

# Cisco Network Convergence System 5500 Series: 55A2 Chassis

---

# Contents

Cisco IOS XR software overview	4
Specifications	4
Supported transceiver modules	8
Environment	9
Regulatory standards compliance	10
Ordering information	12
Products sustainability	16
Warranty	17
Service and Support	17
Cisco Capital	17
For more information	17
Document history	18

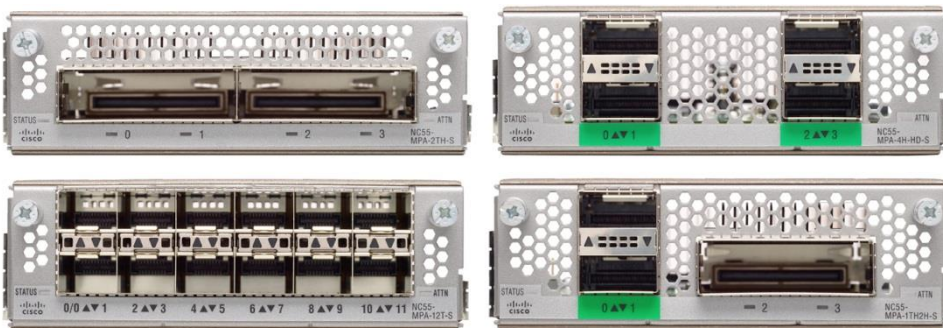
The Cisco Visual Network Index forecasts that global IP traffic will increase threefold by 2021 driven by both mobile and wireline traffic. Mobile networks are seeing a dramatic evolution as they prepare for the transition from LTE to 5G. The demands on the service provider network will not be limited to exponentially higher bandwidth at lower operating costs but will also require the capabilities to support new applications such as pervasive mobile broadband, massive IoT, tactile internet, smart city and virtual reality.

The Cisco Network Convergence System 55A2 Series Routers are designed for cost-effective delivery of these next generation services. These routers are high capacity, compact form factor, low power consumption devices providing flexibility with two modular bays. Modular Port Adaptors (MPA) and fixed ports on the chassis provides flexibility with options of different port types along with industry-leading MACSec encryption support. The Cisco NCS 55A2 Series Routers combine a comprehensive and scalable feature set of Layer 2 VPN (L2VPN) and Layer 3 VPN (L3VPN) services and a rich set of mobile features for a dense converged aggregation platform. 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.

The Cisco NCS 55A2 Series Router provides IP over Dense Wavelength-Division Multiplexing (DWDM) capability through MPA, collapsing network layers by tightly integrating DWDM interfaces with the routing platform, thereby helping customers to increase operational efficiency by simplifying management and accelerating service delivery. This IPoDWDM solution further reduces transport elements, while supporting advanced features dramatically reducing operating expenses and capital cost. MPA uses CFP2 Digital Coherent Optics (DCO) form factor transceivers.



**Figure 1.**  
The Cisco NCS-55A2-MOD Chassis



**Figure 2.**  
The Cisco NCS-55A2-MOD Modular Port Adaptors (MPA)

## Cisco IOS XR software overview

The Cisco NCS 55A2 Series is powered by industry leading carrier-class 64-bit version of Cisco IOS XR Software designed on operational efficiency, optimized utilization and service agility. Cisco IOS XR Software offers rich features such as iPXE boot, auto provisioning, machine-to-machine interface, telemetry, and flexible software package delivery. The Cisco NCS-55A2-MOD-S and NCS-55A2-MOD-HD-S support Cisco IOS XR Software Release 6.5.1 and later. The Cisco NCS 55A2-MOD-SE-S and NC55A2-MOD-SE-H-S support Cisco IOS XR Software Release 6.6.1 and later. For a complete list of supported features, refer to Cisco Feature Navigator.

## Specifications

Tables 1 through 8 list key specifications for the Cisco NCS 55A2 Series fixed chassis.

