



Dell Networking X-Series

1/10GbE switches with an intuitive GUI designed to optimize cloud and onsite network applications

The Dell Networking X-Series is a family of smart managed 1GbE and 10GbE Ethernet switches designed for small and medium businesses who crave enterprise-class network control fused with consumer-like ease. X-Series switches have a variety of port counts, PoE options and deployment choices. Setup and management are greatly simplified with an intuitive GUI and hardware design. A broad set of models means deploying capacity on your terms, including the compact 8-port unit designed for desk, wall or ceiling mounting with a smart design.

Practical innovations for small networks

Powerful tools inside an elegant interface with app-like functionality make X-Series switches a pleasure to use. Familiar commands and alerts similar to PCs and servers means there is less jargon to learn and more knowledge to gain. Connect, auto-configure, and power VoIP phones and wireless access points with PoE options.

Sleek navigation with efficient and instinctual work flow

The design of everything from navigation and clicks to menu structures and help tips was inspired by the way IT pros think and work. Streamlined tools, step-by-step wizards and a concise, informative dashboard make switch configuration and calibration fast and accurate. Common tasks, alerts, port status and network visualization are on one beautiful dashboard screen.

Unmatched traffic visibility and real-time control

Optimize cloud services and onsite network applications with security and traffic priority features. See network traffic and move from monitoring to resolving in one continuous sequence. Unique multi-port selection for batch routines plus port profiles for common devices eliminate extra steps and configuration errors.

Lifetime Limited Warranty

Dell Networking X-series switches are backed by an industry-leading, lifetime warranty guaranteeing basic hardware service. X-series switches not only provide the quality, reliability and capability you expect from Dell, but also peace of mind that comes with a true lifetime warranty. Details at Dell.com/lifetimewarranty.

Key features

- 1 GbE and 10GbE switch family
 - » Compact, fanless 1GbE 8, 18, and 26 port switches with optional Power over Ethernet (PoE/PoE+) support
 - » PoE-powered 8-port switch for flexible office placement (non-PoE model)
 - » Half rack width 26- and 18-port switches with two dedicated 1GbE SFP uplink ports
 - » Rack width 52-port switches with four dedicated 10GbE SFP+ uplink ports
 - » 10GbE 12-port model for high-speed server connect or network aggregation
 - » Layer 2+ IPV4 and IPV6 functionality including static routing
- Revolutionary GUI design for ease of setup and “actionable monitoring”
 - » Powerful tools inside an elegant interface with app-like functionality
 - » Streamlined tools, step-by-step wizards and a customizable dashboard
 - » Common tasks, alerts, port status and network visualization on a single dashboard
 - » Optimize cloud services and onsite network applications with security and traffic priority features
 - » See network traffic and move from monitoring to resolving in one continuous sequence
 - » Multi-port selection for batch routines and port profiles for common devices eliminate extra steps and configuration errors
- Tandem rack tray accommodates two half rack-width switches in 1RU
- Dell Fresh Air 2.0 capable performance with energy-efficient operation
- Patented locking plug and console port

