

Cisco Network Convergence System 5500 Series: Fixed Chassis

Contents

Product overview	3
Cisco IOS XR Software overview	3
Software requirements	4
Specifications	4
Supported transceivers modules	8
Environment	8
Regulatory standards compliance	8
Ordering information	9
Warranty	18
Service and Support	18
Cisco Capital	18
For more information	18
Document history	19

Product overview

Based on the [Cisco Global Cloud Index](#), digitalization is projected to grow global data center and public/private cloud networks traffic more than 25 percent annually, resulting in a threefold increase by 2019. To help network providers meet these challenges, the Cisco® Network Convergence System 5500 Series is built with features such as high port densities, deep packet buffering, and forwarding hardware optimized for these types of deployments.

The Cisco NCS 5500 Series offers four fixed configuration chassis, the NCS 5501 (Figure 1), NCS 5501 SE (Figure 2), NCS 5502 and NCS 5502 SE (Figure 3). These systems provide functionality vital to both the Top of Rack (ToR) and spine or leaf roles common to modern spine-and-leaf architectures. Capabilities such as advanced packet classification, segment routing, ultra-wide ECMP, programmable network management and telemetry are added to the robust and mature features already present in Cisco IOS® XR Software Release 6.0.0.



Figure 1.
The Cisco NCS 5501 Chassis



Figure 2.
The Cisco NCS-5501-SE Chassis



Figure 3.
The Cisco NCS-5502 and NCS-5502-SE Chassis

Cisco IOS XR Software overview

The Cisco NCS 5500 Series fixed chassis is powered by industry leading carrier-class 64-bit version of Cisco IOS XR Software designed on operational efficiency, optimized utilization and service agility ([evolved programmable network](#)). Cisco IOS XR Software offers rich features such as iPXE boot, auto provisioning, native support for third-party application hosting, machine-to-machine interface, telemetry, and flexible software package delivery.

For a complete list of supported features, refer to [Cisco Feature Navigator](#).

Software requirements

The Cisco NCS 5500 Series fixed chassis support Cisco IOS XR Software Release 6.1.1 and later.

Specifications

Tables 1 through 8 list key specifications for the Cisco NCS 5500 Series fixed chassis.

Table 1. Features and Benefits of Cisco NCS 5500 Series Fixed Chassis (Cisco IOS XR Software 6.1.1 Release or Beyond)

Feature	Specification
Integrated Interface	1GE/10GE/25GE/40GE/100 Gigabit Ethernet support
Industry leading carrier-class Cisco IOS XR Software	<ul style="list-style-type: none"> Visibility and telemetry Machine-to-machine interface Application hosting Flexible platform and packaging Modularity Automation
Management ports	Provides easy access to system console
External USB port	Helps simplify image and file management
Embedded USB (eUSB) storage	Flash memory devices for storing software image, configuration, logging, and recovery
Power consumption	Ultra-low power per Gigabit Ethernet
Redundancy	<ul style="list-style-type: none"> Redundant fan tray Redundant AC or DC power supply

Table 2. Cisco NCS 5501 Fixed Chassis Specification

Feature	Specification				
Chassis PIDs	<ul style="list-style-type: none"> NCS-5501 NCS-5501-SE 				
Interfaces	<table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 50%;">NCS-5501:</td> <td>48 ports of 1GE/10GE 6 ports of 40GE/100GE</td> </tr> <tr> <td>NCS-5501-SE:</td> <td>40 ports of 1GE/10GE 4 ports of 40GE/100GE</td> </tr> </tbody> </table>	NCS-5501:	48 ports of 1GE/10GE 6 ports of 40GE/100GE	NCS-5501-SE:	40 ports of 1GE/10GE 4 ports of 40GE/100GE
NCS-5501:	48 ports of 1GE/10GE 6 ports of 40GE/100GE				
NCS-5501-SE:	40 ports of 1GE/10GE 4 ports of 40GE/100GE				
Integrated Route Processor	IOS-XR 64-bit software running on an 8 cores x86 CPU @ 2Ghz				
Management Ports	3x RJ45, one for console and two for management LAN ports				

