

# Cisco Catalyst 6500 Series/Cisco 7600 Series Supervisor Engine 720-3BXL

The Cisco® Catalyst® 6500 Series/Cisco 7600 Series Supervisor Engine 720-3BXL (Sup 720-3BXL) is the third-generation supervisor engine for the Cisco Catalyst 6500 Series Switch and Cisco 7600 Series Router. It addresses the growing data-plane requirements of service provider and enterprise customers by delivering scalable, enhanced services such as hardware-accelerated IPv4, IPv6, and Multiprotocol Label Switching (MPLS). The Cisco Sup 720-3BXL integrates a high-capacity crossbar switching fabric that can deliver up to 40-Gbps capacity per slot for a total system capacity of 720 Gbps.

## Product Overview

The Cisco Sup 720-3BXL (Figure 1) integrates a high-performance 720-Gbps switch fabric with a new routing and forwarding engine into a single module. The integrated switch fabric provides up to 40-Gbps full-duplex capacity per slot, allowing it to support third-generation high-performance, high-density Gigabit Ethernet and 10-Gigabit Ethernet interfaces as well as all existing LAN, WAN, and services modules, including the widely deployed FlexWAN and optical services modules to address a broad range of WAN edge aggregation deployments from DS-0 through OC-48/STM-16.

The Cisco Sup 720-3BXL builds on the proven Cisco Express Forwarding architecture by supporting centralized forwarding (Cisco Express Forwarding) and distributed forwarding (distributed Cisco Express Forwarding) to provide a highly scalable and cost-effective platform.

The Cisco Sup 720-3BXL delivers a modular, resilient, scalable, and secure Layer 2 or Layer 3 solution by:

- Enabling advanced IP services such as MPLS, IPv6, and quality of service (QoS)
- Supporting high-performance, third-generation Ethernet interfaces
- Delivering predictable and scalable system performance up to a sustained 400 Mpps using distributed forwarding cards (DFCs)
- Scaling hardware-capable Forwarding Information Base (FIB) table entries to 1 million routes
- Supporting all three generations of Ethernet line cards, optical services modules, FlexWAN, and services modules for investment protection
- Delivering up to 40-Gbps full-duplex capacity per slot
- Delivering 200-Mpps hardware-based IPv6 using DFCs
- Providing for 256,000 NetFlow entries



Extensive feature support such as QoS mechanisms, hardware-based generic-routing-encapsulation (GRE) tunneling, and access control lists (ACLs) enable customers to build high-performance, feature-rich networks capable of offering services such as MPLS VPNs, metropolitan (metro) aggregation, and various WAN edge services.

Figure 1  
Cisco Sup 720-3BXL



### Key Features and Benefits

Table 1 Features and Benefits

Feature	Benefits
<b>Integrated 720-Gbps switch fabric</b>	<ul style="list-style-type: none"><li>• Integrated switch fabric saves up to 2 slots, allowing more slots for line cards</li><li>• 40 Gbps per slot supports high-density Gigabit Ethernet and 10 Gigabit Ethernet</li></ul>
<b>1 million routes for IPv4 FIB table</b>	<ul style="list-style-type: none"><li>• Scalability for supporting large routing tables</li></ul>
<b>MPLS features</b>	<ul style="list-style-type: none"><li>• Layer 2 and Layer 3 VPNs, ATM over MPLS (AToM), traffic engineering, resiliency</li></ul>
<b>Hardware-based IPv4 and IPv6 features</b>	<ul style="list-style-type: none"><li>• High performance and scalability</li></ul>
<b>ACLs, ACL counters, and CPU rate limiting</b>	<ul style="list-style-type: none"><li>• Security, denial-of-service (DoS) attack control, and enhanced statistics</li></ul>



