

# Cisco Catalyst 6500-E Series Chassis

## Product Overview

Cisco introduces the Cisco® Catalyst® 6500 Enhanced Series Chassis (6500-E Series) delivering up to 2 terabits per second of system bandwidth capacity and 80 Gbps of per-slot bandwidth. In a system configured for VSS, this translates to a system capacity of 4 Tbps. The Cisco® Catalyst® 6500 Enhanced Series Chassis will be capable of delivering up to 180 Gbps of per-slot bandwidth with a system capacity of up to 4 terabits per second. A system configured for VSS will be capable of delivering up to 8 Tbps of system bandwidth.

The Cisco Catalyst 6500-E Series Switch offers the broadest range of interface modules with industry-leading performance and advanced feature integration. The Cisco Catalyst 6500-E Series Switch also offers high port densities and comes in 3-, 4-, 6-, 9, 9-Vertical, and 13-slot versions that make it ideal for a range of deployment scenarios.

The Cisco Catalyst 6500-E Series Chassis provides superior investment protection by supporting multiple generations of products in the same chassis, lowering the total cost of ownership. The Cisco Catalyst 6500-E Series Chassis (Figure 1) supports all the Cisco Catalyst 6500 Supervisor Engines up to and including the Cisco Catalyst 6500 Series Supervisor Engine 2T, and associated LAN, WAN, and services modules.

**Figure 1.** Cisco Catalyst 6500-E Series Chassis



## Applications

The versatile Cisco Catalyst 6500-E Series Chassis is ideal for addressing high-performance, high- port-density Fast Ethernet, Gigabit Ethernet, and 10 and 40 Gigabit Ethernet applications in all parts of the network. This series is ideally suited for enterprise core and aggregation environments. The Cisco Catalyst 6500-E Series chassis offers industry-leading 10/100/1000 Gigabit Ethernet, 10 Gigabit Ethernet and 40 Gigabit Ethernet port densities while providing high levels of network resilience.

## Features and Benefits

Table 1 lists the Cisco Catalyst 6500-E Series Chassis features and benefits.

**Table 1.** Features and benefits

Feature	Benefit
<b>Scalability</b>	
<b>3, 4, 6, 9, 9-V and 13-slot modular chassis</b>	Allows flexibility and room for future growth
<b>Delivers up to 2 terabits per second of system bandwidth capacity and 80 Gbps per-slot for all slots. A system configured for VSS has a system capacity of 4 terabits per second.</b>	Scales the system capacity for future needs
<b>Capable of delivering up to 4 terabits per second of system bandwidth and 180Gbps of per-slot bandwidth. A system configured for VSS will be capable of delivering up to 8 Tbpps of system capacity.</b>	
<b>High interface capacity</b>	Scales to high-density 40 Gigabit Ethernet, 10 Gigabit Ethernet and Gigabit Ethernet configurations
<b>Increased resiliency</b>	
<b>Standby fabric hot sync</b>	Decreases the supervisor engine switchover time of Supervisor Engine 720 and Supervisor Engine 2T based systems to between 50 and 200 ms, depending on the modules being used
<b>Redundant control channel</b>	Increases resiliency to protect against backplane control channel failures
<b>Redundant supervisor engine option</b>	Increases availability with redundant supervisor engine options
<b>Redundant power supply option</b>	Supports redundant power supplies for increased availability
<b>Fan tray</b>	Supports hot-swappable fan tray The 6509-V-E provides for redundant, hot-swappable fan trays
<b>Environmental</b>	
<b>Side-to-side airflow (except Cisco Catalyst 6509-V-E)</b>	Allows ease of access to ports and cables 6509-V-E has front-to-back air flow to support hot aisle or cold aisle designs
<b>AC and DC power supply</b>	Supports both AC and DC power supply options, including AC and DC mixing
<b>Network Equipment Building Standards Layer 3 (NEBS L3) compliant</b>	Supports NEBS L3 compliance for deployment in demanding environments

## Product Specifications

Table 2 lists the Cisco Catalyst 6500-E Series Product Specifications.

