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Overview

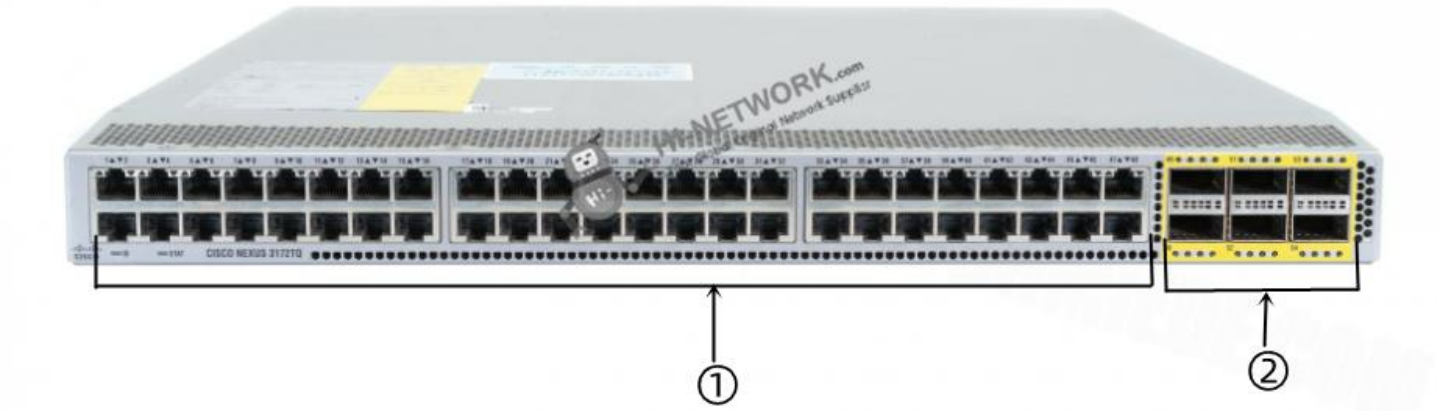
The Cisco Nexus 3172TQ-XL (N3K-C3172TQ-XL) is a 1 rack unit (RU) switch with 8GB of RAM and dual-core 2.5GHz x86 CPUs and 10GBASE-T with 48 10GBASE-T RJ-45 ports (each port can operate at 100-Mbps and 1-Gbps speeds) and 6 Quad SFP+ (QSFP+) ports (each QSFP+ port can support 4 x 10 Gigabit Ethernet or 40 Gigabit Ethernet). The Cisco Nexus 3172TQ-XL is a minor hardware revision of the Cisco Nexus 3172TQ respectively. Enhancements include an additional 4 GB of memory (for a total of 8 GB). The additional memory allows users to perform object-model programming.

Quick Specification

Product Code	N3K-C3172TQ-XL
Enclosure Type	1 RU
Switching Capacity	1.4-Tbps
Forwarding rate	Up to 1 bpps
Configurable maximum transmission units (MTUs)	up to 9216 bytes (jumbo frames)
Ports	48 x 10GBase-T RJ-45 and 6 QSFP+ ports
System Memory	8 GB
Number of power supplies	2
Typical operating power	360 W
Dimension (height x width x depth)	4.4 x 43.9 x 50.5 cm
Net Weight	10 Kg

Product Details:

The Front Panel:



①	48 x 10GBase-T RJ-45
②	6 x QSFP+ ports

The N3K-C3172TQ-XL also has 1 management port, 1 console port, 4 fan modules and 1 USB port and support both port-side exhaust and port-side intake airflow schemes. It requires one AC or DC power supply for operations, but can has a second power supply for redundancy.

