

Cisco Nexus 93180YC-FX3 (N9K-C93180YC-FX3)

Cisco Nexus 93180YC-FX3 - Switch - L3 - Managed - 48 x 1/10/25 Gigabit SFP+ + 6 x 40/100 Gigabit QSFP28 - rack-mountable



The Cisco Nexus 93180YC-FX3 Switch is a 1RU switch that supports 3.6 Tbps of bandwidth and 1.2 bpps. The 48 downlink ports on the 93180YC-FX3 are capable of supporting 1-, 10-, or 25-Gbps Ethernet, offering deployment flexibility and investment protection. The 6 uplink ports can be configured as 40 and 100-Gbps Ethernet, offering flexible migration options. Cisco Nexus 93180YC-FX3 switch supports standard PTP Telecom profiles with SyncE and PTP boundary clock functionality for Telco data center edge environments.

Key Selling Points

- 3.6 Tbps bandwidth for efficient data traffic handling
- 48 x 1/10/25GBase-X and 6 x 40/100GBase-X ports for broad connectivity
- Access Control List and MACsec for robust network security
- Supports multiple management protocols for versatile administration
- N+1 power redundancy for reliable operation

Product Features

- Robust performance**  
With a bandwidth capacity of 3.6 Tbps, the Cisco Nexus 93180YC-FX3 ensures high-speed data transmission and efficient handling of network traffic, suitable for demanding data center environments.
- Extensive connectivity**  
This switch offers 48 ports of 1/10/25GBase-X and 6 ports of 40/100GBase-X, providing flexible connectivity options for a wide range of network architectures and ensuring compatibility with various devices.
- Advanced security**  
Features like Access Control List (ACL) support, Media Access Control Security (MACsec), and NAT support provide a secure network environment by protecting against unauthorized access and ensuring data privacy.
- Comprehensive management**  
Manageable via multiple protocols including CLI, HTTP, HTTPS, and RESTCONF, the Cisco Nexus 93180YC-FX3 offers versatile management options that cater to different administrative preferences and requirements.
- High reliability**  
Designed with hot-plug power supplies and an N+1 power redundancy scheme, this switch ensures uninterrupted operation and high availability, crucial for maintaining continuous business operations.

Main specifications

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Description        | Cisco Nexus 93180YC-FX3 - switch - 48 ports - Managed - rack-mountable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Device Type                | Switch - 48 ports - L3 - Managed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Enclosure Type             | Rack-mountable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Subtype                    | 25 Gigabit Ethernet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Ports                      | 48 x 1/10/25 Gigabit SFP+ + 6 x 40/100 Gigabit QSFP28                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Performance                | Bandwidth: 3.6 Tbps                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Capacity                   | Buffer capacity (MB): 40 ¦ Longest prefix match (LPM) routes: 1792000 ¦ IP host entries: 1792000 ¦ Multicast routes: 128000 ¦ IGMP snooping groups (shipping): 8000 ¦ IGMP snooping groups (maximum): 32000 ¦ Fabric extenders per switch: 16 ¦ ACL entries (ingress): 5000 ¦ ACL entries (egress): 2000 ¦ VLANs supported: 4096 ¦ VRF instances (shipping): 1000 ¦ VRF instances (maximum): 16000 ¦ ECMP paths: 64 ¦ Port channels: 512 ¦ Maximum number of links in a port channel: 32 ¦ SPAN sessions: 4 ¦ RPVST instances: 3967 ¦ HSRP groups: 490 ¦ NAT entries: 1023 ¦ MST instances: 64 ¦ Flow-table size used for Cisco Tetration Analytics platform: 64000 ¦ Queues: 8 |
| MAC Address Table Size     | 512K entries                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Routing Protocol           | BGP, MPLS, RSVP, OSPF, EIGRP, RIP-2, PIM-SM, PIM-SSM, MSDP, ECMP, HSRP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Remote Management Protocol | IPv6, RESTCONF, NETCONF, CLI, JSON, HTTP, HTTPS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Features                   | PTP, SyncE, VXLAN, EVPN, ACL support, MACsec, VTEP support, AFD, ETRAP, DPP, RDMA support, DCB, PFC, flow control, ETS, DCBX support, ECN, vPC technology, SPAN, 4 fans, NAT support                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Compliant Standards        | ITU-T G.8275.1, IEEE 802.1ae                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Power Redundancy           | Optional                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

|                    |                            |
|--------------------|----------------------------|
| Dimensions (WxDxH) | 43.9 cm x 49.6 cm x 4.4 cm |
| Weight             | 9.52 kg                    |

