

Dell Networking C-Series

C7004 and C7008 aggregation/core chassis switches

High-density, line-rate, non-blocking 1/10/40GbE switches, cost-effective PoE+ enabled GbE ports, modular Dell Networking OS software for inherent stability, and in-service diagnostics and traffic visibility tools for increased network control.

C-Series resilient switches

The Dell C-Series resilient chassis-based switches deliver reliability, network control and scalability. The C-series is designed to support GbE and 10GbE switch aggregation for enterprise campus and business wiring closets, while also supporting 1/10GbE server aggregation and 10/40GbE core operations/campus connections for data centers. Comprehensive management capabilities make the C-Series a cost-effective and flexible deployment option.

Key applications

- High-density 1/10GbE aggregation into a multiple Gbps or 40GbE backbone
- Cost-effective, scalable PoE+ IEEE wiring closet aggregation of VoIP phones, wireless access points or other IEEE 802.3at-compliant devices
- Low-cost 100/1000Mbps server aggregation for small-to medium-sized data centers (100s to 1,000s of servers)
- Scalable GbE aggregation and 10GbE transport in a carrier's Middle Mile network to enable the deployment of triple play services

Key features

The Dell C-Series is designed to provide inherent reliability, network control and scalability for high-performance Ethernet environments.

- Virtual Link Trunking (VLT) feature provides up to 100% better link performance and improved resiliency for layer 2 networks
- Up to 24x 40GbE ports (9RU chassis) or 48x 40GbE ports total (13RU chassis)

- Up to 320 line-rate 10/100/1000Base-T ports with full 30W Class 4 PoE+ support in a 13RU chassis
- Up to 64 line-rate, non-blocking 10GbBase-T ports or 128x 10GbBase-T ports in a 13RU chassis
- Full complement of standards-based Layer 2, IPv4 and IPv6 features for unicast and multicast applications
- Can be deployed as either an L2 or L3 access switch with extended capabilities, including PVST+, PBR, OSPF, ECMP and BGP
- Switch fabric capacity of up to 1.536Tbps and up to 952Mpps L2/L3 packet forwarding capacity
- High availability architecture
 - 1+1 route processor module design
 - Continuous runtime data plane monitoring and advanced in-service CLI diagnostic functions
 - Power supply redundancy with load sharing power bus enabling critical operations and uninterrupted VoIP calls during one or multiple power supply failures
- Suite of security, access control and wiring closet edge features for enterprise networks
- Intelligent power management features provide automatic sensing, provisioning and management of PoE power

Scalable, cost-effective aggregation chassis for enterprise campus and data center networks.

Specifications: C-Series resilient enterprise switches

Dell SKU description

C-Series chassis

C7004 4-slot chassis* with 3 AC power supplies
C7004 4-slot chassis* with 1 AC power supply
C7004 4-slot chassis* with 3 AC power supplies and variable speed fan
C7004 4-slot chassis* with 1 AC power supply and variable speed fan
C7008 8-slot chassis* with 4 AC power supplies
C7008 8-slot chassis* with 2 AC power supplies
C7008 8-slot chassis* with 4 AC power supplies and variable speed fan
C7008 8-slot chassis* with 2 AC power supply and variable speed fan
*Chassis includes backplane, switch and route processor module and fan subsystem.

Fans

C7004 enhanced fan subsystem
C7008 enhanced fan subsystem

Line cards

Switch Fabric and Route Processor Module
6-port 40GbE line card, QSFP+ modules required
16-port 1/10GbE line card with RJ45 interfaces
8-port 10GbE Line card SFP+ modules required
4-port 10GbE line card, XFP modules required
8-port 10GbE line card, XFP modules required
48-port GbE line card, SFP modules required
48-port 10/100/1000Base-T line card with RJ45 interfaces
48-port 10/100/1000Base-T line card with RJ45 interfaces and PoE
48-port 10/100/1000Base-T line card with RJ45 interfaces and PoE+
FlexMedia line card: 36 10/100/1000Base-T RJ45 interfaces,
8x GbE interfaces and 2x 10 GbE interfaces
– SFP modules required
– SFP+ modules required
FlexMedia line card with PoE: 36 10/100/1000Base-T RJ45 interfaces, 8x GbE interfaces and 2x 10GbE interfaces
– SFP modules required
– SFP+ modules required

Redundant power supply

1200W AC Power Supply Module
1600W AC Power Supply Module

For optics/transceivers and cables, please refer to the respective line card in this spec sheet.