**Table 1.** Features and benefits of Cisco NCS 55A2 Series Fixed Chassis  
(Cisco IOS XR Software 6.5.1 Release or Beyond)

Feature	Specification
<b>Interface</b>	1/10/25/40/100/200 Gigabit Ethernet support using fixed and MPA ports
<b>MACsec encryption</b>	IEEE 802.1AE standards-based Layer 2 hop-by-hop encryption that provides data confidentiality and integrity for media access independent protocols
<b>Industry leading carrier-class Cisco IOS XR Software</b>	Visibility and telemetry Machine-to-machine interface Application hosting Flexible platform and packaging Modularity Automation
<b>MEF Certified</b>	Cisco NCS-55A2-MOD-HD-S is MEF 3.0 certified
<b>Management ports</b>	Provides easy access to system console
<b>External USB port</b>	Helps simplify image and file management
<b>Embedded USB (eUSB) storage</b>	Flash memory devices for storing software image, configuration, logging, and recovery
<b>Power consumption</b>	Ultra-low power per Gigabit Ethernet
<b>Redundancy</b>	Redundant fan tray Redundant AC or DC power supply

**Table 2.** Cisco NCS 55A2 Chassis specification

Feature	Specification
<b>Chassis PID</b>	<p>NCS-55A2-MOD-S: NCS 55A2 Fixed 24X10G + 16X25G and MPA Base Chassis</p> <p>NCS-55A2-MOD-HD-S: NCS 55A2 Fixed 24X10G + 16X25G and MPA Base Chassis, Temperature Hardened</p> <p>NCS-55A2-MOD-HX-S: NCS 55A2 Fixed 24X10G + 16X25G and MPA Base Chassis, Temperature Hardened with Conformal Coating</p> <p>NCS-55A2-MOD-SE-S: NCS 55A2 Fixed 24X10G + 16X25G and MPA Scale Chassis</p> <p>NC55A2-MOD-SE-H-S: NCS 55A2 Fixed 24X10G + 16X25G and MPA Scale Chassis, Temperature Hardened with Conformal Coating</p>
<b>Port configuration</b>	<p>Fixed - 24 port 1/10G and 16 port 1/10/25G</p> <p>Modular Port Adaptors (MPA) - Maximum 2 units of MPA</p>
<b>Modular Port Adaptor (MPA)</b>	<p>NC57-MPA-12L-S <b>(New)</b>: NCS 5700 12x50/25/10G SFP56 MPA, MACSec capable</p> <p>NC57-MPA-2D4H-S <b>(New)</b>: NCS 5700 4X QSFP-DD MPA</p> <p>NC55-MPA-12T-S: NCS 5500 12X10G MPA</p> <p>NC55-MPA-1TH2H-S: NCS 5500 1X200/100G CFP2 and 2X100G QSFP28 MPA</p> <p>NC55-MPA-2TH-S: NCS 5500 2X200/100G CFP2 MPA</p> <p>NC55-MPA-4H-S: NCS 5500 4X100G QSFP28 MPA</p> <p>NC55-MPA-4H-HD-S: NCS 5500 4X100G QSFP28 MPA, Temp Hardened</p> <p>NC55-MPA-4H-HX-S: NCS 5500 4X100G QSFP28 MPA, Temp Hardened, Conformal Coating</p> <p>NC55-MPA-2TH-HX-S: NCS 5500 2X200/100G CFP2 MPA, Temp Hardened, Conformal Coating</p>
<b>Integrated Route Processor</b>	<p>NCS-55A2-MOD-S: IOS-XR 64-bit software running on 6 core CPU @ 2Ghz</p> <p>NCS-55A2-MOD-SE-S, NC55A2-MOD-SE-H-S: IOS-XR 64-bit software running on 8 core CPU @ 2Ghz</p>
<b>System Memory</b>	32GB
<b>Solid-State Disk (SSD) drive</b>	128GB
<b>Management Ports</b>	1x RJ45, 1 for console and 1 for management LAN port
<b>Performance</b>	Up to 900 Gbps of system throughput
<b>Route Scale</b>	<p>Base Chassis: NCS-55A2-MOD-S, NCS-55A2-MOD-HD-S, NCS-55A2-MOD-HX-S: Upto 1M FIB entries</p> <p>Scale Chassis: NCS-55A2-MOD-SE-S, NC55A2-MOD-SE-H-S: Upto 4M FIB entries</p>
<b>Timing ports</b>	<p>Internal GNSS module with GPS</p> <p>1PPS in/out, 10Mhz in/out, ToD</p>

