx	• 12 x 10 Gigabit SFP+ • 2 x 10 Gigabit copper ports (combo with 2 x SFP+) • 1 x GE management port • Rack-mountable
CBS350-12XT	CBS350-12XT-xx	• 12 x 10 Gigabit copper ports • 2 x 10 Gigabit SFP+ (combo with 2 x 10G copper ports) • 1 x GE management port • Rack-mountable

Model Name	Order Product ID Number	Description
CBS350-16XTS	CBS350-16XTS-xx	• 8 x 10 Gigabit copper ports • 8 x 10 Gigabit SFP+ (dedicated) • 1 x GE management port • Rack-mountable
CBS350-24XS	CBS350-24XS-xx	• 24 x 10 Gigabit SFP+ • 4 x 10 Gigabit copper ports (combo with 4 x SFP+) • 1 x GE management port • Rack-mountable
CBS350-24XT	CBS350-24XT-xx	• 24 x 10 Gigabit copper ports • 4 x 10 Gigabit SFP+ (combo with 4 x 10G copper ports) • 1 x GE management port • Rack-mountable
CBS350-24XTS	CBS350-24XTS-xx	• 12 x 10 Gigabit copper ports • 12 x 10 Gigabit SFP+ (dedicated) • 1 x GE management port • Rack-mountable
CBS350-48XT-4X	CBS350-48XT-4X-xx	• 48 x 10 Gigabit copper ports • 4 x 10 Gigabit SFP+ (dedicated) • 1 x GE management port • Rack-mountable

The 10 Gigabit Ethernet copper and SFP+ port supports 10 GE and 1 GE speeds.

Each combo port has one copper Ethernet port and one SFP or SFP+ 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 CBS350-24P-4G for the United States is CBS350-24P-4G-NA. Please refer to Table 3 for the correct suffix to use for your country/region.

Cisco Business products are only available through distributors and not available to order directly from Cisco. Partners should order these products from their preferred distributors. End users should order from their preferred partners.

Accessories like power supply and mounting kit are included with the device and not available to order separately as spare parts. Replacement of malfunctioning accessories can be processed under the warranty with a support case.

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	European Economic Area, Switzerland, Turkey, Russia, Ukraine, Israel, United Arab Emirates, Egypt, South Africa, Indonesia, Philippines, Vietnam, Thailand, Korea
-UK	United Kingdom, Saudi Arabia, Qatar, Kuwait, Singapore, Hong Kong, Malaysia
-AU	Australia, New Zealand

Suffix	Country/Region
-CN	China
-IN	India*
-JP	Japan
-KR	Korea
-TW	Taiwan

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.

*CBS350 have been tested as L2 LAN Switch variant for India TEC and will be sold as L2 LAN Switch in India.

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Product sustainability

Information about Cisco's environmental, Social and Governance (ESG) initiatives and performance is provided in Cisco's CSR and sustainability [reporting](#).

Table 4. Cisco environmental sustainability information

Sustainability Topic		Reference
General	Information on product-material-content laws and regulations	Materials
	Information on electronic waste laws and regulations, including our products, batteries and packaging	WEEE Compliance
	Information on product takeback and reuse program	Cisco Takeback and Reuse Program
	Sustainability Inquiries	Contact: csr_inquiries@cisco.com
Material	Product packaging weight and materials	Contact: environment@cisco.com

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For more information

To find out more about the Cisco Business 350 Series switches, visit

<https://www.cisco.com/c/en/us/products/switches/business-350-series-managed-switches/index.html>.

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