Legend: **S** — Standard, **OA** — Option Available, **N** — Not Available

| Port attributes | X1008/P | X1018/P | X1026/P | X1052/P | X4012 |
|--|--|--|--|--|---|
| 10/100/1000Base-T auto-sensing GbE switching | 8 | 16 | 24 | 48 | N |
| SFP/SFP+ fiber ports | N | 2 SFP | 2 SFP | 4 SFP/SFP+ | 12 SFP/SFP+ |
| Power over Ethernet (PoE) ports | 8 PoE, up to 123W total (X1008P) | 16 PoE, up to 246W total (X1018P) | 24 PoE/PoE+, up to 369W total (X1026P) | 24 PoE/PoE+, up to 369W total (X1052P) | N |
| PoE powered | S (X1008) | N | N | N | N |
| Power reduction for short cables or inactive connections | S | S | S | S | N |
| Autonegotiation for speed, duplex mode and flow control | S | S | S | S | N |
| Auto-MDI/MDIX mode and flow control | S | S | S | S | N |
| Performance | X1008/P | X1018/P | X1026/P | X1052/P | X4012 |
| Switch fabric capacity | Up to 16Gbps | Up to 36Gbps | Up to 52Gbps | Up to 176Gbps | Up to 240Gbps |
| Forwarding rate | 11.9Mpps | 26.8Mpps | 38.7Mpps | 131Mpps | 178.6Mpps |
| MAC addresses | 16K | 16K | 16K | 16K | 32K |
| Packet buffer memory | 1MB | 1MB | 1MB | 1MB | 1MB |
| Quality of service | X1008/P | X1018/P | X1026/P | X1052/P | X4012 |
| Priority queues per port | 4 | 4 | 4 | 8 | 8 |
| Management | X1008/P | X1018/P | X1026/P | X1052/P | X4012 |
| Web GUI interface and SNMP monitoring; limited CLI | S | S | S | S | S |
| Chassis | X1008/P | X1018/P | X1026/P | X1052/P | X4012 |
| Dimensions (H x W x D) | 1.67 in x 5.95 in x 5.95 in (42.5 mm x 151.13 mm x 151.13 mm) | X1018: 1.62 in x 8.23 in x 9.84 in (41.25 mm x 209.0 mm x 250.0 mm) X1018P: 1.62 in x 8.23 in x 17.72 in (41.25 mm x 209.0 mm x 450.0 mm) | X1026: 1.62 in x 8.23 in x 9.84 in (41.25 mm x 209.0 mm x 250.0 mm) X1026P: 1.62 in x 8.23 in x 17.72 in (41.25 mm x 209.0 mm x 450.0 mm) | X1052: 1.71 in x 17.1 in x 10.63 in (43.5 mm x 434.0 mm x 270.0 mm) X1052P: 1.71 in x 17.1 in x 16.0 in (43.5 mm x 434.0 mm x 407.0 mm) | 1.62 in x 8.23 in x 9.84 in (41.25 mm x 209.0 mm x 250.0 mm) |
| Rack mount | N | 1RU, half width | 1RU, half width | 1RU | 1RU, half width |
| Unit weight | X1008: 0.80 Kg X1008P: 0.83 Kg | X1018: 1.76 Kg X1018P: 3.21 Kg | X1026: 1.88 Kg X1026P: 3.80 Kg | X1052: 3.80 Kg X1052P: 6.00 Kg | 2.03 Kg |
| Fans | Fanless design | X1018: Fanless design X1018P: 2 (rear) | X1026: Fanless design X1026P: 2 (rear) | X1052: 2 (rear) X1052P: 4 (rear) | 2 (rear) |
| Environmental operating conditions | X1008/P | X1018/P | X1026/P | X1052/P | X4012 |
| 100% lead-free | Yes | Yes | Yes | Yes | Yes |
| Operating temperature | 0° to 50°C (32° to 122°F) | 0° to 50°C (32° to 122°F) | 0° to 50°C (32° to 122°F) | 0° to 50°C (32° to 122°F) | 0° to 50°C (32° to 122°F) |
| Storage temperature | -20° to 70°C (-4° to 158° F) | -20° to 70°C (-4° to 158° F) | -20° to 70°C (-4° to 158° F) | -20° to 70°C (-4° to 158° F) | -20° to 70°C (-4° to 158° F) |
| Operating relative humidity | 10% to 90% non-condensing | 10% to 90% non-condensing | 10% to 90% non-condensing | 10% to 90% non-condensing | 10% to 90% non-condensing |
| Storage relative humidity | 10% to 80% non-condensing | 10% to 80% non-condensing | 10% to 80% non-condensing | 10% to 80% non-condensing | 10% to 80% non-condensing |
| Acoustic (max dB @ 50°C) | N | X1018: N X1018P: 54.6 | X1026: N X1026P: 55.3 | X1052: 56.7 X1052P: 58.2 | 55.6 |

