

Get a Quote

### Overview

The Cisco Nexus 3172TQ-32T is the Cisco Nexus 3172TQ with 32 10GBASE-T ports (each port can operate at 100-Mbps and 1-Gbps speeds) and 6 QSFP+ ports (each QSFP+ port can support 4 x 10 Gigabit Ethernet or 40 Gigabit Ethernet) enabled. The ports are enabled through software licensing. This switch comes with a 32-10GBASE-T port license preinstalled. To enable the remaining 16 10GBASE-T ports, the customer should install the 16-port upgrade license.

#### **Quick Specification**

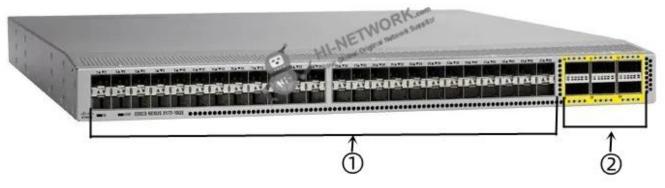
Product Code	N3K-C3172TQ-32T
Enclosure Type	1 RU
Switching Capacity	1.4-Tbps
Forwarding rate	Up to 1 bpps
Configurable maximum transmission units (MTUs)	up to 9216 bytes (jumbo frames)
Ports	32 x 10GBase-T RJ-45 and 6 QSFP+ ports (To enable the remaining 16 10GBASE-T ports, the customer should install the 16-port upgrade license.)
System Memory	4 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	32 x 10GBase-T RJ-45 and 6 QSFP+ ports (To enable the remaining 16 10GBASE-T ports, the customer should install the 16-port upgrade license.)
2	6 x QSFP+ ports

The N3K-C3172TQ-32T 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-32T?

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

### **Specific Data Sheet:**

Туре	N3K-C3172TQ-32T
	1RU fixed form factor
	48 x 10 Gigabit Ethernet ports (32 10GBASE-T and 6 QSFP+)
	32 RJ-45 ports support 100 Mbps and 1 and 10 Gigabit Ethernet
Physical	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
	1.4-Tbps switching capacity
Performance	Forwarding rate of up to 1 bpps
Terrormance	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
	RSTP: 512
Spanning-tree instances	MSTP: 64
ACL entries	4000 ingress
ACL CHITICS	1000 egress
Routing table	16,000 prefixes and 16,000 host entries
Routing table	8000 multicast routes
Number of EtherChannels	64 (with vPC)
Number of ports per EtherChannel	32
System memory	4 GB





Buffer size	12 MB shared
Boot flash memory	2 GB
Number of power supplies	2
	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)
Power supply types	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)
AC PSUs	
Input voltage	100 to 240 VAC
Frequency	50 to 60 Hz
Efficiency	89 to 91% at 220V
DC PSUs	
Input voltage	-40 to -72 VDC
Maximum current	33A
Efficiency	85 to 88%
	Forward and reversed airflow schemes
	Forward airflow: Port-side exhaust (air enters through fan-tray and power supplies and exits through ports)
Cooling	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	64.9 dBA
Fan speed: 60% duty cycle	69.3 dBA
Fan speed: 100% duty cycle	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)
	10 to 85% noncondensing
Operating relative humidity	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.
	UL 60950-1 Second Edition
	CAN/CSA-C22.2 No. 60950-1 Second Edition
Sofate	EN 60950-1 Second Edition
Safety	IEC 60950-1 Second Edition
	AS/NZS 60950-1
	GB4943