Chassis models

C7008: 8 line card slots

2 route processor module with integrated switch fabric slots
8 power supply module slots and 1 fan tray slot
Size: 13 RU, 22.7 x 17.4 x 14.4" (57.66 x 44.2 x 37.58 cm) (H x W x D)
Weight with factory-installed components: 55 lbs (24.95 kg)
Weight fully loaded: 152.27 lbs (69.07 kg)
ISO 7779 A-weighted sound pressure level: 73.8 dBA at 73.4°F (23°C)

1600W PSU:

Nominal input voltage: 100–240V AC 50/60Hz
Maximum thermal output:
9,235 BTU/h at 100/120V AC, 9,299 BTU/h at 200/240V AC
Maximum input current per module:
14A at 100V AC, 11 A at 120V AC, 9A at 200V AC, 7A at 240V AC
Maximum system power input:
9,667KVA at 100/120V AC, 12,596KVA at 200/240V AC
Maximum power consumption:
2,707W at 100/120V AC, 2,726W at 200/240V AC

1200W PSU:

Maximum thermal output:
8,055 BTU/h at 100/120V AC, 7,420 BTU/h at 200/240V AC
Maximum input current per module:
14A at 100V AC, 12A at 120V AC, 7A at 200V AC, 6A at 240V AC
Maximum system power input:
8,274KVA at 100/120V AC, 8,088KVA at 200/240V AC
Maximum power consumption:
2,361W at 100/120V AC, 2,175W at 200/240V AC

C7004: 4 line card slots

2 route processor module with integrated switch fabric slots
6 power supply module slots and 1 fan tray slot
Size: 9 RU, 15.7 x 17.5 x 15.3" (39.88 x 44.45 x 38.86 cm) (H x W x D)
Weight with factory-installed components: 38 lbs (17.24 kg)
Weight fully loaded: 86.63 lbs (39.29 kg)
ISO 7779 A-weighted sound pressure level: 69.3 dBA at 73.4°F (23°C)

1600W PSU:

Maximum thermal output:
5,618 BTU/h at 100/120V AC, 5,304 BTU/h at 200/240V AC
Maximum input current per module:
14A at 100V AC, 11A at 120V AC, 9A at 200V AC, 7A at 240V AC
Maximum system power input:
6,897KVA at 100/120V AC, 7,315KVA at 200/240V AC
Maximum power consumption:
1,647W at 100/120V AC, 1,555W at 200/240V AC

1200W PSU:

Maximum thermal output:
4,449 BTU/h at 100/120V AC, 4,122 BTU/h at 200/240V AC
Maximum input current per module:
14A at 100V AC, 11A at 120V AC, 7A at 200V AC, 6A at 240V AC
Maximum system power input:
4,261KVA at 100/120V AC, 4,165KVA at 200/240V AC
Maximum power consumption:
1,304W at 100/120V AC, 1,208W at 200/240V AC

Common attributes to both chassis

19" front rack mountable
Maximum operating specifications:
Temperature: 32° to 104°F (0° to 40°C)
Altitude: No performance degradation to 10,000 feet (3,048 meters)
Relative humidity: 5 to 85% (RH), non-condensing
Maximum non-operating specifications:
Temperature: -40° to 158°F (-40° to 70°C)
Maximum altitude: 15,000 feet (4,572 meters)
Relative humidity: 5 to 95% (RH), non-condensing

Redundancy/Availability

1+1 redundant switch fabric and route processor modules
Redundant power supplies/PSUs (**Note: all power supplies must be of the same type for switch operation**)

C7008:

3 PSU (redundant) or 2 PSU minimum for 100/120V AC, using either 1600W or 1200W PSU
3 PSU (redundant) or 2 PSU minimum for 200/240V AC, using 1200W PSU
2 PSU (redundant) or 1 PSU minimum for 200/240V AC, using 1600W PSU
Up to 7+1 redundant PSUs supported
PoE+ operation requires 1600W PSU; PoE operation uses 1600W or 1200W PSU

C7004:

2 PSU (redundant) or 1 PSU minimum for 100/120, or 200/240V AC, using either 1600W or 1200W PSU
Up to 5+1 redundant PSUs supported
PoE+ operation requires 1600W PSU; PoE operation uses 1600W or 1200W PSU
Online insertion and removal of all components
Environmental self-monitoring