Feature	Specification
<b>Power and Cooling</b>	2 hot-swappable power supplies provide 1+1 redundancy Front to back airflow 8 hot-swappable fan provide redundant system cooling
<b>Power Consumption of base chassis (NCS-55A2-MOD-S)</b>	Typical: 270W Maximum: 370W
<b>Power Consumption of base chassis (NCS-55A2-MOD-HD-S, NCS-55A2-MOD-HX-S)</b>	Typical: 300W Maximum: 400W
<b>Power Consumption of base chassis (NCS-55A2-MOD-SE-S)</b>	Typical: 320W Maximum: 440W
<b>Power Consumption of base chassis (NC55A2-MOD-SE-H-S)</b>	Typical: 350W Maximum: 470W
<b>Power consumption of MPA</b>	<b>2 ports of 200/100G CFP2 MPA (NC55-MPA-2TH-S)</b> Typical: 75 watts Maximum: 100 watts <b>1 ports of 200/100G CFP2 and 2 ports of QSFP28/QSFP+ MPA (NC55-MPA-1TH2H-S)</b> Typical: 60 watts Maximum: 80 watts <b>12 port of 10G MPA (NC55-MPA-12T-S)</b> Typical: 50 watts Maximum: 75 watts <b>4 port of QSFP28/QSFP+ MPA (NC55-MPA-4H-S)</b> Typical: 50 watts Maximum: 75 watts
<b>Physical Specification of chassis</b>	Width - 440mm Height - 88mm Depth - 280mm Weight - 20.5 lbs (including 2x PSUs)
<b>Physical Specification of MPA</b>	Width - 110.69 mm Height - 34.36mm Depth - 174.32 mm Weight - 0.8 lbs

For power consumption and physical specification of NC57-MPA-12L-S and NC57-MPA-2D4H-S, please refer to [NCS 5700 series MPA datasheet](#).

**Table 3.** Software feature Support on NCS 55A2 in Cisco IOS XR 6.5.1 Release or Beyond

Description	Specification
<p><b>Layer 2</b></p>	<p>Layer 2 switch ports</p> <p>IEEE 802.1Q VLAN encapsulation/Q-in-Q encapsulation</p> <p>IEEE 802.1ad</p> <p>Cisco Bundle Ethernet technology (up to 32 ports per Ethernet Bundle)</p> <p>Link Aggregation Control Protocol (LACP): IEEE 802.3ad</p> <p>Jumbo frames on all ports (up to 9216 bytes)</p> <p>L2 ingress Access Control List (ACL)</p> <p>L2 AC-AC cross-connect</p> <p>Ethernet Flow Point (EFP) and VLAN trunks</p> <p>Virtual Router Redundancy Protocol (VRRP)</p>
<p><b>Layer 3</b></p>	<p>IPv4 and IPv6 unicast</p> <p>Layer 3 interfaces: physical and sub-interfaces</p> <p>Routing protocols: static, Open Shortest Path First (OSPFv2), OSPFv3, Intermediate System to Intermediate System (ISIS), ISISv6, and Border Gateway Protocol (BGP)</p> <p>32-way Equal-Cost Multipath (ECMP)</p> <p>L3 ingress and egress IPv4 ACL and IPv6 ACL</p> <p>Bidirectional Forwarding Detection (BFD)</p> <p>Cisco Bundle Ethernet technology (up to 32 ports per Ethernet Bundle)</p> <p>Link Aggregation Control Protocol (LACP): IEEE 802.3ad</p> <p>Jumbo frame support (up to 9216 bytes)</p> <p>Virtual Router Redundancy Protocol (VRRP)</p> <p>Layer 3 Virtual Private Network (L3VPN)</p>
<p><b>MPLS</b></p>	<p>Label switching</p> <p>LDP</p> <p>MPLS Traffic Engineering</p> <p>Ethernet over MPLS (EoMPLS)</p>
<p><b>Segment Routing (SR)</b></p>	<p>Segment routing-based transport</p> <p>ISIS extensions to segment routing</p> <p>OSPF extensions to segment routing</p> <p>BGP egress peering engineering</p> <p>Segment Routing Traffic Engineering (SR-TE)</p> <p>Segment Routing Topology Independent Loop Free Alternatives (TI-LFA)</p>