| Power | X1008/P | X1018/P | X1026/P | X1052/P | X4012 |
|----------------|--|--------------------------------|--------------------------------|--------------------------------|-------|
| Power supply | X1008: 24W (external) X1008P: 150W (external) | X1018: 40W X1018P: 280W | X1026: 40W X1026P: 450W | X1052: 100W X1052P: 525W | 100W |
| Power (max) | X1008: 9.9W X1008P: 141.8W | X1018: 14.7W X1018P: 289.9W | X1026: 17.5W X1026P: 452.8W | X1052: 60.2W X1052P: 475W | 41.7W |
| Power (BTU/hr) | X1008: 33.7 X1008P: 484.1 | X1018: 50.2 X1018P: 990 | X1026: 59.8 X1026P: 1564.3 | X1052: 205.2 X1052P: 1620.8 | 142.2 |



Transceivers

SFP, 1000BASE-T
 SFP, 1000BASE-SX, 850nm wavelength, up to 550m reach
 SFP, 1000BASE-LX, 1310nm wavelength, up to 10km reach
 SFP, 1000BASE-ZX, 1550nm wavelength, up to 80km reach
 SFP+, 10GbE, USR ("SR-Lite"), 850nm wavelength, up to 100m reach
 SFP+, 10GbE, SR, 850nm wavelength, up to 300m reach
 SFP+, 10GbE, LR, 1310nm wavelength, up to 10km reach
 SFP+, 10GbE, ER, 1550nm wavelength, up to 40km reach

Cables

Dell Networking cable, SFP+ to SFP+, 10GbE, copper twinax direct attach cable, 0.5m, 1m, 3m, 5m and 7m*

*X4012 does not support 7m cable

Optional Tandem Tray Mounting Kit

1RU tray to accommodate two half rack width X-series switches (kit includes L-brackets for 800mm deep rack/cabinet)
 Size (1RU, H x W x D): 1.7in x 17.7in x 19.1in
 (43.7mm x 449.4mm x 486.4mm)
 Approximate weight: 8.3lbs (3.8kg)

Port attributes

Supports Virtual Cable Diagnostics by Marvell™ and fiber transceiver diagnostics
 Integrated LEDs for improved visual monitoring and analysis

VLAN

Supports up to 4096 port-based VLANs. Honors all 4096 VLAN tags

Quality of service

Honor 802.1p values and honor IP DSCP values
 Supports strict priority and configurable weighted round robin (WRR) scheduling across queues

Link aggregation

Industry-standard link aggregation adhering to IEEE 802.3ad standards (static and dynamic, LACP)
 Supports 12 link aggregation groups and up to 8 ports per group

Management

Web based GUI management
 Local password and restricted IP addresses
 Port mirroring
 Internal DHCP Server
 DHCP client support
 Port statistics available through industry-standard RMON
 Jumbo frame support for packets up to 9,000 bytes
 Broadcast storm control
 Uploadable switch software via USB
 Uploadable configurations via USB
 Configurable as web-managed switch

IEEE standards support

| | |
|--------------|--|
| IEEE 802.1D | Spanning Tree, GARP and GVRP |
| IEEE 802.1p | Traffic Prioritization |
| IEEE 802.1Q | VLAN Trunking |
| IEEE 802.1w | Rapid Spanning Tree Protocol |
| IEEE 802.1S | Multiple Spanning Tree Protocol |
| IEEE 802.1t | IEEE802.1D maintenance |
| IEEE 802.1v | VLAN Classification by Protocol & Port |
| IEEE 802.1x | Port Based Network Access Control |
| IEEE 802.3 | 10 Mbps Ethernet |
| IEEE 802.3i | 10base -T |
| IEEE 802.3u | 100Base-T Ethernet |
| IEEE 802.3z | 1000 Mbps Ethernet |
| IEEE 802.3ab | 1000Base-T |
| IEEE 802.3ac | Frame extension for VLAN tags |
| IEEE 802.3ad | Link Aggregation Control Protocol |
| IEEE 802.3ae | 10 Gig Ethernet |
| IEEE 802.2 | |
| IEEE 802.3x | Flow Control |
| IEEE 802.3i | |
| IEEE 802.1v | VLAN Classification by Protocol & Port |
| IEEE 802.1ab | LLDP |