**Table 2.** Product Specifications

	6503-E	6504-E	6506-E	6509-E	6509-V-E	6513-E
<b>Number of Slots</b>	3	4	6	9	9	13
<b>Supervisor Compatibility</b>	Cisco Catalyst 6500 Series Supervisor Engine 32 Cisco Catalyst 6500 Series Supervisor Engine 720-3B Cisco Catalyst 6500 Series Supervisor Engine 720-3BXL Cisco Catalyst 6500 Series Supervisor Engine 720-10G-3C Cisco Catalyst 6500 Series Supervisor Engine 720-10G-3CXL Cisco Catalyst 6500 Series Supervisor Engine 2T					
<b>Power Supply Compatibility</b> * Indicates EoS Power Supply	AC: 1400W, 950W DC: 950W	AC: 2700W DC: 2700W	AC: 2500W*, 3000W, 4000W, 6000W, 8700W DC: 2500W, 4000W, 6000W	AC: 2500W*, 3000W, 4000W, 6000W, 8700W DC: 2500W, 4000W, 6000W	AC: 2500W*, 3000W, 4000W, 6000W, 8700W DC: 2500W, 4000W, 6000W	AC: 3000W, 4000W, 6000W, 8700W DC: 2500W, 4000W, 6000W
<b>Module Compatibility</b>	All modules based on the software release in the system					

	6503-E	6504-E	6506-E	6509-E	6509-V-E	6513-E
<b>Software Compatibility</b> (Minimum Software Version)						
<b>With Supervisor Engine 32</b>	• 12.2(18)SXF	• 12.2(18)SXF	• 12.2(18)SXF	• 12.2(18)SXF	• 12.2(18)SXF10	• 12.2(33)SX11 • 12.2(33)SXH2 • 12.2(18)SXF14
<b>With Supervisor Engine 720</b>	• 12.2(14)SX	• 12.2(18)SXE	• 12.2(14)SX	• 12.2(14)SX	• 12.2(18)SXF10	• 12.2(33)SX11 • 12.2(33)SXH2 • 12.2(18)SXF14
<b>With Supervisor Engine 720-10 GE</b>	• 12.2(33)SXH	• 12.2(33)SXH	• 12.2(33)SXH	• 12.2(33)SXH	• 12.2(33)SXH	• 12.2(33)SX11 • 12.2(33)SXH2
<b>With Supervisor Engine 2T-10 GE</b>	• 15.0(1)SY	• 15.0(1)SY	• 15.0(1)SY	• 15.0(1)SY	• 15.0(1)SY	• 15.0(1)SY
<b>Reliability and Availability</b> Calculated Mean Time Between Failure (MTBF)	860,868	677,643	441,418	348,935	330,888	311,778
<b>MIBS</b>	Check the corresponding supervisor engine data sheet					
<b>Network Management</b>	Check the corresponding supervisor engine data sheet					
<b>Physical Dimensions</b>						
<b>Inches</b>	7 x 17.37 x 21.75	8.75 x 17.5 x 21.75	19.2 x 17.5 x 18	24.5 x 17.5 x 18.2	36.65 x 17.2 x 20.7	32.7 x 17.3 x 18.1
<b>Centimeters</b>	17.8 x 44.1 x 55.2	22.2 x 44.45 x 55.25	48.8 x 44.5 x 46.0	62.2 x 44.5 x 46.0	93.3 x 43.1 x 53.3	83.0 x 43.9 x 46
<b>Rack Units (RU)</b>	4	5	11	14	21	19
<b>Weight</b>						
<b>Chassis Only (lbs)</b>	33	40	50	60	121	102
<b>Fully Configured (lbs)</b>	85.4	97	159	190	270	280
<b>Input Voltage</b>	100 to 240 VAC -48 to -60 VDC					
<b>Safety</b>	UL 60950 Second Edition CAN/CSA-C22.2 No. 60950 Second Edition EN 60950 Second Edition IEC 60950 Second Edition AS/NZS 60950					
<b>EMC</b>	FCC Part 15 (CFR 47) Class A VCCI Class A EN55022 Class A CISPR 22 Class A CE marking AS/NZS 3548 Class A ETS300 386 EN55024 EN61000-6-1 EN50082-1					
<b>NEBS/ETSI</b>	GR-1089-Core NEBS Level 3 ETS 300 019 Storage Class 1.1 ETS 300 019 Transportation Class 2.3 ETS 300 019 Stationary Use Class 3.1					