Performance

MAC addresses: C7004: 256K, C7008: 512K
IPv4 routes: 12K
IPv6 routes: 6K
Switching fabric capacity: C7004: 768Gbps (571Mpps)
C7008: 1,536Tbps (1,142Mpps)
Link aggregation: 8 links per group, 128 groups per chassis
Queues per port: 4 queues
VLANs: 1024 VLANs with 4096 tag value support
Line-rate Layer 2 switching: All protocols, including IPv4 and IPv6
Line-rate Layer 3 routing: Based on Layer 2. IPv4 or IPv6 headers
LAG load balancing: <5 µs for 64 byte frames
Switching latency: <5 µs for 64 byte frames

IEEE compliance

802.1AB LLDP
802.1D Bridging, STP
802.1p L2 Prioritization
802.1Q VLAN Tagging, Double VLAN Tagging, GVRP
802.1s MSTP
802.1w RSTP
802.1X Network Access Control
802.3ab Gigabit Ethernet (1000BASE-T)
802.3ac Frame Extensions for VLAN Tagging
802.3ad Link Aggregation with LACP
802.3ae 10 Gigabit Ethernet (10GBASE-X)
802.3af Power over Ethernet
802.3ak 10 Gigabit Ethernet (10GBASE-CX4)
802.3at Power over Ethernet Plus
802.3ba 40 Gigabit Ethernet on optical ports
802.3i Ethernet (10BASE-T)
802.3u Fast Ethernet (100BASE-FX, 100BASE-TX)
802.3x Flow Control
802.3z Gigabit Ethernet (1000BASE-X)
ANSI/TIA-1057 LLDP-MED
Force10 FRRP (Force10 Redundant Ring Protocol)
Force10 PVST+
MTU 9,252 bytes

RFC and I-D compliance

General Internet protocols

768 UDP 1350 TFTP
793 TCP 2474 Differentiated Services
854 Telnet 3164 Syslog
959 FTP draft-ietf-bfd-base-03 BFD
1321 MD5

General IPv4 protocols

791 IPv4 1812 Routers
792 ICMP 1858 IP Fragment Filtering
826 ARP 2131 DHCP (server and relay)
1027 Proxy ARP 2338 VRRP
1035 DNS (client) 3021 31-bit Prefixes
1042 Ethernet Transmission 3046 DHCP Option 82
1191 Path MTU Discovery 3069 Private VLAN
1519 NTPv3 3128 Tiny Fragment Attack Protection
1542 CIDR
1542 BOOTP (relay)

General IPv6 protocols

1981 Path MTU Discovery (partial) 2464 Ethernet Transmission
2460 IPv6 2675 Jumbograms
2461 Neighbor Discovery (partial) 3587 Global Unicast Address Format
2462 Stateless Address Autoconfiguration 4291 Addressing
2463 ICMPv6

RIP

1058 RIPv1 2453 RIPv2

OSPF

1587 NSSA 3623 Graceful Restart
2328 OSPFv2 4222 Prioritization and Congestion Avoidance
2370 Opaque LSA
2740 OSPFv3

BGP

1997 Communities 2842 Capabilities
2385 MD5 2858 Multiprotocol Extensions
2439 Route Flap Damping 2918 Route Refresh
2545 Multiprotocol Extensions 3065 Confederations
for IPv6 4360 Extended Communities
2796 Route Reflection 4893 4-byte ASN
draft-ietf-idr-bgp4-20 BGPv4 5396 4-byte ASN
draft-ietf-idr-bgp4-20 Graceful Restart Representation

Multicast

1112 IGMPv1 4541 IGMPv1/v2 Snooping
2236 IGMPv2 draft-ietf-pim-sm-v2-new-05
3376 IGMPv3 PIM-SM for IPv4
3569 SSM for IPv4