Description	Specification
<b>Multicast</b>	IPv4, IPv6 PIM-SM, PIM-SSM IGMPv3, MLDv2 PIM-ECMP mLDP P2MP-TE
<b>Quality of Service (QoS)</b>	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
<b>Timing</b>	SyncE, G.8265.1, G.8275.1, G.8275.2 G.8273.2
<b>Automation</b>	Zero-Touch Provisioning (ZTP), iPXE Configuration management Network Configuration Protocol (NETCONG/YANG model)
<b>Security</b>	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
<b>Management</b>	MIB, XML, JSON, GPB, and SNMP MPLS OAM (Label Switched Path [LSP] ping, LSP traceroute) Ethernet OAM

## Supported transceiver modules

Check the Cisco NCS 5500 Series supported transceiver modules matrix: <https://tmgmatrix.cisco.com>

Please note, 1G Auto Negotiation is not supported on the 16 port of 1/10/25G.



## Environment

**Table 4.** Environmental properties for NCS-55A2-MOD-HD-S, NCS-55A2-MOD-HX-S and NC55A2-MOD-SE-H-S

Property	Specification
<b>Normal Operating Temperature</b>	Industrial Temperature -40C to +70C (1000 feet), +65C (6000 feet), +55C (13,000 feet)
<b>Non-operating (storage) Temperature</b>	-40 to 158°F (-40 to 70°C)
<b>Operating Humidity</b>	5% to 95% (noncondensing)
<b>Storage (relative) Humidity</b>	5% to 95% at 40C per NEBS GR-63-Core
<b>Outside Plant</b>	<p>For an outside plant installation, it is required that the router be protected against airborne contaminants, dust, moisture, insects, pests, corrosive gases, polluted air, or other reactive elements present in the outside air. To achieve this level of protection, it is recommended that the unit be installed in a fully sealed enclosure. Examples of such cabinets include IP65 cabinets with heat exchanger complying with Telecordia GR487.</p> <p>Refer guidelines in the Hardware Installation Guide for further details.</p>
<b>Altitude</b>	0 to 13,000 ft
<b>Power Inputs</b>	<p>Worldwide ranging AC (90-265V; 50-60 Hz)</p> <p>Worldwide ranging DC (-40V to -72V)</p>
<b>Air Flow</b>	Front to back

**Table 5.** Environmental properties for NCS-55A2-MOD-S and NCS-55A2-MOD-SE-S

Property	Specification
<b>Normal Operating Temperature</b>	0 to +55C (6,000 feet), +45C (13,000 feet)
<b>Non-operating (storage) Temperature</b>	-40 to 158°F (-40 to 70°C)
<b>Operating Humidity</b>	5% to 95% (noncondensing)
<b>Storage (relative) Humidity</b>	5% to 95% at 40C per NEBS GR-63-Core
<b>Altitude</b>	0 to 13,000 ft
<b>Power Inputs</b>	<p>Worldwide ranging AC (90-265V; 50-60 Hz)</p> <p>Worldwide ranging DC (-40V to -72V)</p>
<b>Air Flow</b>	Front to back