## Extended specification

### General

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Device Type                | Switch - 48 ports - L3 - Managed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Enclosure Type             | Rack-mountable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Subtype                    | 25 Gigabit Ethernet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Ports                      | 48 x 1/10/25 Gigabit SFP+ + 6 x 40/100 Gigabit QSFP28                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Performance                | Bandwidth: 3.6 Tbps                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Capacity                   | Buffer capacity (MB): 40   Longest prefix match (LPM) routes: 1792000   IP host entries: 1792000   Multicast routes: 128000   IGMP snooping groups (shipping): 8000   IGMP snooping groups (maximum): 32000   Fabric extenders per switch: 16   ACL entries (ingress): 5000   ACL entries (egress): 2000   VLANs supported: 4096   VRF instances (shipping): 1000   VRF instances (maximum): 16000   ECMP paths: 64   Port channels: 512   Maximum number of links in a port channel: 32   SPAN sessions: 4   RPVST instances: 3967   HSRP groups: 490   NAT entries: 1023   MST instances: 64   Flow-table size used for Cisco Tetration Analytics platform: 64000   Queues: 8 |
| MAC Address Table Size     | 512K entries                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Routing Protocol           | BGP, MPLS, RSVP, OSPF, EIGRP, RIP-2, PIM-SM, PIM-SSM, MSDP, ECMP, HSRP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Remote Management Protocol | IPv6, RESTCONF, NETCONF, CLI, JSON, HTTP, HTTPS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Features                   | PTP, SyncE, VXLAN, EVPN, ACL support, MACsec, VTEP support, AFD, ETRAP, DPP, RDMA support, DCB, PFC, flow control, ETS, DCBX support, ECN, vPC technology, SPAN, 4 fans, NAT support                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Compliant Standards        | ITU-T G.8275.1, IEEE 802.1ae                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| RAM                        | 32 GB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Built-in Devices           | 128 GB SSD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

### Expansion / Connectivity

|            |                                                                                                                            |
|------------|----------------------------------------------------------------------------------------------------------------------------|
| Interfaces | 48 x 1/10/25GBase-X SFP+   6 x 40/100GBase-X QSFP28   1 x management RJ-45   1 x USB   1 x ToD RJ-45   1 x serial (RS-232) |
|------------|----------------------------------------------------------------------------------------------------------------------------|

### Miscellaneous

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MTBF                | 288,760 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Compliant Standards | IEEE 1588, ITU-T G.8273.2 Class B, RoHS, Directive 2004/108/EC, Directive 2006/95/EC, 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, GB 4943, FCC CFR47 Part 15 A, AS/NZS CISPR22 Class A, CISPR 22 Class A, EN 55022 Class A, ICES-003 Class A, VCCI Class A, EN 61000-3-2, EN 61000-3-3, KN22 Class A, CNS 13438 Class A, EN55024, CISPR 24, EN 300 386, KN 61000-4 |

### Power

|                               |                                  |
|-------------------------------|----------------------------------|
| Power Device                  | Internal power supply - hot-plug |
| Max Supported Qty             | 2                                |
| Power Redundancy              | Optional                         |
| Power Redundancy Scheme       | N+1                              |
| Power Consumption Operational | 375 watt                         |

### Software / System Requirements

|                   |                    |
|-------------------|--------------------|
| Software Included | Cisco NX-OS 10.1.1 |
|-------------------|--------------------|

### Environmental Parameters

|                           |                          |
|---------------------------|--------------------------|
| Min Operating Temperature | 0 °C                     |
| Max Operating Temperature | 40 °C                    |
| Humidity Range Operating  | 5 - 95% (non-condensing) |
| Min Storage Temperature   | -40 °C                   |

|                         |       |
|-------------------------|-------|
| Max Storage Temperature | 70 °C |
|-------------------------|-------|

Dimensions & Weight

|        |         |
|--------|---------|
| Width  | 43.9 cm |
| Depth  | 49.6 cm |
| Height | 4.4 cm  |
| Weight | 9.52 kg |

Product data is provided by CNET, we do not warrant the accuracy and completeness of the material contained in this data sheet