Network management

1155 SMIv1 2865 RADIUS
2385 MD5 3273 RMON High Capacity MIB
1156 Internet MIB 3376 IGMPv3
1157 SNMPv1 3416 SNMPv2
1212 Concise MIB Definitions 3418 SNMP MIB
1215 SNMP Traps 3434 RMON High Capacity Alarm MIB
1493 Bridges MIB 3580 802.1X with RADIUS
1850 OSPFv2 MIB 5060 PIM MIB
1901 Community-based SNMPv2 ANSITIA-1057 LLDP-MED MIB
2011 IP MIB draft-ietf-tacacs-02
2012 TCP MIB TACACS+
2013 UDP MIB draft-ietf-idr-bgp4-mib-06
2024 DLSw MIB BGP MIBv1
2096 IP Forwarding Table MIB IEEE 802.1AB
2570 SNMPv3 LLDP MIB, LLDP DOT1
2571 Management Frameworks MIB, LLDP DOT3 MIB
2572 Message Processing and Dispatching ruzin-mstp-mib-02
MSTP MIB (traps)
2574 SNMPv3 USM sFlow.org sFlowv5
2575 SNMPv3 VACM sFlow.org sFlowv5 MIB (version 1.3)
2576 Coexistence Between SNMPv1/v2/v3
2578 SMIv2 FORCE10-BGP4-V2-MIB
2579 Textual Conventions for SMIv2 LLDP MIB, LLDP MIB, LLDP DOT3 MIB
2580 Conformance Statements for SMIv2 FORCE10-CS-CHASSIS-MIB
FORCE10-IF-EXTENSION-MIB
FORCE10-LINKAGG-MIB
FORCE10-COPY-CONFIG-MIB
FORCE10-MON-MIB
FORCE10-PRODUCTS-MIB
FORCE10-SMI
FORCE10-SYSTEM-COMPONENT-MIB
2787 VRRP MIB
2819 RMON MIB
(groups 1, 2, 3, 9)
2863 Interfaces MIB FORCE10-TC-MIB
FORCE10-TRAP-ALARM-MIB

Regulatory compliance

Safety

UL/CSA 60950-1
EN 60950-1
IEC 60950-1, Including all National Deviations and Group Differences
EN 60825-1 Safety of Laser Products Part 1:
Equipment Classification Requirements and User's Guide
EN 60825-2 Safety of Laser Products Part 2:
Safety of Optical Fibre Communication Systems
FDA Regulation 21 CFR 1040.10 and 1040.11

Emissions

Australia/New Zealand: AS/NZS CISPR 22: Class A
Canada: ICES-003, Issue-4, Class A
Europe: EN 55022 (CISPR 22), Class A
Japan: VCCI Class A
USA: FCC CFR 47 Part 15, Subpart B, Class A

Immunity

EN 300 386: EMC for Network Equipment
EN 55024
EN 61000-3-2: Harmonic Current Emissions
EN 61000-3-3: Voltage Fluctuations and Flicker
EN 61000-4-2: ESD
EN 61000-4-3: Radiated Immunity
EN 61000-4-4: EFT
EN 61000-4-5: Surge
EN 61000-4-6: Low Frequency Conducted Immunity





RoHS

All C-Series components are EU RoHS compliant


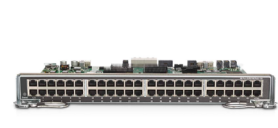


Certifications

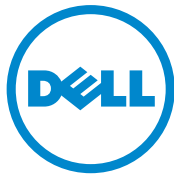
TAA (Trade Agreement Act) compliant models also available