## Regulatory standards compliance

**Table 6.** Regulatory standards compliance: Safety and EMC for NCS-55A2-MOD-S, NCS-55A2-MOD-SE-S

Specification	Description
<b>Regulatory compliance</b>	Products should comply with CE Markings according to directives 2004/108/EC and 2006/95/EC.
<b>Network Equipment Building Standards (NEBS)</b>	GR-63-CORE GR-1089-CORE
<b>Safety</b>	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
<b>EMC Standards</b>	47CFR Part 15 (CFR 47) Class A CISPR32 Class A EN55032 Class A EN 300 386 Class A ICES-003 Class A TCVN 7189 Class A CNS13438 Class A VCCI Class A EN61000-3-2 EN61000-3-3 KN32 Class A
<b>EMC Immunity</b>	EN55024 CISPR24 EN300386 KN35 TCVN 7317
<b>RoHS</b>	The product is RoHS-6 compliant with exceptions for leaded-Ball Grid-Array (BGA) balls and lead press-fit connectors.

**Table 7.** Regulatory standards compliance: Safety and EMC for NCS-55A2-MOD-HD-S, NCS-55A2-MOD-HX-S, NC55A2-MOD-SE-H-S

Specification	Description
<b>Regulatory compliance</b>	Products should comply with CE Markings according to directives 2004/108/EC and 2006/95/EC.
<b>Network Equipment Building Standards (NEBS)</b>	GR-63-CORE GR-1089-CORE GR-3108-CORE Class 2
<b>Safety</b>	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
<b>EMC Standards</b>	47CFR Part 15 (CFR 47) Class A CISPR32 Class A EN55032 Class A EN 300 386 Class A ICES-003 Class A TCVN 7189 Class A CNS13438 Class A VCCI Class A EN61000-3-2 EN61000-3-3 KN32 Class A EN 50121-3-2 EN50155 IEC 62236-3-2 IEC 60571 EN 50121-4 IEC 62236-4

Specification	Description
EMC Immunity	EN55024 CISPR24 EN300386 KN35 TCVN 7317 EN 61000-6-1 EN50121-3-2 EN50155 IEC 62236-3-2 IEC 60571 EN50121-4 IEC 62236-4 CISPR35 EN61000-6-2 EN61131-2 EN61326-1
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 [NCS55A2 regulatory compliance and safety standards](#).

## Ordering information

**Table 8.** Ordering information - Flexible Consumption Model Hardware

Part number	Description
NCS-55A2-MOD-SYS	NCS 55A2 Fixed 24X10G + 16X25G and MPA Chassis
NCS-55A2-MODH-SYS	NCS 55A2 Fixed 24X10G + 16X25G and MPA Chassis, Temperature Hardened
NCS-55A2-MODX-SYS	NCS 55A2 Fixed 24X10G + 16X25G and MPA Chassis, Temperature Hardened with Conformal Coating
NCS-55A2-MODS-SYS	NCS 55A2 Fixed 24X10G + 16X25G and MPA Scale Chassis
NCS-55A2MODSH-SYS	NCS 55A2 Fixed 24X10G + 16X25G and MPA Scale Chassis, Temperature Hardened with Conformal Coating
NC57-MPA-12L-S-FC	NCS 5700 12x50/25/10G SFP56 MPA, MACSec Capable
NC57-MPA-2D4H-FC	NCS 5500/5700 2X400G or 4X200G QSFP-DD MPA
NC55-MPA-2TH-SFC	NCS 5500 2X200G CFP2 MPA
NC55-MPA-2TH-HXFC	NCS 5500 2X200G CFP2 MPA Temp hardened MPA with Conformal Coating

Part number	Description
NC55-MPA-1TH2H-FC	NCS 5500 1X200G CFP2 + 2X100G QSFP28 MPA
NC55-MPA-12T-S-FC	NCS 5500 12X10G MPA
NC55-MPA-4H-S-FC	NCS 5500 4X100G QSFP28 MPA
NC55-MPA-4H-HD-FC	NCS 5500 4X100G QSFP28 MPA, Temperature Hardened
NC55-MPA-4H-HX-FC	NCS 5500 4X100G QSFP28 Temp hardened MPA with Conformal Coating