Feature	Specification	
Flexible Forwarding Ports NCS-5501-SE	4x 100 Gigabit Ethernet with QSFP28 optics QSFP+ optics to support 40GE and 4x 10GE breakout options available 40x 10 Gigabit Ethernet with SFP+ or SFP optics to support 1GE speed	
NCS-5501	6x 100 Gigabit Ethernet with QSFP28 optics QSFP+ optics to support 40GE and 4x 10GE breakout options available 48x 10 Gigabit Ethernet with SFP+ or SFP optics to support 1GE speed	
Performance	Up to 800 Gbps of system throughput	
Route Scale	NCS-5501: Up to 1M FIB entries NCS-5501-SE: Up to 2M FIB entries	
Power and Cooling Features	2 hot-swappable power supplies providing 1+1 redundancy. Reversible airflow available (power supply PID determines airflow direction) 2 hot-swappable fan trays provide redundant system cooling	
Power Consumption Output power. For input power, divide by 0.91, which represents average supply efficiency.	NCS-5501	Typical: 240W at 25 degrees Celsius Maximum: 370W at 55 degrees Celsius
	NCS-5501-SE	Typical: 260W at 25 degrees Celsius Maximum: 420W at 55 degrees Celsius
Physical Specification	Height: 1RU 1.72 in (4.37 cm) Width: 17.4 in (44.20 cm) Depth: 21.7 in (55.12 cm) NCS5501 Weight: 22.8 lbs (10.34 kgs) NCS5501-SE Weight: 23.5 lbs (10.66 kgs)	

Table 3. Cisco NCS 5502 Fixed Chassis Specification

Feature	Specification	
Chassis PID	NCS-5502 NCS-5502-SE	
Flexible Forwarding Ports	NCS-5502	48 ports of 100GE/40GE/10GE via 4x10GE
	NCS-5502-SE	48 ports of 100GE/40GE/10GE via 4x10GE
Integrated Route Processor	IOS-XR 64-bit software running on a12 cores x86 CPU @ 1.6Ghz	
Management Ports	3x RJ45, one for console and two management LAN ports	
Flexible Forwarding Ports	48x 100 Gigabit Ethernet with QSFP28 or QSFP+ optics to support 100GE, 40GE, and 4x 10GE breakout options	

Feature	Specification	
Performance	Up to 4.8Tbps of system throughput	
Route Scale	NCS5502: Up to 1M FIB entries NCS5502-SE: Up to 2M FIB entries	
Power and cooling features	4 hot-swappable power supplies providing N+N redundancy Reversible airflow available (power supply PID determines airflow direction) 3 hot-swappable fan trays provide redundant system cooling	
Power Consumption Output power. For input power, divide by 0.91, which represents average supply efficiency.	NCS-5502	Typical: 1450W at 25 degrees Celsius Maximum: 2000W at 55 degrees Celsius
	NCS-5502-SE	Typical: 1850W at 25 degrees Celsius Maximum: 2400W at 55 degrees Celsius
Physical Specification	Height: 2RU 3.45 in. (8.73 cm) Width: 17.3 in. (43.94 cm) Depth: 30.0 in. (76.20 cm) NCS5502 Weight: 55.5 lbs (25.174 kgs) NCS5502-SE Weight: 52.5 lbs (23.813 kgs)	

Table 4. Software Feature Support on NCS 5500 Fixed Chassis in Cisco IOS XR Software 6.1.1 Release or Beyond

Description	Specification
Layer 2	<ul style="list-style-type: none"> • Layer 2 switch ports • IEEE 802.1Q VLAN encapsulation/Q-in-Q encapsulation • IEEE 802.1ad • Cisco Bundle Ethernet technology (up to 32 ports per Ethernet Bundle) • Link Aggregation Control Protocol (LACP): IEEE 802.3ad • Jumbo frames on all ports (up to 9216 bytes) • L2 ingress Access Control List (ACL) • L2 AC-AC cross-connect • Ethernet Flow Point (EFP) and VLAN trunks • Virtual Router Redundancy Protocol (VRRP)

Description	Specification
Layer 3	<ul style="list-style-type: none"> • IPv4 and IPv6 unicast • Layer 3 interfaces: physical and sub-interfaces • Routing protocols: static, Open Shortest Path First (OSPFv2), OSPFv3, Intermediate System to Intermediate System (ISIS), ISISv6, and Border Gateway Protocol (BGP) • 32-way Equal-Cost Multipath (ECMP) • L3 ingress and egress IPv4 ACL and IPv6 ACL • Bidirectional Forwarding Detection (BFD) • Cisco Bundle Ethernet technology (up to 32 ports per Ethernet Bundle) • Link Aggregation Control Protocol (LACP): IEEE 802.3ad • Jumbo frame support (up to 9216 bytes) • Hot Standby Router Protocol (HSRP)/Virtual Router Redundancy Protocol (VRRP) • Layer 3 Virtual Private Network (L3VPN)
MPLS	<ul style="list-style-type: none"> • Label switching • LDP • MPLS Traffic Engineering • Ethernet over MPLS (EoMPLS)
Segment Routing (SR)	<ul style="list-style-type: none"> • Segment routing-based transport • ISIS extensions to segment routing • OSPF extensions to segment routing • BGP egress peering engineering • Segment Routing Traffic Engineering (SR-TE) • Segment Routing Topology Independent Loop Free Alternatives (TI-LFA)
Quality of Service (QoS)	<ul style="list-style-type: none"> • Hierarchical QoS • Ingress classification based on Class of Service (L2), IP differentiated service code point (L3), IP ACL (L3/L4), IP precedence (type of service) (L3) • DSCP marking • 8 number of queues for user traffic • Support for priority queuing
Automation	<ul style="list-style-type: none"> • Zero-Touch Provisioning (ZTP), iPXE • Configuration management • Network Configuration Protocol (NETCONG/YANG model)
Security	<ul style="list-style-type: none"> • Provides comprehensive network security features, including ACLs; control-plane protection; management plane protection; routing authentications; Authentication, Authorization, and Accounting (AAA) and Terminal Access Controller Access-Control System Plus (TACACS+); Secure Shell (SSH) Protocol; SNMPv3; and RPL support • Layer 2 ingress ACLs • Layer 3 ingress ACLs
Management	<ul style="list-style-type: none"> • MIB, XML, JSON, GPB, and SNMP • MPLS OAM (label switched path [LSP] ping, LSP traceroute) • Ethernet OAM