| | Dell Networking C-Series 40 Gigabit Ethernet 6-port QSFP Line Card | Dell Networking C-Series 16-port 1/10 Gigabit Ethernet 10GBase-T Line Card | Dell Networking C-Series 10 Gigabit Ethernet 8-port SFP+ Line Card | Dell Networking C-Series 10 Gigabit Ethernet 8-port XFP Line Card |
|--|--|---|---|---|
| |  |  |  |  |
| Description | The 6-port QSFP+ 40GbE line card enables future-ready communications and high density connectivity to data center and large scale enterprise aggregation. It also drives up to 48 40GbE ports per chassis for high-performance, non-stop networking. | The 16-port 1/10GbE line card delivers purpose-built performance and higher density to enhance existing network deployments with cost-effective communications and uplink capability with existing Category 5 and 6 copper infrastructure. It also enables up to 128 10GbE ports per chassis for high-performance, non-stop networking with lower TCO. | The 8-port SFP+ 10GbE line card delivers purpose-built performance to enhance existing infrastructure with high-density fiber communications. This line card provides cost-effective uplink capability with open-standards SFP+ operation coupled with lower TCO than XFP options. It also drives up to 64 line-rate, non-blocking 10GbE ports for high-performance, non-stop networking. | The 8-port 10GbE line card with pluggable XFP modules, supports distances of up to 80 km. This line card provides density of up to 64 line-rate, non-blocking 10GbE ports in a single chassis. |
| Key features | Maximum capability and connectivity upstream to data center and blade infrastructures Readily aggregates 1/10GbE Edge switches Up to 48 x 40GbE ports in a single chassis Breakout mode enables conversion 40G to 4x10GbE SFP+ ports for bandwidth sharing Per-port status and activity LEDs | Easily enable copper-based infrastructures with cost-effective RJ45 connections 16 10GbE/GbE interfaces per line card with autonegotiation and auto-MDI/MDIX Configure up to 128 10GbE ports in a single chassis 5 microsecond switching latency under full load for 64 byte frames Per-port status and activity LEDs | Up to 64 10GbE SFP+ ports in a single chassis with Line-rate, non-blocking performance Pluggable SFP+ modules providing support for SR, LR, ER as well as DAC support 5 microsecond switching latency under full load for 64 byte frames Per-port status and activity LEDs | Up to 64 10GbE ports in a single chassis with Line-rate, non-blocking performance Pluggable XFP modules providing support for SR, LR, ER, ZR, DWDM and CX4 interfaces 5 microsecond switching latency under full load for 64 byte frames Per-port status and activity LEDs |
| Ports | | | | |
| 10/100/1000Base-T | none | 16 RJ-45 (1000Base-T) | none | none |
| 1GbE (Fiber) | none | none | none | none |
| 10GbE | 10GbE breakout mode, up to 24 SFP+ (cables sold separately) | 16 RJ-45 (10GBase-T) | 8 SFP+ | 8 XFP |
| 40GbE | 6 | none | none | none |
| PoE/PoE+ ports | none | none | none | none |
