

## CISCO CATALYST 6504-E CHASSIS

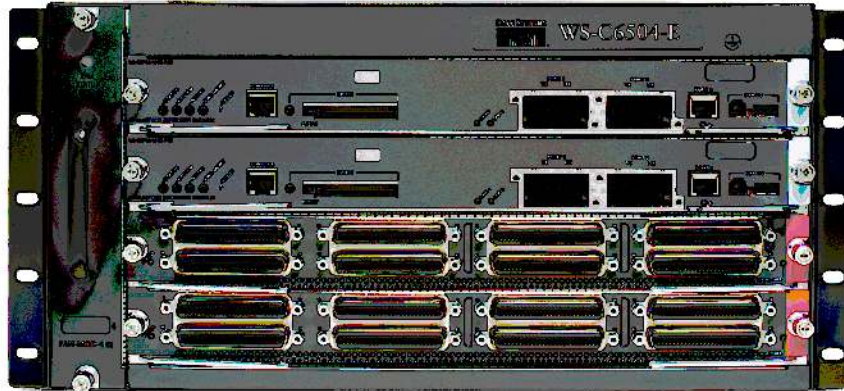
### PRODUCT OVERVIEW

The Cisco® Catalyst® WS-C6504-E Chassis is a 320-Gbps, small form factor, high-performance chassis. With the Cisco Catalyst 6500 Series Supervisor Engine 720, it can deliver up to 80 Gbps of switching capacity per slot. The 6504-E Catalyst switch offers the broadest range of interface modules with industry-leading performance and advanced feature integration.

With this flexibility the Cisco Catalyst 6504-E is suitable for deployments ranging from small and medium-sized core networks to distribution and access networks and to the WAN edge. With high availability and resiliency the platform is well suited for metro provider-edge applications.

The 4-slot Cisco Catalyst 6504-E Chassis delivers performance in a compact 5-rack-unit (5-RU) form factor. It can be configured two ways—with a single supervisor engine and up to three line cards, or with dual supervisor engines and up to two line cards. The Cisco Catalyst 6504-E also supports redundant AC or DC power supplies (Figure 1).

**Figure 1.** Cisco Catalyst 6504-E Chassis

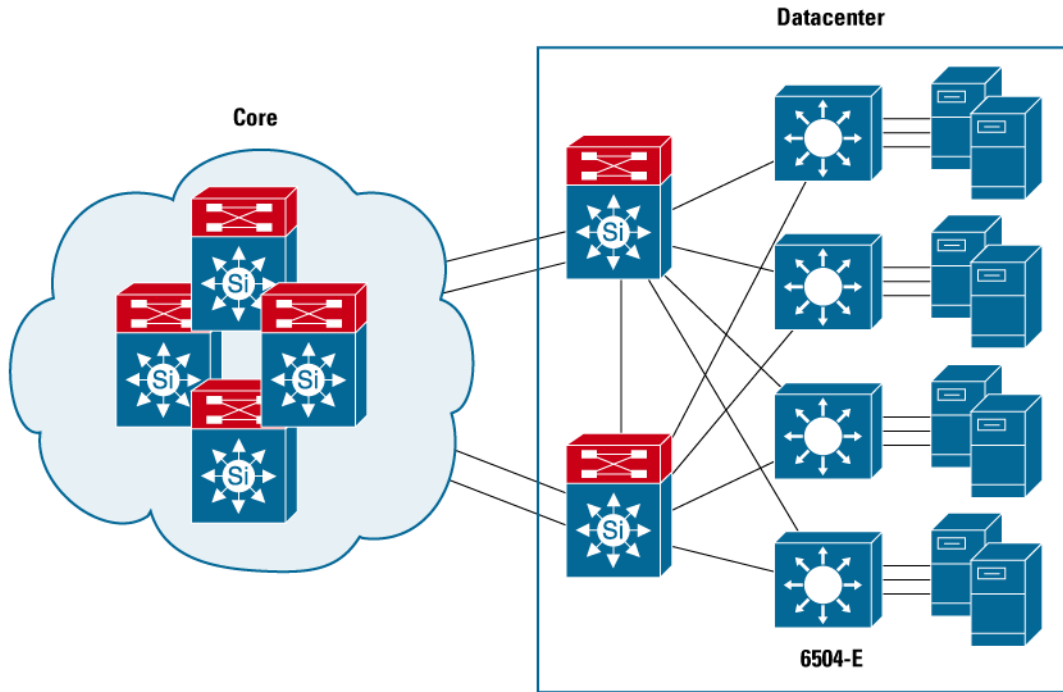


### APPLICATIONS

The interface density and breadth make the Cisco Catalyst 6504-E ideal for deployment in high-performance applications such as:

- Enterprise access layer
- Small or medium-sized enterprise core and distribution layers
- Metro Ethernet edge aggregation
- Enterprise WAN edge

**Figure 2.** Server Aggregation



## PRODUCT SPECIFICATIONS

Table 1 lists product specifications for the Cisco Catalyst 6504-E.