The Accessories

Modules and Cables:

Models	Description
L-N3K-LAN1K9=	Nexus 3000 LAN Enterprise License, eDelivery
GLC-SX-MMD	Cisco GLC-SX-MMD 1000BASE-SX SFP transceiver module, MMF, 850nm, DOM
GLC-LH-SMD	Cisco GLC-LH-SMD 1000BASE-LX/LH SFP transceiver module, MMF/SMF, 1310nm, DOM
SFP-10G-SR	10GBASE-SR SFP Module
SFP-H10GB-CU1M	Cisco Direct-Attach Twinax Copper Cable Assembly with SFP+ Connectors SFP-H10GB-CU1M
SFP-H10GB-CU5M	SFP-H10GB-CU5M,5M Passive Copper Twinax Cable F, Nexus,24AWG cable assembly
QSFP-H40G-CU5M	Cisco QSFP to QSFP copper direct-attach 40GBASE-CR4 cable QSFP-H40G-CU5M
QSFP-40G-LR4	40GBase-LR4 Optical Transceiver,QSFP+,40GE,Single-mode Module(1310nm,10km,LC)

Compare to Similar Items

Product Code	N3K-C3172TQ-32T	N3K-C3172TQ-XL
Enclosure Type	1 RU	1 RU
Switching Capacity	1.4-Tbps	1.4-Tbps
Forwarding rate	Up to 1 bpps	Up to 1 bpps
Configurable maximum transmission units (MTUs)	up to 9216 bytes (jumbo frames)	Up to 9216 bytes (jumbo frames)
Ports	32 x 10GBase-T RJ-45 and 6 QSFP+ ports	48 x 10GBase-T RJ-45 and 6 x QSFP+ ports
Dimensions (H x W x D)	4.4 x 43.9 x 50.5 cm	4.4 x 43.9 x 50.5 cm

Get more information:

Do you have any question about the N3K-C3172TQ-XL?

Contact us now via e-mail: info@hi-network.com

Specific Data Sheet:

Type	N3K-C3172TQ-XL
Physical	1RU fixed form factor 72 x 10 Gigabit Ethernet ports (32 10GBASE-T and 6 QSFP+) 48 RJ-45 ports support 100 Mbps and 1 and 10 Gigabit Ethernet 6 QSFP ports support 4 x 10 Gigabit Ethernet or 40 Gigabit Ethernet each Redundant fans (3+1) 2 redundant power supplies Management, console, and USB flash-memory ports
Performance	1.4-Tbps switching capacity Forwarding rate of up to 1 bpps Line-rate traffic throughput (both Layer 2 and 3) on all ports Configurable maximum transmission units (MTUs) of up to 9216 bytes (jumbo frames)
MAC addresses	288,000
Number of VLANS	4096
Spanning-tree instances	RSTP: 512 MSTP: 64
ACL entries	4000 ingress 1000 egress
Routing table	16,000 prefixes and 16,000 host entries 8000 multicast routes
Number of EtherChannels	64 (with vPC)
Number of ports per EtherChannel	32
System memory	8 GB

Buffer size	12 MB shared
Boot flash memory	16 GB
Number of power supplies	2
Power supply types	AC (forward and reversed airflow) - N2200-PAC-400W and N2200-PAC-400W-B (PQ models) - NXA-PAC-500W and NX-PAC-500W-B (TQ models) DC (forward and reversed airflow) - N2200-PDC-400W and N3K-PDC-350W-B (PQ models) - NXA-PDC-500W and NX-PDC-500W-B (TQ models)
Typical operating power	360W
Maximum power	440W
AC PSUs Input voltage Frequency Efficiency	 100 to 240 VAC 50 to 60 Hz 89 to 91% at 220V
DC PSUs Input voltage Maximum current Efficiency	 -40 to -72 VDC 33A (400W unit), 42A (500W unit) 85 to 88%
Typical heat dissipation	1228 BTU/hr
Maximum heat dissipation	1501 BTU/hr
Cooling	Forward and reversed airflow schemes Forward airflow: Port-side exhaust (air enters through fan-tray and power supplies and exits through ports) Reversed airflow: Port-side intake (air enters through ports and exits through fan tray and power supplies) Single fan tray with redundant fans Hot swappable (must swap within 1 minute)
Measured sound power (maximum) Fan speed: 40% duty cycle Fan speed: 60% duty cycle Fan speed: 100% duty cycle	 64.9 dBA 69.3 dBA 76.7 dBA
Dimensions (height x width x depth)	1.72 x 17.3 x 19.7 in. (4.4 x 43.9 x 50.5 cm)
Weight	22.0 lb (10 kg)
Operating temperature	32 to 104°F (0 to 40°C)
Storage temperature	-40 to 158°F (-40 to 70°C)
Operating relative humidity	10 to 85% noncondensing Up to 5 days at maximum (85%) humidity Recommend ASHRAE data center environment
Storage relative humidity	5 to 95% noncondensing
Altitude	0 to 10,000 ft (0 to 3000m)
Regulatory compliance	Products should comply with CE Markings per directives 2004/108/EC and 2006/95/EC.
Safety	UL 60950-1 Second Edition