Supported transceivers modules

Check the data sheet for Cisco NCS 5500 Series supported transceivers module.

Environment

Table 5. Environmental Properties for NCS 5500 Fixed systems

Property	Cisco NCS 5500 Series
Normal Operating Temperature	32 to 104° F (0 to 40° C)
Non-operating (storage) Temperature	-40 to 158° F (-40 to 70° C)
Operating Humidity	5% to 95% (noncondensing) Note: Not to exceed 0.024 kg water or dry air
Storage (relative) Humidity	5% to 95% at 40C per NEBS GR-63-Core Note: Not to exceed 0.024 kg water or dry air
Altitude	0 to 10,000 ft (0 to 3000m)
Power Inputs	Worldwide ranging AC (90-265V; 50-60 Hz) Worldwide ranging DC (-40V to -72V)
Air Flow	Front to back Back to front

Regulatory standards compliance

Table 6. Regulatory Standards Compliance: Safety and EMC

Specification	Description
Regulatory compliance	Products complies with CE Markings according to directives 2014/30/EU and 2014/35/EU
Network Equipment Building Standards (NEBS)	Designed to meet GR-63-CORE and GR-1089-CORE
Safety	<ul style="list-style-type: none">• UL 60950-1 Second Edition• CAN/CSA-C22.2 No. 60950-1 Second Edition• EN 60950-1 Second Edition• IEC 60950-1 Second Edition• AS/NZS 60950-1• GB4943

Specification	Description
EMC Standards	<ul style="list-style-type: none"> • 47CFR Part 15 (CFR 47) Class A • AS/NZS CISPR22 Class A • CISPR22 Class A • EN55022 Class A • ICES003 Class A • VCCI Class A • EN61000-3-2 • EN61000-3-3 • KN22 Class A • CNS13438 Class A
EMC Immunity	<ul style="list-style-type: none"> • EN55024 • CISPR24 • EN300386 • KN 61000-4 series
RoHS	The product is RoHS-6 compliant with exceptions for leaded-Ball Grid-Array (BGA) balls and lead press-fit connectors.

Additional information related to [NCS5500 regulatory compliance and safety standards](#).

Ordering information

Table 7. Ordering Information for NCS5501 and NCS-5501-SE

Part Type	Part Number	Description
Chassis	NCS-5501	NCS5501 Fixed 48x10G and 6x100G chassis
RTU	NCS-5501-LIC	NCS 5501 Right To Use License
Chassis	NCS-5501-SE	NCS5501 - 40x10G and 4x100G Scale Chassis
RTU	NCS-5501SE-LIC	NCS 5501 Scale Right To Use License
SW	XR-NC55-P-06.01	Cisco NCS 5500 IOS XR 6.1 Image
	XR-NC55-PK9-06.01	Cisco NCS 5500 IOS XR 6.1 PK9 Image
Fan Option	NCS-1RU-FAN-RV	NCS 5500 1RU Chassis Fan Tray Port-S Exhaust/Back-to-Front
	NCS-1RU-FAN-FW	NCS 5500 1RU Chassis Fan Tray Port-S Intake/Front-to-back

Part Type	Part Number	Description
Power Option	NCS-1100W-ACRV	NCS 5500 AC 1100W Power Supply Port-S Exhaust/Back-to-Front
	NCS-1100W-ACFW	NCS 5500 AC 1100W Power Supply Port-S Intake/Front-to-back
	NCS-1100W-DCRV	NCS 5500 DC 1100W Power Supply Port-S Exhaust/Back-to-Front
	NCS-950W-DCFW	NCS 5500 DC 950W Power Supply Port-S Intake/Front-to-back
Accessories Option	NCS-1RU-ACC-KIT	NCS 5500 Accessory Kit for 1RU Chassis
	NCS-1RU-NEBS-KIT	NCS 5500 NEBS Kit for 1RU Chassis - Includes NCS-1RU-ACC-KIT