**Table 1.** Cisco Catalyst 6504-E Chassis Specifications

Description	Specifications
<b>Physical Specifications</b>	<ul style="list-style-type: none"> <li>• 5-RU (8.75-in.) chassis</li> <li>• 4-slot chassis</li> <li>• Dimensions (H x W x D): 8.75 x 17.5 x 21.75 in. (22.225 x 44.45 x 55.245 cm)</li> <li>• Weight: 40 lb</li> <li>• Power requirements: 110 to 240 VAC, -48 to -60 VDC</li> <li>• Mean time between failure (MTBF): 7 years for system configuration</li> </ul>
<b>Environmental Conditions</b>	<ul style="list-style-type: none"> <li>• Operating temperature: 32 to 104°F (0 to 40°C)</li> <li>• Storage temperature: -4 to 149°F (-20 to 65°C)</li> <li>• Relative humidity, operating: 10 to 85% noncondensing</li> <li>• Relative humidity, storage: 5 to 95% noncondensing</li> <li>• Operating altitude: -500 to 6500 ft</li> </ul>

Description	Specifications
<b>Regulatory Compliance</b>	EMC <ul style="list-style-type: none"> <li>FCC Part 15 (CFR 47) Class A</li> <li>ICES-003 Class A</li> <li>EN55022 Class A</li> <li>CISPR22 Class A</li> <li>AS/NZS 3548 Class A</li> <li>VCCI Class A</li> <li>EN55024</li> <li>ETS300 386</li> <li>EN50082-1</li> <li>EN61000-3-2</li> <li>EN61000-3-3</li> </ul> Regulatory Compliance <ul style="list-style-type: none"> <li>UL 60950</li> <li>IEC 60825-1, -2</li> <li>IEC 60950</li> <li>EN 60950, EN 60825-1, -2</li> <li>CAN/CSA-C22.2 No. 60950-00</li> <li>AS/NZS 3260-1993</li> <li>21CFR1040</li> </ul>
<b>Safety and Environmental Standard Compliance</b>	<ul style="list-style-type: none"> <li>GR-63-Core NEBS Level 3 (post-FCS)</li> <li>GR-1089-Core NEBS Level 3 (post-FCS)</li> <li>ETSI 300 019 Storage Class 1.1</li> <li>ETSI 300 019 Transportation Class 2.3</li> <li>ETSI 300 019 Stationary Use Class 3.1</li> </ul>
<b>Minimum Software Release</b>	<ul style="list-style-type: none"> <li>Cisco IOS® Software Release 12.2.18SX E</li> <li>Cisco Catalyst OS 8.4.2</li> </ul>
<b>Supervisor Engines Supported</b>	Cisco Catalyst 6500 Series Supervisor Engine 720, 720-3B, 720-3BXL, 32-GE-3B, and 32-10GE-3BXL

## ORDERING INFORMATION

To place an order, visit the Cisco Ordering Home Page or refer to Table 2.

**Table 2.** Ordering Information

Part Number	Description
WS-C6504-E	Cisco Catalyst 6504-E, 4-slot chassis
FAN-MOD-4HS	High-speed fan tray for Catalyst 6504-E
WS-C6504E-S32-GE	Cisco 6504-E chassis with fan tray and Catalyst 6500 Supervisor Engine 32-8GE
WS-C6504E-S32-10GE	Cisco 6504-E chassis with fan tray and Catalyst 6500 Supervisor Engine 32-10GE
PWR-2700-AC/4	2700W AC power supply for Cisco Catalyst 6504-E
PWR-2700-DC/4	2700W DC power supply for Cisco Catalyst 6504-E

Part Number	Description
<b>Spare Units</b>	
WS-C6504-E	Cisco 6504-E chassis, mounting kit, and cable guide
PWR-2700-AC/4=	2700W AC power supply for Cisco Catalyst 6504-E
PWR-2700-DC/4=	2700W DC power supply for Cisco Catalyst 6504-E
<b>Power Cord Options</b>	
CAB-7513ACSA	• AC power cord (South Africa)
CAB-ACS-16	• AC power cord (Switzerland)
CAB-AC-2500W-US1	• Power cord, 250 VAC 16A, straight blade NEMA 6-20 plug, United States
CAB-AC-C6K-TWLK	• Power cord, 250 VAC 16A, twist lock NEMA L6-20 plug, United States
CAB-AC-2500W-EU	• Power cord, 250 VAC 16A, Europe
CAB-AC-2500W-INT	• Power cord, 250 VAC 16A, International
CAB-ACS-16	• AC power cord (Switzerland) 16A
FAN-MOD-4HS=	High-speed fan module for Cisco Catalyst 6504-E
KIT-MNTG-CG-4=	Mounting kit and cable guide for Cisco Catalyst 6504-E

## KEY FEATURES AND BENEFITS

### 2700W AC and DC Power Supply

The 2700W power supply offers the following features:

- Universal AC input (100–240 VAC, 50–60 Hz) for 2700W AC and wide DC input range (–48 ~–60VDC) for 2700W DC
- Compatible with full output in Cisco Catalyst 6504-E Chassis
- Redundant and hot swappable

Tables 3 through 4 list power and cable specifications for the 2700W power supply.