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	CAN/CSA-C22.2 No. 60950-1 Second Edition EN 60950-1 Second Edition IEC 60950-1 Second Edition AS/NZS 60950-1 GB4943
EMC: Emissions	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	EN55024 CISPR24 EN300386 KN24
RoHS	RoHS 5 compliant except for lead press-fit connectors
MIB Support	Generic MIBs ● SNMPv2-SMI ● CISCO-SMI ● SNMPv2-TM ● SNMPv2-TC ● IANA-ADDRESS-FAMILY-NUMBERS-MIB ● IANAifType-MIB ● IANAiprouteprotocol-MIB ● HCNUM-TC ● CISCO-TC ● SNMPv2-MIB ● SNMP-COMMUNITY-MIB ● SNMP-FRAMEWORK-MIB ● SNMP-NOTIFICATION-MIB ● SNMP-TARGET-MIB ● SNMP-USER-BASED-SM-MIB ● SNMP-VIEW-BASED-ACM-MIB ● CISCO-SNMP-VACM-EXT-MIB ● MAU-MIB ● CISCO-SWITCH-QOS-MIB ● CISCO-CLASS-BASED-QOS- MIB Ethernet MIBs ● CISCO-VLAN-MEMBERSHIP- MIB ● LLDP-MIB ● IP-MULTICAST-MIB Monitoring MIBs ● NOTIFICATION-LOG-MIB ● CISCO-SYSLOG-EXT-MIB ● CISCO-PROCESS-MIB ● RMON-MIB ● CISCO-RMON-CONFIG-MIB ● CISCO-HC-ALARM-MIB Security MIBs ● CISCO-AAA-SERVER-MIB ● CISCO-AAA-SERVER-EXT-MIB ● CISCO-COMMON-ROLES-MIB ● CISCO-COMMON-MGMT-MIB ● CISCO-SECURE-SHELL-MIB Miscellaneous MIBs ● CISCO-LICENSE-MGR-MIB ● CISCO-FEATURE-CONTROL-MIB ● CISCO-CDP-MIB ● CISCO-RF-MIB Layer 3 and Routing MIBs ● UDP-MIB ● TCP-MIB ● OSPF-MIB ● BGP4-MIB ● CISCO-HSRP-MIB