Table 8. Ordering Information for Perpetual Software Licenses Available on NCS-5501

Part Number	Description
NC55P-ADVL3-5501T	NCS 5500 L3VPN Lic for NCS-5501
NC55P-ADVL3-100T	NCS 5500 L3VPN Lic for NCS 5500 Base Per 100G Bandwidth
NC55P-ADVL2-5501T	NCS 5500 L2VPN Lic for NCS-5501
NC55P-ADVL2-100T	NCS 5500 L2VPN Lic for NCS 5500 Base Per 100G Bandwidth
NC55P-CRAGR-5501T	NCS 5500 Core and Aggregation Lic for NCS-5501
NC55P-CRAGR-100T	NCS 5500 Core and Aggr Lic for NCS 5500 Base Per 100G BW
NC55P-PEER-5501T	NCS 5500 Peering Lic for NCS-5501
NC55P-PEER-100T	NCS 5500 Peering Lic for NCS 5500 Base Per 100G Bandwidth
NC55P-ADVDC-5501T	NCS 5500 Advance Data Center Lic for NCS-5501
NC55P-ADVDC-100T	NCS 5500 Adv Data Center Lic for NCS 5500 Base Per 100G BW
NC55P-BASIC-LSR	NCS 5500 Basic MPLS LSR License

Table 9. Ordering Information for Perpetual Software Licenses Available on NCS-5501-SE

Part Number	Description
NC55P-ADVL3-5501S	NCS 5500 L3VPN Lic for NCS-5501-SE
NC55P-ADVL3-100S	NCS 5500 L3VPN Lic for NCS 5500 SE Per 100G Bandwidth
NC55P-ADVL2-5501S	NCS 5500 L2VPN Lic for NCS-5501-SE
NC55P-ADVL2-100S	NCS 5500 L2VPN Lic for NCS 5500 SE Per 100G Bandwidth
NC55P-CRAGR-5501S	NCS 5500 Core and Aggregation Lic for NCS-5501-SE
NC55P-CRAGR-100S	NCS 5500 Core and Aggr Lic for NCS 5500 SE Per 100G BW
NC55P-PEER-5501S	NCS 5500 Peering Lic for NCS-5501-SE
NC55P-PEER-100S	NCS 5500 Peering Lic for NCS 5500 SE Per 100G Bandwidth
NC55P-ADVDC-5501S	NCS 5500 Advance Data Center Lic for NCS-5501-SE
NC55P-ADVDC-100S	NCS 5500 Adv Data Center Lic for NCS 5500 SE Per 100G BW
NC55P-BASIC-LSR	NCS 5500 Basic MPLS LSR License
NC55P-TIMING-F	NCS 5500 Timing and Mobility Lic for Fixed Chassis

Table 10. Ordering information – Flexible Consumption Model Software Licenses

Part number	Product description
ESS-100G-RTU-1	NCS 5500 Core and Aggregation Essentials SW RTU v1.0 100G
ADV-100G-RTU-1	NCS 5500 Core and Aggregation Advantage w/o Essentials SW RTU v1.0 100G
ADN-100G-RTU-1	NCS 5500 Core and Aggregation Advantage w/ Essentials SW RTU v1.0 100G
ESS-100G-SIA-3	NCS 5500 Core and Aggregation Essentials SIA per 100G 3-5 Year Subscription
ADV-100G-SIA-3	NCS 5500 Core and Aggregation Advantage w/o Essentials SIA per 100G 3-5 Year Subscription
ADN-100G-SIA-3	NCS 5500 Core and Aggregation Advantage w/ Essentials SIA per 100G 3-5 Year Subscription
ESS-100G-SIA-5	NCS 5500 Core and Aggregation Essentials SIA per 100G 5-10 Year Subscription
ADV-100G-SIA-5	NCS 5500 Core and Aggregation Advantage w/o Essentials SIA per 100G 5-10 Year Subscription
ADN-100G-SIA-5	NCS 5500 Core and Aggregation Advantage w/ Essentials SIA per 100G 5-10 Year Subscription

For details on the Cisco Network Convergence System 5500 Series Perpetual Software Licenses, refer to this [data sheet](#) and details on the flexible consumption model for the NCS 5500 Series are available in the [data sheet](#) for the IOS XR Software flexible consumption model.