	6503-E	6504-E	6506-E	6509-E	6509-V-E	6513-E
<b>ATIS Pb free and Energy Efficiency</b>	ATIS-0600020.2010 Pb Free circuit packs ATIS-0600015-2009 General Energy Efficiency Requirements (TEER) ATIS-0600015.03-2009 Switch and Router Energy Efficiency ATIS-0600015.01-2009 Server Energy Efficiency VZ.TPR.9205 Verizon Energy Efficiency Requirements for Telecommunication Equipment (TEEER)					
<b>Operating Environment</b>						
<b>Operating Temperature</b>	32°F to 104°F (0 to 40°C)					
<b>Storage Temperature</b>	-4 to 149°F (-20 to 65°C)					
<b>Thermal Transition</b>	0.5°C per minute (hot to cold) 0.33°C per minute (cold to hot)					
<b>Relative Humidity</b>	Ambient (noncondensing) operating: 5% to 90% Ambient (noncondensing) nonoperating and storage: 5% to 95%					
<b>Operating Altitude</b>	Certified for operation: 0 to 6500 ft (0 to 2000 m) Designed and tested for operation: -200 to 10,000 ft (-60 to 3000 m)					

## Ordering Information

Table 3 lists the ordering information for the Cisco Catalyst 6500-E Series Chassis. To place an order, visit the [Cisco ordering homepage](#).

**Table 3.** Ordering Information

Product Name	Part Number
Cisco Catalyst 6503 Enhanced Chassis	WS-C6503-E
Cisco Catalyst 6503 Enhanced Chassis Spare	WS-C6503-E=
Cisco Catalyst 6503 Enhanced Chassis Fan Tray Spare	WS-C6503-E-FAN=
Cisco Catalyst 6504 Enhanced Chassis	WS-C6504-E
Cisco Catalyst 6504 Enhanced Chassis Spare	WS-C6504-E=
Cisco Catalyst 6504 Enhanced Chassis Fan Tray Spare	WS-C6504-E-FAN=
Cisco Catalyst 6506 Enhanced Chassis	WS-C6506-E
Cisco Catalyst 6506 Enhanced Chassis Spare	WS-C6506-E=
Cisco Catalyst 6506 Enhanced Chassis Fan Tray Spare	WS-C6506-E-FAN=
Cisco Catalyst 6509 Enhanced Chassis	WS-C6509-E
Cisco Catalyst 6509 Enhanced Chassis Spare	WS-C6509-E=
Cisco Catalyst 6509 Enhanced Chassis Fan Tray Spare	WS-C6509-E-FAN=
Cisco Catalyst 6509 Vertical Enhanced Chassis	WS-C6509-V-E
Cisco Catalyst 6509 Vertical Enhanced Chassis Spare	WS-C6509-V-E=
Cisco Catalyst 6509 Vertical Enhanced Chassis Fan Tray Spare	WS-C6509-V-E-FAN=
Cisco Catalyst 6513 Enhanced Chassis	WS-C6513-E
Cisco Catalyst 6513 Enhanced Chassis Spare	WS-C6513-E=
Cisco Catalyst 6513 Enhanced Chassis Fan Tray Spare	WS-C6513-E-FAN=
Cisco Catalyst 6500 1400 W AC Power Supply	PWR-1400-AC=
Cisco Catalyst 6500 2700W AC Power Supply	PWR-2700-AC/4=
Cisco Catalyst 6500 3000W AC Power Supply	WS-CAC-3000W=
Cisco Catalyst 6500 6000W AC Power Supply	WS-CAC-6000W=
Cisco Catalyst 6500 8700W Enhanced AC Power Supply	WS-CAC-8700W-E=
Cisco Catalyst 6500 4000W AC Power Supply for US	WS-CAC-4000W-US=

Product Name	Part Number
Cisco Catalyst 6500 4000W AC Power Supply for International	WS-CAC-4000W-INT=
Cisco Catalyst 6500 2500W DC Power Supply	WS-CDC-2500W=
Cisco Catalyst 6500 2700W DC Power Supply	PWR-2700-DC/4=
Cisco Catalyst 6500 4000W DC Power Supply	PWR-4000-DC=
Cisco Catalyst 6500 6000W DC Power Supply	PWR-6000-DC=

### For More Information

For more information about the Cisco Catalyst 6500-E Series chassis, visit:

<http://www.cisco.com/en/US/partner/products/hw/switches/ps708>.



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