| Optics and cables (sold separately) | Transceiver, QSFP+, 40GbE SR Optics, 850nm Wavelength, 100–150m Reach on OM3/OM4 Transceiver, QSFP+, 40GbE eSR Optics, 850nm Wavelength, 300–400m Reach on OM3/OM4 Cable, 40GbE QSFP+, Direct Attach Cable, 0.5m, 1m, 3m, 5m Cable, 40GbE QSFP+ to 4xSFP+ Direct Attach Breakout Cable, 0.5m, 1m, 3m, 5m Cable, 40GbE MTP to 4xLC Optical Breakout Cable (optics not included), 1m, 3m, 5m, 7m MTP Fiber Cable (optics not included), OM3, 1m, 3m, 5m, 7m, 10m, 25m, 50m, 75m, 100m | | Transceiver, SFP+, 10GbE, SR, 850nm Wavelength, 300m Reach Transceiver, SFP+, 10GbE, LR, 1310nm Wavelength, 10km Reach Tranceiver, 10GbE SFP+ LRM Optic, 1310nm Wavelength, 220m reach on MMF Transceiver, SFP+, 10GbE, ER, 1310nm Wavelength, 40km Reach Cable, SFP+ to SFP+, 10GbE, Copper Twinax Direct Attach Cable, 0.5m, 1m, 3m, 5m, 7m | Transceiver, Qualified SR/SW 10 GbE XFP optics module, LC connector Transceiver, Qualified LR/LW 10 GbE XFP optics module, LC connector Transceiver, Qualified ER/EW 10 GbE XFP optics module, LC connector Transceiver, Qualified ZR/ZW 10 GbE XFP optics module, LC connector Transceiver, Qualified DWDM 10 GbE XFP optics module, LC connector (100GHz ITU grid, C-Band) Transceiver, Qualified CX4 10 GbE |
| IEEE compliance | 802.1AB LLDP 802.1D Bridging, STP 802.1p L2 Prioritization 802.1Q VLAN Tagging, Double VLAN Tagging 802.1X Network Access Control 802.3ac Frame Extensions for VLAN Tagging 802.3ae 10GbE (10GBase-X) 802.3ba 40GbE (40GBase-SR4, 40GBase-CR4, 40GBase-LR4) on optical ports 802.3x Flow Control 802.3z Gigabit Ethernet (1000Base-X) Dell Networking PVST+ MTU 9,252 bytes | 802.1AB LLDP 802.1D Bridging, STP 802.1p L2 Prioritization 802.1Q VLAN Tagging, Double VLAN Tagging 802.1X Network Access Control 802.3ab Gigabit Ethernet (1000BASE-T) 802.3ac Frame Extensions for VLAN Tagging 802.3ae 10GbE (10GBase-X) 802.3x Flow Control 802.3z Gigabit Ethernet (1000Base-X) Dell Networking PVST+ MTU 9,252 bytes | 802.1p L2 Prioritization 802.1Q VLAN Tagging, Double VLAN Tagging 802.3ac Frame Extensions for VLAN Tagging 802.3ae 10GbE 802.3x Flow Control MTU 9,252 bytes | 802.1p L2 Prioritization 802.1Q VLAN Tagging, Double VLAN Tagging 802.3ac Frame Extensions for VLAN Tagging 802.3ae 10GbE 802.3ak 10GbE (10GBASE-CX4) 802.3x Flow Control MTU 9,252 bytes |
| Maximum power consumption and thermal | 128W (436 BTU/h) | 170W (579 BTU/h) | 120W (409 BTU/h) | 120W (409 BTU/h) |
| Physical | Occupies a single slot in the Dell C7004/C7008 chassis Dimensions 1.75 x 15.25 x 13.75" (4.45 x 38.74 x 34.93 cm) (H x W x D) | | | |
| | Weight: 6.37 lbs (2.89 kg) | Weight: 7.32 lbs (3.32 kg) | Weight: 5.31 lbs (2.41 kg) | Weight: 5.31 lbs (2.41 kg) |
| Max operating specifications | Operating temperature: 32° to 104°F (0° to 40°C) Operating altitude: No performance degradation to 10,000 ft (3,048m) Operating humidity: Ambient to 90% | | Operating temperature: 32° to 104°F (0° to 40°C) Operating altitude: No performance degradation to 10,000 ft (3,048 m) Operating humidity: 5 to 85%, non-condensing | |
| Max non-operating specifications | Operating temperature: -40° to 149°F (-40° to 65°C) Operating altitude: 39,370 ft (12,000 m) Operating humidity: 20 to 90% | | Operating temperature: -40° to 158°F (-40° to 70°C) Operating altitude: 15,000 ft (4,572 m) Operating humidity: 5 to 95%, non-condensing | |