Table 11. Ordering Information for Optics Supported on NCS-5501 and NCS-5501-SE Chassis

Type	Part Number	Description
1G	GLC-TE (1000BASE-T)	1000BASE-T standard, RJ45 copper
	GLC-SX-MMD	Note on NCS-5501-SE: GLC-TE (1000BASE-T) SFP module and 1G Auto Negotiation (Clause 37) with 1G optical SFP, is not supported on ports 8 to 15
	GLC-LH-SMD	1000BASE-SX short wavelength; MMF 1000BASE-LX/LH long-wavelength; SMF, 10km
10G	SFP-10G-SR	Cisco 10GBASE-SR SFP+ Module for MMF
	SFP-10G-SR-S	Cisco 10GBASE-SR SFP+ Module for MMF S-Class
	SFP-10G-SR-X	Cisco multirate 10GBASE-SR, 10GBASE-SW and OTU2e SFP+ Module for MMF, extended temperature range
	SFP-10G-LR	Cisco 10GBASE-LR SFP+ Module for SMF
	SFP-10G-LR-S	Cisco 10GBASE-LR SFP+ Module for SMF S-Class
	SFP-10G-LR-X	Cisco multirate 10GBASE-LR, 10GBASE-LW and OTU2e SFP+ Module for SMF, extended temperature range
40G	QSFP-40G-SR4	40GBASE-SR4 QSFP+ transceiver module for MMF, 4-lanes, 850-nm wavelength, 12-fiber MPO/MTP connector
	QSFP-40G-SR4-S	40GBASE-SR4 (IEEE 802.3ba Spec.) QSFP+ transceiver module for MMF, 4-lanes, 850-nm wavelength, 12-fiber MPO/MTP connector
	QSFP-40G-CSR4	40GBASE-CSR4 QSFP+ transceiver module for MMF, 4-lanes, 850-nm wavelength, MPO-12 connector, 300 m reach with OM3 fiber
	QSFP-40G-SR-BD	40GBASE-CSR4 QSFP+ transceiver module for MMF, 4-lanes, 850-nm wavelength, MPO-12 connector, 300 m reach with OM3 fiber
	QSFP-40G-LR4	40G QSFP Bi-Directional transceiver module, Duplex Multi-mode Fiber, LC Duplex connector, 100m reach with OM3 fiber
	QSFP-40G-LR4-S	40G QSFP Bi-Directional transceiver module, Duplex Multi-mode Fiber, LC Duplex connector, 100m reach with OM3 fiber
	WSP-Q40GLR4L	40GBASE-LR4 QSFP40G transceiver module for SMF, 4 CWDM lanes in 1310nm window Mixed inside module, Duplex LC connector, 10km, Multi-rate Support (40G Ethernet and OTU3)
	QSFP-4x10G-LR-S (40G-PSM4)	40GBASE-LR4 QSFP40G transceiver module for SMF, 4 CWDM lanes in 1310nm window Mixed inside module, Duplex LC connector, 10km
	QSFP-40G-ER4	40GBASE-LR4 QSFP40G transceiver module for SMF, 4 CWDM lanes in 1310nm window Mixed inside module, Duplex LC connector, 2km 4x10GBASE-LR/40G PSM4 transceiver 40GBASE-LR4 QSFP40G transceiver module for Single Mode Fiber, 4 CWDM lanes in 1310nm window Mixed inside module, Duplex LC connector, 40km

Type	Part Number	Description
100G	QSFP-100G-SR4-S	100GBASE SR4 QSFP Transceiver, MPO, 100m over OM4 MMF
	QSFP-100G-LR4-S	100GBASE LR4 QSFP Transceiver, LC, 10km over SMF
	QSFP-100G-CWDM4-S	100GBASE CWDM4 QSFP Transceiver, LC, 2km over SMF
	QSFP-100G-PSM4-S	100GBASE PSM4 QSFP Transceiver, MPO, 500m over SMF
	QSFP-100G-AOC1M	100GBASE QSFP Active Optical Cables 1 meter
	QSFP-100G-AOC2M	100GBASE QSFP Active Optical Cables 2 meter
	QSFP-100G-AOC3M	100GBASE QSFP Active Optical Cables 3 meter
	QSFP-100G-AOC5M	100GBASE QSFP Active Optical Cables 5 meter
	QSFP-100G-AOC7M	100GBASE QSFP Active Optical Cables 7 meter
	QSFP-100G-AOC10M	100GBASE QSFP Active Optical Cables 10 meter
	QSFP-100G-AOC15M	100GBASE QSFP Active Optical Cables 15 meter
	QSFP-100G-AOC20M	100GBASE QSFP Active Optical Cables 20 meter
	QSFP-100G-AOC25M	100GBASE QSFP Active Optical Cables 25 meter
	QSFP-100G-AOC30M	100GBASE QSFP Active Optical Cables 30 meter

Table 12. Ordering Information for Power Cables Supported on NCS-5501 and NCS-5501-SE Chassis