	Configuration MIBs ● ENTITY-MIB ● IF-MIB ● CISCO-ENTITY-EXT-MIB ● CISCO-ENTITY-FRU-CONTROL-MIB ● CISCO-ENTITY-SENSOR-MIB ● CISCO-SYSTEM-MIB ● CISCO-SYSTEM-EXT-MIB ● CISCO-IP-IF-MIB ● CISCO-IF-EXTENSION-MIB ● CISCO-NTP-MIB ● CISCO-VTP-MIB ● CISCO-IMAGE-MIB ● CISCO-IMAGE-UPGRADE-MIB
Standards	IEEE 802.1D: Spanning Tree Protocol ● IEEE 802.1p: CoS Prioritization ● IEEE 802.1Q: VLAN Tagging ● IEEE 802.1s: Multiple VLAN Instances of Spanning Tree Protocol ● IEEE 802.1w: Rapid Reconfiguration of Spanning Tree Protocol ● IEEE 802.3z: Gigabit Ethernet ● IEEE 802.3ad: Link Aggregation Control Protocol (LACP) ● IEEE 802.3ae: 10 Gigabit Ethernet (Cisco Nexus 3064-X) ● IEEE 802.3ba: 40 Gigabit Ethernet ● IEEE 802.3an:10GBASE-T (Cisco Nexus 3064-T) ● IEEE 802.1ab: LLDP ● IEEE 1588-2008: Precision Time Protocol (Boundary Clock)
RFC	BGP ● RFC 1997: BGP Communities Attribute ● RFC 2385: Protection of BGP Sessions with the TCP MD5 Signature Option ● RFC 2439: BGP Route Flap Damping ● RFC 2519: Framework for Interdomain Route Aggregation ● RFC 2545: Use of BGPv4 Multiprotocol Extensions ● RFC 2858: Multiprotocol Extensions for BGPv4 ● RFC 3065: Autonomous System Confederations for BGP ● RFC 3392: Capabilities Advertisement with BGPv4 ● RFC 4271: BGPv4 ● RFC 4273: BGPv4 MIB: Definitions of Managed Objects for BGPv4 ● RFC 4456: BGP Route Reflection ● RFC 4486: Subcodes for BGP Cease Notification Message ● RFC 4724: Graceful Restart Mechanism for BGP ● RFC 4893: BGP Support for 4-Octet AS Number Space OSPF ● RFC 2328: OSPF Version 2 ● 8431RFC 3101: OSPF Not-So-Stubby-Area (NSSA) Option ● RFC 3137: OSPF Stub Router Advertisement

	● RFC 3509: Alternative Implementations of OSPF Area Border Routers ● RFC 3623: Graceful OSPF Restart ● RFC 4750: OSPF Version 2 MIB RIP ● RFC 1724: RIPv2 MIB Extension ● RFC 2082: RIPv2 MD5 Authentication ● RFC 2453: RIP Version 2 IP Services ● RFC 768: UDP ● RFC 783: Trivial File Transfer Protocol (TFTP) ● RFC 791: IP ● RFC 792: ICMP ● RFC 793: TCP ● RFC 826: ARP ● RFC 854: Telnet ● RFC 959: FTP ● RFC 1027: Proxy ARP ● RFC 1305: Network Time Protocol (NTP) Version 3 ● RFC 1519: Classless Interdomain Routing (CIDR) ● RFC 1542: BootP Relay ● RFC 1591: Domain Name System (DNS) Client ● RFC 1812: IPv4 Routers ● RFC 2131: DHCP Helper ● RFC 2338: VRRP IP Multicast ● RFC 2236: IGMPv2 ● RFC 3376: IGMPv3 ● RFC 3446: Anycast Rendezvous Point Mechanism Using PIM and MSDP ● RFC 3569: Overview of SSM ● RFC 3618: MSDP ● RFC 4601: PIM-SM: Protocol Specification (Revised) ● RFC 4607: SSM for IP ● RFC 4610: Anycast-RP using PIM ● RFC 5132: IP Multicast MIB
Layer 2	Layer 2 switch ports and VLAN trunks ● IEEE 802.1Q VLAN encapsulation ● Support for up to 4096 VLANs ● Rapid Per-VLAN Spanning Tree Plus (PVRST+) (IEEE 802.1w compatible) ● MSTP (IEEE 802.1s): 64 instances ● Spanning Tree PortFast ● Spanning Tree Root Guard ● Spanning Tree Bridge Assurance ● Cisco EtherChannel technology (up to 32 ports per EtherChannel) ● LACP: IEEE 802.3ad ● Advanced port-channel hashing based on Layer 2, 3, and 4 information ● vPC