| | Dell Networking C-Series 10 Gigabit Ethernet 4-port XFP Line Card | Dell Networking C-Series 48-port 10/100/1000Base-T with PoE+ Card | Dell Networking C-Series FlexMedia Gigabit Ethernet and 10 Gigabit Ethernet Line Card | Dell Networking C-Series 48-port 10/100/1000Base-T with PoE Line Card |
|---|--|--|---|---|
| |  |  |  |  |
| Description | The 4-port 10GbE line card with pluggable XFP modules, supports distances of up to 80 km. This line card provides density of up to 32 line-rate, non-blocking 10GbE ports in a single chassis. | The 48-port 10/100/1000Base-T line card provides IEEE 802.3at PoE+ support. Using intelligent power management, each chassis can provide up to 30W of power per port while maintaining full system and PoE power supply redundancy. Note: PoE+ operation requires usage of 1600W PSU | The multi-port FlexMedia line card features 36 10/100/1000Base-T ports, 8 GbE SFP ports, and 2 10GbE SFP+ ports. This line card provides flexibility for supporting applications that require a diverse set of GbE and 10GbE interfaces in the same chassis. PoE-capable line card also available. | The 48-port 10/100/1000Base-T line card provides IEEE 802.3af PoE support. Using intelligent power management, each chassis can provide up to 15.4 W of power per port, while maintaining full system and PoE power supply redundancy. |
| Key features | Up to 32 10GbE ports in a single chassis with line-rate, non-blocking performance Pluggable XFP modules providing support for SR, LR, ER, ZR, DWDM and CX4 interfaces 5 microsecond switching latency under full load for 64 byte frames Per-port status and activity LEDs | Up to 384 (320 ports at full PoE+) 10/100/1000Base-T PoE/PoE+ ports in a single chassis with line-rate, non-blocking performance Intelligent power management with PoE+ (IEEE 802.3at) support, provides Class 4 inline power of 30W per port Integrated Time Domain Reflectometer (TDR) to easily monitor and isolate faults on copper wiring infrastructure 5 microsecond switching latency under full load for 64 byte frames Per-port status and activity LEDs | Standard and PoE versions of the line card support wiring closet and data center applications 36 10/100/1000Base-T interfaces with autonegotiation and auto-MDI/MDIX 8 GbE interfaces with pluggable SFP modules providing support for 100Base-FX, 1000Base-SX, 1000Base-LX, 1000Base-ZX and 1000Base-T 2 10GbE interfaces with pluggable SFP+ modules providing support for 10GBase-SR LR/ER Per-port status and activity LEDs | Up to 384 10/100/1000Base-T PoE ports in a single chassis with line-rate, non-blocking performance Intelligent power management with PoE (IEEE 802.3af) support, provides Class 3 inline power of 15.4W per port Integrated TDR to easily monitor and isolate faults on copper wiring infrastructure 5 microsecond switching latency under full load for 64 byte frames Per-port status and activity LEDs |
| Ports | | | | |
| 10/100/1000Base-T | none | 48 | 36 | 48 |
| 1GbE (Fiber) | none | none | 8 SFP | none |
| 10GbE | 4 XFP | none | 2 SFP+ | none |
| 40GbE | none | none | none | none |
| PoE/PoE+ ports | none | 48 PoE+ | 36 (PoE model) | 48 PoE |
| Optics and cables (sold separately) | Transceiver, Qualified SR/SW 10 GbE XFP optics module, LC connector Transceiver, Qualified LR/LW 10 GbE XFP optics module, LC connector Transceiver, Qualified ER/EW 10 GbE XFP optics module, LC connector Transceiver, Qualified ZR/ZW 10 GbE XFP optics module, LC connector Transceiver, Qualified DWDM 10 GbE XFP optics module, LC connector (100 GHz ITU grid, C-Band) Transceiver, Qualified CX4 10 GbE XFP module, CX4 connector | | Transceiver, Qualified 100Base-FX Ethernet SFP optics module, LC connector Transceiver, Qualified SX GbE SFP optics module, LC connector Transceiver, Qualified LX GbE SFP optics module, LC connector Transceiver, Qualified ZX GbE SFP optics module, LC connector Transceiver, Qualified 1000Base-T GbE SFP module, RJ45 connector) Transceiver, SFP+, 10GbE, SR, 850nm Wavelength, 300m Reach Transceiver, SFP+, 10GbE, LR, 1310nm Wavelength, 10km Reach Transceiver, SFP+, 10GbE, ER, 1310nm Wavelength, 40km Reach Transceiver, Qualified 1000Base-T GbE SFP module, RJ45 connector) | |
| IEEE compliance | 802.1p L2 Prioritization 802.1Q VLAN Tagging, Double VLAN Tagging 802.3ac Frame Extensions for VLAN Tagging 802.3ae 10GbE 802.3ak 10GbE (10GBASE-CX4) 802.3x Flow Control MTU 9,252 bytes | 802.1p L2 Prioritization 802.1Q VLAN Tagging, Double VLAN Tagging 802.3ab Gigabit Ethernet (1000BASE-T) 802.3ac Frame Extensions for VLAN Tagging 802.3at Power over Ethernet 802.3i Ethernet (10BASE-T) 802.3u Fast Ethernet (100BASE-TX) 802.3x Flow Control MTU 9,252 bytes | 802.1p L2 Prioritization 802.1Q VLAN Tagging, Double VLAN Tagging 802.3ab Gigabit Ethernet (1000BASE-T) 802.3ac Frame Extensions for VLAN Tagging 802.3ae 10GbE 802.3af Power over Ethernet 802.3i Ethernet (10BASE-T) 802.3u Fast Ethernet (100BASE-TX, 100BASE-FX) 802.3x Flow Control 802.3z Gigabit Ethernet (1000BASE-X) MTU 9,252 bytes | 802.1p L2 Prioritization 802.1Q VLAN Tagging, Double VLAN Tagging 802.3ab Gigabit Ethernet (1000BASE-T) 802.3ac Frame Extensions for VLAN Tagging 802.3af Power over Ethernet 802.3i Ethernet (10BASE-T) 802.3u Fast Ethernet (100BASE-TX) 802.3x Flow Control MTU 9,252 bytes |
| Maximum power consumption and thermal | 120W (409 BTU/h) | 105W (358 BTU/h) | 120W (409 BTU/h) | 100W (341 BTU/h) |
| Physical | Occupies a single slot in the Dell C7004/C7008 chassis Dimensions 1.75 h x 15.25 w x 13.75" d (4.45 h x 38.74 w x 34.93 cm d) | | | |
| | Weight 5.31 lbs (2.41 kg) | 5.56 lbs (2.53 kg) | 5.31 lbs (2.41 kg) | Weight 5.56 lbs (2.53 kg) |
| Max operating specifications | Operating temperature: 32° to 104°F (0° to 40°C) Operating altitude: No performance degradation to 10,000 ft (3,048 m) Operating humidity: 5 to 85%, non-condensing | | | |
| Max non-operating specifications | Operating temperature: -40° to 158°F (-40° to 70°C) Operating altitude: 15,000 ft (4,572 m) Operating humidity: 5 to 95%, non-condensing | | | |