Part Number	Description
CAB-250V-10A-BR	Power Cord - 250V, 10A - Brazil
CAB-250V-10A-ID	AC Power Cord - 250V, 10A, India
CAB-250V-10A-IS	AC Power Cord - 250V, 10A - Israel
CAB-C13-C14-2M	Power Cord Jumper, C13-C14 Connectors, 2 Meter Length
PWR-CORD-ROK-A	Pwr Cord ROK 1.8m BlackYP-22K To YC-12
15454-M-CBL-R-JPN	AC power cable - Japan right exit
CAB-250V-10A-AR	AC Power Cord - 250V, 10A - Argentina
CAB-250V-10A-CN	AC Power Cord - 250V, 10A - PRC
CAB-9K10A-IT	Power Cord, 250VAC 10A CEI 23-16/VII Plug, Italy
CAB-AC-L620-C13	AC Power Cord, NEMA L6-20 - C13, 2M/6.5ft
CAB-C13-CBN	Cabinet Jumper Power Cord, 250 VAC 10A, C14-C13 Connectors
CAB-N5K6A-NA	Power Cord, 200/240V 6A North America
CAB-3P-JPN	AC Power Cord (Japan), C13, 3 Prong Plug, 2.3M
CAB-9K10A-SW	Power Cord, 250VAC 10A MP232 Plug, SWITZ
CAB-9K10A-UK	Power Cord, 250VAC 10A BS1363 Plug (13 A fuse), UK

Part Number	Description
CAB-ACTW	AC Power Cord (Taiwan), C13, EL 302, 2.3M
CAB-IND-10A	10A Power cable for India
15454-M-CBL-L-JPN	AC power cable - Japan left exit
CAB-9K10A-EU	Power Cord, 250VAC 10A CEE 7/7 Plug, EU
CAB-9K12A-NA	Power Cord, 125VAC 13A NEMA 5-15 Plug, North America
CAB-C13-C14-JMPR	Recessed receptacle AC power cord 27in
CAB-9K10A-AU	Power Cord, 250VAC 10A 3112 Plug, Australia

Table 13. Ordering Information for NCS-5502 and NCS-5502-SE

Part Type	Part Number	Description
Chassis	NCS-5502	NCS5502 Fixed 48x100G chassis
RTU	NCS-5502-LIC	NCS 5502 Right To Use License
Chassis	NCS-5502-SE	NCS5502 - 48x100G Scale Chassis
RTU	NCS-5502SE-LIC	NCS 5502 Scale Right To Use License
SW	XR-NC55-P-06.01	Cisco NCS 5500 IOS XR 6.1 Image
	XR-NC55-PK9-06.01	Cisco NCS 5500 IOS XR 6.1 PK9 Image
Fan Option	NC55-2RU-FAN-RV	NCS 5500 Fan Tray 2RU Chassis Port-S Exhaust/Back-to-Front
	NC55-2RU-FAN-FW	NCS 5500 Fan Tray 2RU Chassis Port-S Intake/Front-to-back
Power Option	NC55-2KW-DCRV	NCS5500 DC 2KW Power Supply Port-S Exhaust/Back-to-Front
	NC55-2KW-DCFV	NCS 5500 DC 2KW Power Supply Port-S Intake/Front-to-back
	NC55-2KW-ACRV	NCS 5500 AC 2KW Power Supply Port-S Exhaust/Back-to-Front
	NC55-2KW-ACFW	NCS 5500 AC 2KW Power Supply Port-S Intake/Front-to-back
Accessories	NCS-2RU-ACC-KIT	NCS 5500 Accessory Kit for 2RU Chassis
Filter Option	NCS-5502-FLTR-RV	NCS 5502 Filter Port-side exhaust/Back-to-Front
	NCS-5502-FLTR-FW	NCS 5502 Filter Port-Side intake/Front-to-back

Table 14. Ordering Information for Software Licenses Available on NCS-5502 Chassis

Part Number	Description
NC55P-ADVL3-5502T	NCS 5500 L3VPN Lic for NCS-5502
NC55P-ADVL3-100T	NCS 5500 L3VPN Lic for NCS 5500 Base Per 100G Bandwidth
NC55P-ADVL2-5502T	NCS 5500 L2VPN Lic for NCS-5502
NC55P-ADVL2-100T	NCS 5500 L2VPN Lic for NCS 5500 Base Per 100G Bandwidth
NC55P-CRAGR-5502T	NCS 5500 Core and Aggregation Lic for NCS-5502
NC55P-CRAGR-100T	NCS 5500 Core and Aggr Lic for NCS 5500 Base Per 100G BW
NC55P-PEER-5502T	NCS 5500 Peering Lic for NCS-5502
NC55P-PEER-100T	NCS 5500 Peering Lic for NCS 5500 Base Per 100G Bandwidth
NC55P-ADVDC-5502T	NCS 5500 Advance Data Center Lic for NCS-5502
NC55P-ADVDC-100T	NCS 5500 Adv Data Center Lic for NCS 5500 Base Per 100G BW
NC55P-BASIC-LSR	NCS 5500 Basic MPLS LSR License