	● Jumbo frames on all ports (up to 9216 bytes) ● Storm control (unicast, multicast, and broadcast) ● Private VLANs ● NvGRE entropy ● Resilient hashing
Layer 3	Layer 3 interfaces: Routed ports on interfaces, switch virtual interfaces (SVIs), port channels, and subinterfaces (total: 1024) ● 64-way ECMP ● 4000 ingress and 1000 egress ACL entries ● IPv6 routing: Static, OSPFv3, and BGPv6 ● Routing protocols: Static, RIPv2, EIGRP, OSPF, and BGP ● Bidirectional Flow Detection (BFD) for BGP, OSPF, and IPv4 static routes ● HSRP and VRRP ● ACL: Routed ACL with Layer 3 and 4 options to match ingress and egress ACLs ● VRF: VRF-lite (IP VPN), VRF-aware unicast (BGP, OSPF, and RIP), and VRF-aware multicast ● Unicast Reverse-Path Forwarding (uRPF) with ACL; strict and loose modes ● Jumbo frame support (up to 9216 bytes) ● Generic Routing Encapsulation (GRE) tunneling ● Advanced BGP features including BGP add-path for eBGP and iBGP, remove-private-as enhancements and eBGP next hop unchanged ● IP-in-IP Tunnel support
Multicast	Multicast: PIMv2, PIM-SM, and PIM-SSM ● Bootstrap router (BSR), Auto-RP, and Static RP ● MSDP and Anycast RP ● Internet Group Management Protocol (IGMP) Versions 2 and 3
Quality of Service (QoS)	Layer 2 IEEE 802.1p (class of service [CoS]) ● 8 hardware queues per port ● Per-port QoS configuration ● CoS trust ● Port-based CoS assignment ● Modular QoS CLI (MQC) compliance ● ACL-based QoS classification (Layers 2, 3, and 4) ● MQC CoS marking ● Differentiated services code point (DSCP) marking ● Weighted Random Early Detection (WRED) ● CoS-based egress queuing ● Egress strict-priority queuing ● Egress port-based scheduling: Weighted Round-Robin (WRR) ● Explicit Congestion Notification (ECN) ● Configurable ECN marking per port ● Priority Flow Control (with 3 no-drop queues and 1 default queue with strict priority scheduling between queues ● Policy Based Routing (PBR)

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Security	Ingress ACLs (standard and extended) on Ethernet ● Standard and extended Layer 3 and 4 ACLs include IPv4, Internet Control Message Protocol (ICMP), TCP, and User Datagram Protocol (UDP) ● VLAN-based ACLs (VACLs) ● Port-based ACLs (PACLs) ● Named ACLs ● ACLs on virtual terminals (vtys) ● DHCP snooping with Option 82 ● Port number in DHCP Option 82 ● DHCP relay ● Dynamic Address Resolution Protocol (ARP) inspection ● Configurable CoPP ● SPAN with ACL filtering
Cisco Nexus Data Broker	Topology support for TAP and SPAN aggregation ● Support for QinQ to tag input source TAP and SPAN ports ● Configuration of symmetric hashing to load-balance traffic to multiple tools ● Traffic filtering based on Layer 1 through Layer 4 header information ● Traffic replication and forwarding to multiple monitoring tools ● Robust RBAC ● Northbound representational state transfer (REST) API for all programmability support
Management	POAP ● Python scripting ● Cisco EEM ● Switch management using 10/100/1000-Mbps management or console ports ● CLI-based console to provide detailed out-of-band management ● In-band switch management ● Locator and beacon LEDs ● Configuration rollback ● SSHv2 ● Secure Copy (SCP) server ● Telnet ● AAA ● AAA with RBAC ● RADIUS ● TACACS+ ● Syslog ● Syslog generation on system resources (for example, FIB tables) ● Embedded packet analyzer ● SNMP v1, v2, and v3 ● Enhanced SNMP MIB support ● XML (NETCONF) support ● Remote monitoring (RMON) ● Advanced Encryption Standard (AES) for management traffic ● Unified username and passwords across CLI and SNMP ● Microsoft Challenge Handshake Authentication Protocol (MS-CHAP)

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	● Digital certificates for management between switch and RADIUS server ● Cisco Discovery Protocol Versions 1 and 2 ● RBAC ● SPAN on physical layer, port channel, and VLAN ● Tunable buffer allocation for SPAN ● Encapsulated Remote SPAN (ERSPAN) ● Ingress and egress packet counters per interface ● PTP (IEEE 1588) boundary clock ● Network Time Protocol (NTP) ● Cisco OHMS ● Comprehensive bootup diagnostic tests ● Cisco Call Home ● Cisco DCNM ● Advanced buffer utilization monitoring ● sFlow

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