**Table 9.** Ordering information - Flexible Consumption Model Software Licenses

Part number	Description
ESS-100G-RTU-1	NCS 5500 Core and Aggregation 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
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
ADN-100G-SIA-5	NCS 5500 Core and Aggregation Advantage w/ Essentials SIA per 100G 5-10 Year Subscription

**Table 10.** Ordering information - Perpetual Model

Part Number	Description
<b>Chassis and MPA</b>	
NC55A2-MOD-S	NCS 55A2 Fixed 24X10G + 16X25G and MPA Chassis
NC55A2-MOD-HD-S	NCS 55A2 Fixed 24X10G + 16X25G and MPA Chassis, Temperature Hardened
NC55A2-MOD-HX-S	NCS 55A2 Fixed 24X10G + 16X25G and MPA Chassis, Temperature Hardened with Conformal Coating
NC55A2-MOD-SE-S	NCS 55A2 Fixed 24X10G + 16X25G and MPA Scale Chassis
NC55A2-MOD-SE-H-S	NCS 55A2 Fixed 24X10G + 16X25G and MPA Scale Chassis, Temperature Hardened with Conformal Coating
NC57-MPA-12L-S	NCS 5700 12x50/25/10G SFP56 MPA, MACSec Capable
NC57-MPA-2D4H-S	NCS 5500/5700 2X400G or 4X200G QSFP-DD MPA
NC55-MPA-2TH-S	NCS 5500 2X200G CFP2 MPA
NC55-MPA-1TH2H-S	NCS 5500 1X200G CFP2 + 2X100G QSFP28 MPA

Part Number	Description
NC55-MPA-12T-S	NCS 5500 12X10G MPA
NC55-MPA-4H-S	NCS 5500 4X100G QSFP28 MPA
NC55-MPA-4H-HD-S	NCS 5500 4X100G QSFP28 MPA, Temperature Hardened
NC55-MPA-4H-HX-S	NCS 5500 4X100G QSFP28 Temp hardened MPA with Conformal Coating
NC55-MPA-2TH-HX-S	NCS 5500 2X200G CFP2 MPA Temp hardened MPA with Conformal Coating
<b>Software</b>	
XR-NC55-P-07.00	Cisco IOS XR IP/MPLS Core Software
XR-NC55-PK9-07.00	Cisco IOS XR IP/MPLS Core Software 3DES
XR-NC55-P-07.01	Cisco IOS XR IP/MPLS Core Software
XR-NC55-PK9-07.01	Cisco IOS XR IP/MPLS Core Software 3DES
XR-NC55-P-07.02	Cisco IOS XR IP/MPLS Core Software
XR-NC55-PK9-07.02	Cisco IOS XR IP/MPLS Core Software 3DES
XR-NC55-P-07.03	Cisco IOS XR IP/MPLS Core Software
XR-NC55-PK9-07.03	Cisco IOS XR IP/MPLS Core Software 3DES
XR-NC55-P-07.04	Cisco IOS XR IP/MPLS Core Software
XR-NC55-PK9-07.04	Cisco IOS XR IP/MPLS Core Software 3DES
<b>Fans and Accessories</b>	
NC55-1200W-ACFW	NCS 5500 AC 1200W Power Supply Port-S Intake / Front-to-back
NC55-930W-DCFW	NCS 5500 DC 930W Power Supply Port-S Intake / Front-to-back
NC55-900W-ACFW-HD	NCS 5500 AC 900W Power Supply Port-S Intake / Front-to-back
NC55-900W-DCFW-HD	NCS 5500 DC 900W Power Supply Port-S Intake / Front-to-back
NC55-A2-FAN-FW	NCS 5500 Fan Tray 1RU Chassis Port-S Intake / Front-to-back Port-Side intake
NC55-A2-FAN-L-FW	NCS 5500 Latch type Fan Tray 1RU Chassis Port-S Intake / Front-to-back Port-Side intake
NC55-2RU-ACC-KIT	NCS 55A2 Accessory Kit for 2RU Chassis
NC55-2RU-ACCX-KIT	NCS 55A2 Accessory Kit for 2RU Chassis, Conformal Coated
NCS-55A2-FLTR-FW	NCS 55A2 Air Filter kit