Table 15. Ordering Information for Software Licenses Available NCS-5502-SE Chassis

Part Number	Description
NC55P-ADVL3-5502S	NCS 5500 L3VPN Lic for NCS-5502-SE
NC55P-ADVL3-100S	NCS 5500 L3VPN Lic for NCS 5500 SE Per 100G Bandwidth
NC55P-ADVL2-5502S	NCS 5500 L2VPN Lic for NCS-5502-SE
NC55P-ADVL2-100S	NCS 5500 L2VPN Lic for NCS 5500 SE Per 100G Bandwidth
NC55P-CRAGR-5502S	NCS 5500 Core and Aggregation Lic for NCS-5502-SE
NC55P-CRAGR-100S	NCS 5500 Core and Aggr Lic for NCS 5500 Base Per 100G BW
NC55P-PEER-5502S	NCS 5500 Peering Lic for NCS-5502-SE
NC55P-PEER-100S	NCS 5500 Peering Lic for NCS 5500 SE Per 100G Bandwidth
NC55P-ADVDC-5502S	NCS 5500 Advance Data Center Lic for NCS-5502-SE
NC55P-ADVDC-100S	NCS 5500 Adv Data Center Lic for NCS 5500 SE Per 100G BW
NC55P-BASIC-LSR	NCS 5500 Basic MPLS LSR License

Table 16. Ordering information – Flexible Consumption Model Software Licenses

Part number	Product description
ESS-100G-RTU-1	NCS 5500 Core and Aggregation Essential SW RTU per 100G
ADV-100G-RTU-1	NCS 5500 Core and Aggregation Advantage w/o Essentials SW RTU per 100G
ADN-100G-RTU-1	NCS 5500 Core and Aggregation Advantage w/ Essentials SW RTU per 100G
ESS-100G-SIA-3	NCS 5500 Core and Aggregation Essential SIA per 100G 3-5 Year Subscription
ADV-100G-SIA-3	NCS 5500 Core and Aggregation Advantage w/o Essentials SIA per 100G 3-5 Year Subscription
ADN-100G-SIA-3	NCS 5500 Core and Aggregation Advantage w/ Essentials SIA per 100G 3-5 Year Subscription
ESS-100G-SIA-5	NCS 5500 Core and Aggregation Essential SIA per 100G 5-10 Year Subscription
ADV-100G-SIA-5	NCS 5500 Core and Aggregation Advantage w/o Essentials SIA per 100G 5-10 Year Subscription
ADN-100G-SIA-5	NCS 5500 Core and Aggregation Advantage w/ Essentials SIA per 100G 5-10 Year Subscription

Table 17. Ordering Information for Optics Supported on NCS-5502 and NCS-5502-SE Chassis

Type	Part Number	Description
100G	QSFP-100G-SR4-S	100GBASE SR4 QSFP Transceiver, MPO, 100m over OM4 MMF
	QSFP-100G-LR4-S	100GBASE LR4 QSFP Transceiver, LC, 10km over SMF
	QSFP-100G-CWDM4-S	100GBASE CWDM4 QSFP Transceiver, LC, 2km over SMF
	QSFP-100G-PSM4-S	100GBASE PSM4 QSFP Transceiver, MPO, 500m over SMF
	QSFP-100G-AOC1M	100GBASE QSFP Active Optical Cables 1 meter
	QSFP-100G-AOC2M	100GBASE QSFP Active Optical Cables 2 meter
	QSFP-100G-AOC3M	100GBASE QSFP Active Optical Cables 3 meter
	QSFP-100G-AOC5M	100GBASE QSFP Active Optical Cables 5 meter
	QSFP-100G-AOC7M	100GBASE QSFP Active Optical Cables 7 meter
	QSFP-100G-AOC10M	100GBASE QSFP Active Optical Cables 10 meter
	QSFP-100G-AOC15M	100GBASE QSFP Active Optical Cables 15 meter
	QSFP-100G-AOC20M	100GBASE QSFP Active Optical Cables 20 meter
	QSFP-100G-AOC25M	100GBASE QSFP Active Optical Cables 25 meter
	QSFP-100G-AOC30M	100GBASE QSFP Active Optical Cables 30 meter