| | Dell Networking C-Series 48-port 10/100/1000Base-T Line Card | Dell Networking C-Series Gigabit Ethernet 48-port SFP Line Card |
|---|--|--|
| |  |  |
| Description | The 48-port 10/100/1000Base-T line card provides high density networks with up to 384 line-rate, non-blocking 10/100/1000Base-T Ethernet ports in a single chassis. | The 48-port Gigabit Ethernet line card with pluggable SFP modules support distances up to 80 km over fiber, and pluggable 1000Base-T modules support distances up to 100 m over Cat5/6 UTP. 100Base-FX SFP modules support distances up to 2 km, providing a flexible solution for applications spanning the LAN, MAN and WAN in mixed fiber/copper and mixed speed installations. |
| Key features | Up to 384 10/100/1000Base-T ports in a single chassis with Line-rate, non-blocking performance Integrated Time Domain Reflectometer (TDR) to easily monitor and isolate faults on copper wiring infrastructure 5 microsecond switching latency under full load for 64 byte frames Per-port status and activity LEDs | Up to 384 line-rate, nonblocking Gigabit Ethernet ports in a single chassis Flexible solution for 100Base-FX, 1000Base-SX, 1000Base-LX, 1000Base-ZX and 1000Base-T applications 5 microsecond switching latency under full load for 64 byte frames Per-port status and activity LEDs |
| Ports | | |
| 10/100/1000Base-T | 48 | none |
| 1GbE (Fiber) | none | 48 SFP |
| 10GbE | none | none |
| 40GbE | none | none |
| PoE/PoE+ ports | none | none |
| Optics and cables (sold separately) | | Transceiver, Qualified 100Base-FX Ethernet SFP optics module, LC connector Transceiver, Qualified SX GbE SFP optics module, LC connector Transceiver, Qualified LX GbE SFP optics module, LC connector Transceiver, Qualified ZX GbE SFP optics module, LC connector Transceiver, Qualified 1000Base-T GbE SFP module, RJ45 connector) |
| IEEE compliance | 802.1p L2 Prioritization 802.1Q VLAN Tagging, Double VLAN Tagging 802.3ab Gigabit Ethernet (1000Base-T) 802.3ac Frame Extensions for VLAN Tagging 802.3i Ethernet (10Base-T) 802.3u Fast Ethernet (100Base-TX) 802.3x Flow Control MTU 9,252 bytes | 802.1p L2 Prioritization 802.1Q VLAN Tagging, Double VLAN Tagging 802.3ab Gigabit Ethernet (1000Base-T) 802.3ac Frame Extensions for VLAN Tagging 802.3u Fast Ethernet (100Base-FX) 802.3x Flow Control 802.3z Gigabit Ethernet (1000Base-X) MTU 9,252 bytes |
| Maximum power consumption and thermal | 100W (341 BTU/h) | 130W (444 BTU/h) |
| Physical | Occupies a single slot in the Dell C7004/C7008 chassis Dimensions 1.75 x 15.25 x 13.75" (4.45 x 38.74 x 34.93 cm) (H x W x D) Weight 5.31 lbs (2.41 kg) | |
| Max operating specifications | Operating temperature: 32° to 104°F (0° to 40°C) Operating altitude: No performance degradation to 10,000 ft (3,048 m) Operating humidity: 5 to 85%, non-condensing | |
| Max non-operating specifications | Operating temperature: -40° to 158°F (-40° to 70°C) Operating altitude: 15,000 ft (4,572 m) Operating humidity: 5 to 95%, non-condensing | |

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