Part Number	Description
<b>Licenses</b>	
<b>NC55P-BNDL-A2MDT</b>	NCS 5500 SW 4 x Bundle Lic for NCS-55A2-MOD-S (base chassis only/fixed ports)
<b>NC55P-ADVL3-A2MDT</b>	NCS 5500 L3VPN Lic for NCS-55A2-MOD-S (base chassis only/fixed ports)
<b>NC55P-ADVL2-A2MDT</b>	NCS 5500 L2VPN Lic for NCS-55A2-MOD-S (base chassis only/fixed ports)
<b>NC55P-CRAGR-A2MDT</b>	NCS 5500 Core and Aggregation Lic for NCS-55A2-MOD-S (base chassis only/fixed ports)
<b>NC55P-PEER-A2MDT</b>	NCS 5500 Peering Lic for NCS-55A2-MOD-S (base chassis only/fixed ports)
<b>NC55P-ADVDC-A2MDT</b>	NCS 5500 Advance Data Center Lic for NCS-55A2-MOD-S (base chassis only/fixed ports)
<b>NC55P-MSEC-55A2</b>	NCS 5500 MACsec Lic for NCS 55A2 fixed ports only (16)
<b>NC55P-TIMING-F</b>	NCS 5500 Timing and Mobility Lic for Fixed Chassis
<b>NC55P-BDL-100T</b>	NCS 5500 SW 4 x License Bundle for NCS 5500 Base Per 100G BW
<b>NC55P-ADVL3-100T</b>	NCS 5500 L3VPN Lic for NCS 5500 Base Per 100G Bandwidth
<b>NC55P-ADVL2-100T</b>	NCS 5500 L2VPN Lic for NCS 5500 Base Per 100G Bandwidth
<b>NC55P-CRAGR-100T</b>	NCS 5500 Core and Aggr Lic for NCS 5500 Base Per 100G BW
<b>NC55P-PEER-100T</b>	NCS 5500 Peering Lic for NCS 5500 Base Per 100G Bandwidth
<b>NC55P-ADVDC-100T</b>	NCS 5500 Adv Data Center Lic for NCS 5500 Base Per 100G BW
<b>NC55P-BNDL-A2MDS</b>	NCS 5500 SW 4 x Bundle Lic for NCS-55A2-MOD-SE-S (base chassis only/fixed ports)
<b>NC55P-ADVL3-A2MDS</b>	NCS 5500 L3VPN Lic for NCS-55A2-MOD-SE-S (base chassis only/fixed ports)
<b>NC55P-ADVL2-A2MDS</b>	NCS 5500 L2VPN Lic for NCS-55A2-MOD-SE-S (base chassis only/fixed ports)
<b>NC55P-CRAGR-A2MDS</b>	NCS 5500 Core and Aggregation Lic for NCS-55A2-MOD-SE-S (base chassis only/fixed ports)
<b>NC55P-PEER-A2MDS</b>	NCS 5500 Peering Lic for NCS-55A2-MOD-SE-S (base chassis only/fixed ports)
<b>NC55P-ADVDC-A2MDS</b>	NCS 5500 Advance Data Center Lic for NCS-55A2-MOD-SE-S (base chassis only/fixed ports)
<b>NC55P-BDL-100S</b>	NCS 5500 SW 4 x License Bundle for NCS 5500 Scale Per 100G BW
<b>NC55P-ADVL3-100S</b>	NCS 5500 L3VPN Lic for NCS 5500 Scale Per 100G Bandwidth
<b>NC55P-ADVL2-100S</b>	NCS 5500 L2VPN Lic for NCS 5500 Scale Per 100G Bandwidth
<b>NC55P-CRAGR-100S</b>	NCS 5500 Core and Aggr Lic for NCS 5500 Scale Per 100G BW

Part Number	Description
NC55P-PEER-100S	NCS 5500 Peering Lic for NCS 5500 Scale Per 100G Bandwidth
NC55P-ADVDC-100S	NCS 5500 Adv Data Center Lic for NCS 5500 Scale Per 100G BW
NC55P-MSEC-100T	NCS 5500 MACsec Lic for NCS 5500 Base Per 100G BW

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.