ANSI/TIA-1057-2006 LLDP-MEDW

IETF Internet drafts

draft-ietf-hubmib-etherif-mib-v3-00. Will obsolete RFC 2665
 txt

IETF standards supported

| | |
|----------|--|
| RFC 768 | UDP |
| RFC 783 | TFTP v2 |
| RFC 791 | IP |
| RFC 792 | ICMP |
| RFC 793 | TCP |
| RFC 813 | Window & Ack Strategy |
| RFC 879 | TCP Max. Segment Size Etc |
| RFC 896 | IP/TCP Congestion Control |
| RFC 826 | ARP |
| RFC 854 | Telnet |
| RFC 855 | Telnet Option Specification |
| RFC 856 | Telnet Binary Transmission |
| RFC 858 | Telnet Suppress Go-Ahead option |
| RFC 894 | IP over Ethernet Frames |
| RFC 919 | Broadcast Ethernet Frames |
| RFC 922 | Broadcast Ethernet Frames with Subnets |
| RFC 920 | Domain Requirements |
| RFC 950 | Internet Standard subnetting procedure |
| RFC 951 | Bootp |
| RFC 1027 | Using ARP to implement transparent subnet gateways |
| RFC 1042 | A Standards for transmission of IP datagrams over IEEE 802 Networks |
| RFC 1071 | Computing the Internet Checksum |
| RFC 1112 | Internet Gateway Management |
| RFC 1123 | IGMPv1 snooping |
| RFC 1141 | Requirements for Internet Hosts |
| RFC 1155 | Incremental Updating of the Internet Checksum |
| RFC 1157 | Structure and Identification of Management Information (SMI) |
| RFC 1157 | Simple Network Management Protocol (SNMP) version 1 |
| RFC 1350 | Trivial File Transfer Protocol (TFTP) Rev. 2 |
| RFC 1518 | CIDR-ARCH |
| RFC 1519 | CIDR-STRA |
| RFC 1533 | DHCP options and BOOTP vendor extensions |
| RFC 1541 | Dynamic Host Configuration Protocol (DHCP) |
| RFC 1542 | Clarifications and Extensions for the Bootstrap Protocol |
| RFC 1612 | DNS Client |
| RFC 1624 | Computation of Internet Checksum via Incremental update |
| RFC 1700 | Assigned Numbers |
| RFC 1812 | Requirements for IP version 4 routers |
| RFC 1867 | Form-based File Upload in HTML |
| RFC 2030 | Simple Network Time Protocol (SNTP) Version 4 for IPv4, IPv6 and OSI |
| RFC 2131 | Dynamic Host Configuration Protocol |
| RFC 2132 | DHCP Options and BootP vendor Extensions |
| RFC 2236 | IGMPv2 snooping |
| RFC 2246 | TLS protocol, version 1.0 |
| RFC 2284 | PPP Extensible Authentication Protocol, EAP, March 1998 |
| RFC 2616 | Hypertext Transfer Protocol -- HTTP/1.1 |
| RFC 2818 | HTTP Over TLS |
| RFC 2865 | Radius |
| RFC 2866 | Radius Accounting |
| RFC 2867 | RADIUS Tunnel Accounting |
| RFC 2868 | RADIUS Tunnel Authentication Attributes |
| RFC 2869 | RADIUS Extensions |
| RFC 2925 | Definitions of Managed Objects for Remote Ping Traceroute, and Lookup Operations |
| RFC 2933 | IGMP MIB |
| RFC 3046 | DHCP Relay Agent Information Option |
| RFC 3069 | VLAN Aggregation for efficient IP Address allocation |
| RFC 3164 | BSD Syslog Protocol |
| RFC 3376 | IGMPv3 snooping |
| RFC 3580 | RADIUS |