Type	Part Number	Description
40G	QSFP-40G-SR4	40GBASE-SR4 QSFP+ transceiver module for MMF, 4-lanes, 850-nm wavelength, 12-fiber MPO/MTP connector
	QSFP-40G-SR4-S	40GBASE-SR4 (IEEE 802.3ba Spec.) QSFP+ transceiver module for MMF, 4-lanes, 850-nm wavelength, 12-fiber MPO/MTP connector
	QSFP-40G-CSR4	40GBASE-CSR4 QSFP+ transceiver module for MMF, 4-lanes, 850-nm wavelength,
	QSFP-40G-SR-BD	MPO-12 connector, 300 m reach with OM3 fiber
	QSFP-40G-LR4	40G QSFP Bi-Directional transceiver module, Duplex Multi-mode Fiber, LC Duplex connector, 100m reach with OM3 fiber
	QSFP-40G-LR4-S	40GBASE-LR4 QSFP40G transceiver module for SMF, 4 CWDM lanes in 1310nm window Mixed inside module, Duplex LC connector, 10km, Multi-rate Support (40G Ethernet and OTU3)
	WSP-Q40GLR4L	40GBASE-LR4 QSFP40G transceiver module for SMF, 4 CWDM lanes in 1310nm window Mixed inside module, Duplex LC connector, 10km
	QSFP-4x10G-LR-S (40G-PSM4)	40GBASE-LR4 QSFP40G transceiver module for SMF, 4 CWDM lanes in 1310nm window Mixed inside module, Duplex LC connector, 2km
	QSFP-40G-ER4	4x10GBASE-LR/40G PSM4 transceiver 40GBASE-LR4 QSFP40G transceiver module for Single Mode Fiber, 4 CWDM lanes in 1310nm window Mixed inside module, Duplex LC connector, 40km

Table 18. Ordering Information for Power Cables Supported on NCS-5502 and NCS-5502-SE Chassis

Part Number	Description
CAB-250V-10A-BR	Power Cord - 250V, 10A - Brazil
CAB-250V-10A-ID	AC Power Cord - 250V, 10A, India
CAB-250V-10A-IS	AC Power Cord - 250V, 10A - Israel
CAB-C13-C14-2M	Power Cord Jumper, C13-C14 Connectors, 2 Meter Length
PWR-CORD-ROK-A	Pwr Cord ROK 1.8m BlackYP-22K To YC-12
15454-M-CBL-R-JPN	AC power cable - Japan right exit
CAB-250V-10A-AR	AC Power Cord - 250V, 10A - Argentina
CAB-250V-10A-CN	AC Power Cord - 250V, 10A - PRC
CAB-9K10A-IT	Power Cord, 250VAC 10A CEI 23-16/VII Plug, Italy
CAB-AC-L620-C13	AC Power Cord, NEMA L6-20 - C13, 2M/6.5ft
CAB-C13-CBN	Cabinet Jumper Power Cord, 250 VAC 10A, C14-C13 Connectors
CAB-N5K6A-NA	Power Cord, 200/240V 6A North America
CAB-3P-JPN	AC Power Cord (Japan), C13, 3 Prong Plug, 2.3M

Part Number	Description
CAB-9K10A-SW	Power Cord, 250VAC 10A MP232 Plug, SWITZ
CAB-9K10A-UK	Power Cord, 250VAC 10A BS1363 Plug (13 A fuse), UK
CAB-ACTW	AC Power Cord (Taiwan), C13, EL 302, 2.3M
CAB-IND-10A	10A Power cable for India
15454-M-CBL-L-JPN	AC power cable - Japan left exit
CAB-9K10A-EU	Power Cord, 250VAC 10A CEE 7/7 Plug, EU
CAB-9K12A-NA	Power Cord, 125VAC 13A NEMA 5-15 Plug, North America
CAB-C13-C14-JMPR	Recessed receptacle AC power cord 27in
CAB-9K10A-AU	Power Cord, 250VAC 10A 3112 Plug, Australia

Warranty

The Cisco NCS 5500 Series has a 1-year limited hardware warranty. The warranty includes hardware replacement with a 10-day turnaround from receipt of a Return Materials Authorization (RMA).

Service and Support

Cisco offers a wide range of services to help accelerate your success in deploying and optimizing the Cisco NCS 5500 Series. These innovative Cisco Services offerings are delivered through a unique combination of people, processes, tools, and partners, and they are focused on helping you increase operating efficiency and improve your data center network. Cisco Advanced Services uses an architecture-led approach to help you align your data center infrastructure with your business goals and achieve long-term value. Cisco SMARTnet™ Service helps you resolve mission-critical problems with direct access at any time to Cisco network experts and award-winning resources. With this service, you can take advantage of the Cisco Smart Call Home service, which offers proactive diagnostics and real-time alerts on your Cisco NCS 5500 Series. Spanning the entire network lifecycle, Cisco Services offerings help increase investment protection, optimize network operations, support migration operations, and strengthen your IT expertise.

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For more information

For more information about the Cisco NCS 5500 Series, visit [Cisco Network Convergence System 5500 Series.](#)

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