## Products sustainability

**Table 11.** Cisco environmental sustainability information

Sustainability Topic	Reference		
General	Information on product-material-content laws and regulations	<a href="#">Materials</a>	
	Information on electronic waste laws and regulations, including our products, batteries and packaging	<a href="#">WEEE Compliance</a>	
	Information on product takeback and resuse program	<a href="#">Cisco Takeback and Reuse Program</a>	
	Sustainability Inquiries	Contact: <a href="mailto:csr_inquiries@cisco.com">csr_inquiries@cisco.com</a>	
	Countries and Regions Supported	<a href="#">Table 6</a> and <a href="#">Table 7</a>	
	Predicted MTBF of Chassis (at 40°C)	NCS-55A2-MOD-S	255,590 hours
		NCS-55A2-MOD-HD-S	226,770 hours
		NCS-55A2-MOD-HX-S	221,010 hours
		NCS-55A2-MOD-SE-S	236,200 hours
		NC55A2-MOD-SE-H-S	214,920 hours
	Predicted MTBF of MPA (at 40°C)	NC55-MPA-4H-S	3,343,850 hours
		NC55-MPA-4H-HX-S	3,392,930 hours
		NC55-MPA-4H-HD-S	3,392,970 hours
NC55-MPA-2TH-S		3,332,150 hours	
NC55-MPA-2TH-HX-S		3,380,920 hours	
NC55-MPA-1TH2H-S		3,329,000 hours	
NC55-MPA-12T-S		2,587,960 hours	



Sustainability Topic		Reference
Power	Power consumption	<a href="#">Table 2: Cisco NCS 55A2 Chassis specification</a>
Material	Product packaging weight and materials	Contact: <a href="mailto:environment@cisco.com">environment@cisco.com</a>
	Weight	<a href="#">Table 2: Cisco NCS 55A2 Chassis specification</a>

## Warranty

The Cisco NCS 55A2 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 55A2 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 55A2 Series. Spanning the entire network lifecycle, Cisco Services offerings help increase investment protection, optimize network operations, support migration operations, and strengthen your IT expertise.

## Cisco Capital

### Flexible payment solutions to help you achieve your objectives

Cisco Capital makes it easier to get the right technology to achieve your objectives, enable business transformation and help you stay competitive. We can help you reduce the total cost of ownership, conserve capital, and accelerate growth. In more than 100 countries, our flexible payment solutions can help you acquire hardware, software, services and complementary third-party equipment in easy, predictable payments. [Learn more.](#)

## For more information

For more information about the Cisco NCS 55A2 Series, <https://www.cisco.com>.

## Document history

**Table 12.** Document history

New or Revised Topic	Described In	Date
Added new MPA: NC57-MPA-2D4H-S	<a href="#">Table 2</a>	Oct. 28, 2021
Updated link to supported transceiver modules	Supported transceiver modules	Oct. 28, 2021
Updated ordering information	<a href="#">Table 8</a> , <a href="#">Table 9</a> , <a href="#">Table 10</a>	Oct. 28, 2021
Added Product Sustainability information	<a href="#">Table 11</a>	Oct. 28, 2021

**Americas Headquarters**  
Cisco Systems, Inc.  
San Jose, CA

**Asia Pacific Headquarters**  
Cisco Systems (USA) Pte. Ltd.  
Singapore

**Europe Headquarters**  
Cisco Systems International BV Amsterdam,  
The Netherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at <https://www.cisco.com/go/offices>.

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: <https://www.cisco.com/go/trademarks>. Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)