IETF standards Management support

| | |
|----------|---|
| RFC 1212 | MIB Definition |
| RFC 1213 | MIB II |
| RFC 1215 | Standard Traps |
| RFC 1286 | Bridge MIB |
| RFC 1442 | SMIPv2 (SNMPv2 MIB) |
| RFC 1451 | Manager-to-Manager MIB |
| RFC 1493 | Definitions of Managed Objects for Bridges |
| RFC 1573 | Evolution of Interfaces |
| RFC 1643 | Etherlike MIB |
| RFC 1757 | Remote Network Monitoring (RMON) MIB |
| RFC 1901 | Community based SNMPv2 |
| RFC 1907 | SNMP v2 MIB |
| RFC 2011 | Internet Protocol (IP) MIB using SMIPv2 |
| RFC 2012 | Transmission Control Protocol (TCP) MIB using SMIPv2 |
| RFC 2013 | User Datagram Protocol (UDP) MIB using SMIPv2 |
| RFC 2233 | Interfaces Group using SMIPv2 |
| RFC 2358 | Etherlike |
| RFC 2576 | Coexistence between Version 1, Version 2, and Version 3 of the Internet-standard Network Management Framework |
| RFC 2579 | Textual Conventions for SMIPv2 |
| RFC 2580 | Conformance Statements for SMIPv2 |
| RFC 2618 | RADIUS MIB |
| RFC 2665 | Ethernet-like Interface Types MIB |
| RFC 2666 | Identification of Ethernet Chip sets |
| RFC 2674 | MIB for Bridge with Traffic Classes, Multicast Filtering and VLAN Extension (IEEE802.1p/q MIB) |
| RFC 2737 | ENTITY-MIB |
| RFC 2819 | RMON MIB |
| RFC 2863 | Interface Evolution |
| RFC 3410 | Applicability Statements for SNMP |
| RFC 3411 | An Architecture for Describing Simple Network Management Protocol (SNMP) Management Frameworks |
| RFC 3412 | Message Processing and Dispatching for the Simple Network Management Protocol (SNMP) |
| RFC 3413 | Simple Network Management Protocol (SNMP) Applications |
| RFC 3414 | User-based Security Model (USM) for version 3 of the Simple Network Management Protocol (SNMPv3) |
| RFC 3415 | View-based Access Control Model (VACM) for the Simple Network Management Protocol (SNMP) |
| RFC 3584 | Coexistence between Version 1, Version 2, and Version 3 of SNMP |
| RFC 4330 | Simple Network Time Protocol (SNTP) Version 4 for IPv4, IPv6 and OSI |
| | Draft-ietf-magma-snoop-01.txt |
| | draft-ietf-syslog-device-mib-01.txt |
| | draft-ietf-bridge-8021x-03.txt |

IETF standard SNMP traps supported

| | |
|----------|--|
| RFC 1157 | linkDown, linkupUp, authentication Failure, coldstart, ...Traps |
| RFC 1215 | Standard Traps |
| RFC 1493 | newRoot, topologyChange Traps |
| RFC 3416 | Version 2 of the Protocol Operations for the Simple Network Management Protocol (SNMP) |
| RFC 3417 | Transport Mappings for SNMP |
| RFC 3418 | MIB for SNMP |

IEEE MIB support

LAG MIB Support for 802.3ad functionality

OEM friendly

With an easy to remove Dell badge, your networking device can look as if it was designed by you. Details at Dell.com/OEM.

For more information, visit Dell.com/Networking.