**Table 3.** Power Specifications

Description	Specifications
<b>Input Voltage Range and Frequency</b>	<ul style="list-style-type: none"> <li>• 100–240 VAC, 47–63 Hz (2700W AC)</li> <li>• –48 VDC to –60 VDC continuous (2700W DC)</li> </ul>
<b>Input Current</b>	<ul style="list-style-type: none"> <li>• 16A (2700W AC)</li> <li>• –37A per input at –48 VDC (2700W DC)</li> <li>• –29A per input at –60 VDC (2700W DC)</li> </ul>
<b>Input Frequency Range, Output Power</b>	<ul style="list-style-type: none"> <li>• 2700W if input is at 220 VAC (2700W AC)</li> <li>• 1350W if the input is at 110 VAC (2700W AC)</li> <li>• 2700W if two DC inputs are active (2700W DC)</li> <li>• 1350W if one DC input is active (2700W DC)</li> </ul>
<b>Output Holdup Time</b>	<ul style="list-style-type: none"> <li>• 20 ms minimum (2700W AC)</li> <li>• 8 ms minimum (2700W DC)</li> </ul>
<b>AC Power Supply Input Receptacles</b>	IEC 320-C19
<b>AC Power Cord Rating</b>	16A

**Table 4.** Product Specifications for 2700W Power Supply

Product	Specifications
<b>Chassis Compatibility</b>	Cisco Catalyst 6504-E
<b>Fan Tray Required</b>	High-speed fan
<b>Software Compatibility</b>	Cisco IOS Software Release: <ul style="list-style-type: none"> <li>• 12.2(18)SXE and later</li> </ul> Cisco Catalyst OS: <ul style="list-style-type: none"> <li>• 8.4.3</li> </ul>
<b>Physical Specifications</b>	(H x W x D): 4.25 x 17.0 x 4.5 in. Weight: 11 lb (5 kg)
<b>BTU</b>	<ul style="list-style-type: none"> <li>• ~6,150 BTUs per hour (at 1.8 kW) at 110 VAC or one DC input</li> <li>• ~12,000 BTUs per hour (at 3.5 kW) at 220 VAC or two DC inputs</li> </ul>
<b>Environmental Conditions</b>	<ul style="list-style-type: none"> <li>• Operating temperature: 32 to 104°F (0 to 40°C)</li> <li>• Storage temperature: -40 to 158°F (-40 to 70°C)</li> <li>• Relative humidity operating, noncondensing: 10 to 95%</li> <li>• Relative humidity nonoperating, noncondensing: 10 to 95%</li> <li>• MTBF: calculated 150,000 hr (MIL-217 and Bellcore TR-NWT-000332), demonstrated 300,000 hr</li> </ul>
<b>EMI and EMC Compliance</b>	<ul style="list-style-type: none"> <li>• FCC Part 15 (CFR 47) Class A</li> <li>• ICES-003 Class A</li> <li>• EN 55022 Class A</li> <li>• CISPR 22 Class A</li> <li>• AS/NZS 3548 Class A</li> <li>• VCCI Class A</li> <li>• EN 55024</li> <li>• EN300 386</li> <li>• EN 50082-1</li> <li>• EN 61000-3-2</li> <li>• EN 61000-3-3</li> <li>• EN 61000-6-1</li> </ul>
<b>Safety Compliance</b>	<ul style="list-style-type: none"> <li>• UL 60950</li> <li>• CAN/CSA-C22.2 NO. 60950</li> <li>• EN 60950</li> <li>• IEC 60950</li> </ul>
<b>LED Indicators</b>	<ul style="list-style-type: none"> <li>• 2 green "INPUT OK," illuminate when input voltage is 85 VAC or greater</li> <li>• 1 green "FAN OK," illuminates when the power supply fan is operating</li> <li>• 1 red "OUTPUT FAIL," normally is off but illuminates when power supply outputs are out of regulation limits</li> </ul>

**Table 5.** 2700W AC Power Supply Cable Specifications

Locale	Part Number	Cord Length	Plug Type Wall Appliance	Wall Plug Rating
North America (nonlocking) 200–240 VAC operation	CAB-AC-2500W-US1	14 ft (4.3m)	NEMA 6-20	250 VAC, 16A
North America (locking) 200–240 VAC operation	CAB-AC-C6K-TWLK	14 ft (4.3m)	NEMA L6-20	250 VAC, 16A
North America 100–120 VAC operation	CAB-7513AC	14 ft (4.3m)	NEMA 5-20	125 VAC, 20A
Continental Europe	CAB-AC-2500W-EU	14 ft (4.3m)	CEE 7/7	250 VAC, 16A
Japan	CAB-7513AC	14 ft (4.3m)	NEMA 5-20	125 VAC, 20A
	CAB-AC-2500W-US		NEMA 6-203	250 VAC, 16A
	CAB-AC-C6K-TWLK		NEMA L6-20	250 VAC, 16A
International	CAB-AC-2500W-INT	14 ft (4.3m)	IEC 309	250 VAC, 16A

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For more information about the Cisco Catalyst 6504-E Chassis, visit <http://www.cisco.com> or contact your local Cisco account representative.

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