## Product Specifications

Table 2 Product Specifications

<b>Chassis compatibility</b>	Cisco 7603 <sup>1</sup> Cisco 7606 <sup>1</sup> Cisco 7609 Cisco 7613 Cisco Catalyst 6503 <sup>1</sup> Cisco Catalyst 6506 <sup>1</sup> Cisco Catalyst 6509 Cisco Catalyst 6509-NEB <sup>1</sup> Cisco Catalyst 6509-NEB-A Cisco Catalyst 6513
<b>Slot requirements</b>	Occupies the switch fabric slots in the chassis: 3-slot chassis—slots 1 and 2 6-slot chassis—slots 5 and 6 9-slot chassis—slots 5 and 6 13-slot chassis—slots 7 and 8
<b>Software compatibility</b>	12.2(17a)SXA
<b>Memory</b>	1-GB DRAM route processor 1-GB DRAM switch processor 64-MB boot Flash memory (512 MB maximum)
<b>Options</b>	Removable Flash memory—128 MB, 256 MB, and 512 MB
<b>Connectivity</b>	2 Gigabit Ethernet ports, 1 Small Form-Factor Pluggable (SFP), 1 selectable SFP or 10/100/1000 RJ-45
<b>Reliability and availability</b>	Fast software upgrade Route processor redundancy + (RPR+) Online insertion and removal (OIR) Cisco Nonstop Forwarding (NSF) <sup>2</sup> Cisco Stateful Switchover (SSO) <sup>2</sup>
<b>Network management</b>	Cisco IOS <sup>®</sup> Software command-line interface CiscoWorks Application Suite, including Resource Manager Essentials (RME) and CiscoWorks; Cisco 7600 Internet Router Manager (Element Management System) Internet Solution Center (ISC)
<b>Physical specifications</b>	(H x W x D): 1.6 x 15.3 x 16.3 in. (4.0 x 37.9 x 40.3 cm)
<b>Power consumption</b>	AC—394 watts DC—315 watts Heat dissipation—1345 BTU
<b>Environmental conditions</b>	Operating temperature: 32 to 104 F (0 to 40 C) Storage temperature: -40 to 167 F (-40 to 75 C) Relative humidity: 10 to 90%, noncondensing Regulatory compliance



Table 2 Product Specifications (Continued)

<b>Compliance</b>	CE Markings <i>Safety</i> UL 60950 EN 60950 CSA-C22.2 No. 60950 IEC 60950 AS/NZS 3260 IEC 60825-1,-2 EN 60825 -1,-2 21CFR1040-10 TS001 <i>EMC</i> FCC Part 15 (CFR 47) Class A ICES-003 Class A EN 55022 Class A CISPR 22 Class A AS/NZS 3548 Class A VCCI Class A EN55024 ETS300 386 EN50082-1 EN61000-6-1
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1. Requires high-speed fan
2. Check software release for availability

### Ordering Information

Table 3 Ordering Information

Description	Product Number
Cisco Catalyst 6500 Series/Cisco 7600 Series Supervisor Engine 720 Fabric Multilayer Switch Feature Card 3 (MSFC3) and Policy Feature Card 3BXL (PFC3BXL)	WS-SUP720-3BXL
Cisco Catalyst 6500 Series/Cisco 7600 Series Supervisor Engine 720-3BXL Gigabit Ethernet SFP modular multimode fiber optics, LC connector SX transceiver	GLC-SX-MM=
Cisco Catalyst 6500 Series/Cisco 7600 Series Supervisor Engine 720-3BXL Gigabit Ethernet SFP modular single mode fiber optics, LC connector LX/LH transceiver	GLC-LH-SM=
Cisco Catalyst 6500 Series/Cisco 7600 Series Supervisor Engine 720-3BXL Compact Flash Memory Card, 128 MB	MEM-C6K-CPTFL128M
Cisco Catalyst 6500 Series/Cisco 7600 Series Supervisor Engine 720-3BXL Compact Flash Memory Card, 256 MB	MEM-C6K-CPTFL256M
Cisco Catalyst 6500 Series/Cisco 7600 Series Supervisor Engine 720-3BXL Compact Flash Memory Card, 512 MB	MEM-C6K-CPTFL512M

## Service and Support

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Whether the goal is speed to market, maximizing network availability, or enhancing customer satisfaction and retention, Cisco is committed to the success of its service provider customers.

## For More Information

For more information about Cisco service and support programs and benefits, go to:

[http://www.cisco.com/public/Support\\_root.shtml](http://www.cisco.com/public/Support_root.shtml)

For more information about the Cisco Catalyst 6500 Series Switch and the Cisco 7600 Series Router visit Cisco at:

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