



## 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](http://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 802.1x 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-LLDP-MEDW

2006

## IETF Internet drafts

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

## 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

IGMPv1 snooping

RFC 1123 Requirements for Internet Hosts

RFC 1141 Incremental Updating of the Internet Checksum

RFC 1155 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 SMIv2 (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 SMIv2

RFC 2012 Transmission Control Protocol

(TCP) MIB using SMIv2

RFC 2013 User Datagram Protocol (UDP)

MIB using SMIv2

RFC 2233 Interfaces Group using SMIv2

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 SMIv2

RFC 2580 Conformance Statements for SMIv2

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](http://Dell.com/OEM).

For more information, visit [Dell.com/Networking](http://Dell.com/Networking).