	,	
	47CFR Part 15 (CFR 47) Class A	
	AS/NZS CISPR22 Class A	
	CISPR22 Class A	
	EN55022 Class A	
EMC: Emissions	ICES003 Class A	
	VCCI Class A	
	EN61000-3-2	
	EN61000-3-3	
	KN22 Class A	
	CNS13438 Class A	
	EN55024	
	CISPR24	
EMC: Immunity	EN300386	
	KN24	
RoHS	RoHS 5 compliant except for lead press-fit connectors	
	Generic MIBs	Monitoring MIBs
	• SNMPv2-SMI	NOTIFICATION-LOG-MIB
	• CISCO-SMI	• CISCO-SYSLOG-EXT-MIB
	• SNMPv2-TM	• CISCO-PROCESS-MIB
	• SNMPv2-TC	• RMON-MIB
	IANA-ADDRESS-FAMILY-NUMBERS-MIB	CISCO-RMON-CONFIG-MIB
	• IANAifType-MIB	• CISCO-HC-ALARM-MIB
	IANAirrype-wilb     IANAirrouteprotocol-MIB	Security MIBs
	HCNUM-TC	CISCO-AAA-SERVER-MIB
	• CISCO-TC	CISCO-AAA-SERVER-EXT-MIB
	• SNMPv2-MIB	CISCO-COMMON-ROLES-MIB
	SNMP-COMMUNITY-MIB	CISCO-COMMON-MGMT-MIB
		CISCO-SECURE-SHELL-MIB
	<ul><li>SNMP-FRAMEWORK-MIB</li><li>SNMP-NOTIFICATION-MIB</li></ul>	Miscellaneous MIBs
MIB Support	SNMP-TARGET-MIB     SNMP HIGED BAGED GM MID	CISCO-LICENSE-MGR-MIB     CISCO FEATURE CONTROL MIR.
	SNMP-USER-BASED-SM-MIB     SNMP-WEW PASED ASM MIP.	CISCO-FEATURE-CONTROL-MIB     CISCO-CDB MID
	SNMP-VIEW-BASED-ACM-MIB     GIGGO SNMP VACM EXT MIP	CISCO-CDP-MIB      CISCO DE MID
	CISCO-SNMP-VACM-EXT-MIB     MANAMER	• CISCO-RF-MIB
	MAU-MIB  ORGAN GRANTING AND	Layer 3 and Routing MIBs
	• CISCO-SWITCH-QOS-MIB	• UDP-MIB
	• CISCO-CLASS-BASED-QOS- MIB	• TCP-MIB
	Ethernet MIBs	• OSPF-MIB
	CISCO-VLAN-MEMBERSHIP- MIB	• BGP4-MIB
	• LLDP-MIB	• CISCO-HSRP-MIB
	• IP-MULTICAST-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
	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
Standards	• 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)
	BGP
	RFC 1997: BGP Communities Attribute  PEC 2395 P. A. A. C.
	RFC 2385: Protection of BGP Sessions with the TCP MD5 Signature Option  Output  DEG 2420 DGP Dev. File Dev. 1
	RFC 2439: BGP Route Flap Damping  DEC 2510 F
	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	• 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 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
Layer 2	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





	to -
	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
	<ul> <li>Routing protocols: Static, RIPv2, EIGRP, OSPF, and BGP</li> </ul>
	Bidirectional Flow Detection (BFD) for BGP, OSPF, and IPv4 static routes
	HSRP and VRRP
Layer 3	ACL: Routed ACL with Layer 3 and 4 options to match ingress and egress ACLs
	<ul> <li>VRF: VRF-lite (IP VPN), VRF-aware unicast (BGP, OSPF, and RIP), and VRF-aware multicast</li> </ul>
	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: PIMv2, PIM-SM, and PIM-SSM
	Bootstrap router (BSR), Auto-RP, and Static RP
Multicast	MSDP and Anycast RP
	Internet Group Management Protocol (IGMP) Versions 2 and 3  Version 2 VERD 2004 (All Leading For Control of Control
	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
Quality of Service (QoS)	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)
Security	Ingress ACLs (standard and extended) on Ethernet
	<ul> <li>Standard and extended Layer 3 and 4 ACLs include IPv4, Internet Control Message Protocol (ICMP),</li> </ul>
	TCP, and User
	Datagram Protocol (UDP)
	VLAN-based ACLs (VACLs)
	• Port-based ACLs (PACLs)
	l '





	C =
	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
	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
Cisco Nexus Data Broker	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
	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+
Management	• Syslog
Management	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 Enginetic Standard (AES) for management twoffice
	Advanced Encryption Standard (AES) for management traffic      Unified username and passwords across CLL and SNMP.
	Unified username and passwords across CLI and SNMP      Migrosoft Challenge Handshake Authentication Protocol (MS_CHAP)
	Microsoft Challenge Handshake Authentication Protocol (MS-CHAP)      Digital certificates for management between switch and PADIJIS server.
	Digital certificates for management between switch and RADIUS server      Circa Discourse Protocol Various Land 2
	Cisco Discovery Protocol Versions 1 and 2      PRAC
	RBAC      SPAN on physical laws next about a new Many
	SPAN on physical layer, port channel, and VLAN  To the first the first the first content of the second co
	Tunable buffer allocation for SPAN
	Encapsulated Remote SPAN (ERSPAN)





-Y 1 14 4 '4 C
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

### Want to Buy?

Order Now

Get a Quote









Learn Moreabout Hi-Network

Search our Resource Library

Follow us on LinkedIn

Contact for Sales or Support

## Contact HI-NETWORK.COM For Global Fast Shipping

HongKong Office Tel: +00852-66181601 HangZhou Office Tel: +0086-571-86729517

Email: <u>info@hi-network.com</u>
Skype: echo.hinetwork

