DELL Technologies

S4100 SPEC SHEET

DELL EMC POWERSWITCH S4100-ON

High-performance open networking top-of-rack switches with multirate Gigabit Ethernet and unified ports

The S4100-ON 10GbE switches comprise DellTechnologies' latest disaggregated hardware and software data center networking solutions, providing state-of-the-art 100GbE uplinks, fibre channel connectivity and a broad range of functionality to meet the growing demands of today's data center environment. These innovative, next-generation top-of-rack open networking switches offer optimum flexibility and cost-effectiveness for the enterprise, midmarket and tier 2 cloud service providers with demanding compute and storage traffic environments.

The compact S4100-ON models provide industry-leading density with up to 48 ports of 10GbE or up to 48 ports of 10GBaseT ports, 2 ports of 40GbE and 4 ports of 100GbE in a 1RU form factor. The S4148U-ON model can support up to 28 8/16G fibre channel ports, or 16 ports of 32G* fibre channel ports. The S4112-ON is a half-rack width model that supports up to 12 ports of 10GbE or 12 ports 10GBaseT, and 3 ports of 100GbE.

Using industry-leading hardware and a choice of Dell EMC SmartFabric OS10 or select 3rd party network operating systems and tools, the S4100-ON Series offers flexibility by provision of configuration profiles and delivers non-blocking performance for workloads sensitive to packet loss. The compact S4100-ON models provide multirate speed, enabling denser footprints and simplifying migration to 100Gbps. Also unique to the S4100-ON series is the ability to meet the demands of converged and virtualized data centers by offering unified ports (S4148U) and hardware support for L2 and L3 VXLAN Gateway. Priority-based flow control (PFC), data center bridge exchange (DCBX) and enhanced transmission selection (ETS) make the S4100-ON ideally suited for DCB environments. Dell EMC PowerSwitch S4100-ON switches support the open source Open Network Install Environment (ONIE) for zero touch installation of Dell EMC SmartFabric OS10 networking operating system, as well as of alternative network operating systems

Maximum performance and functionality

The S4100-ON series are high-performance, multifunction, 1/10/25/40/50/100 GbE and 8/16/32G FC top-of-rack (ToR) switches purpose-built for applications in high-performance data center, cloud and computing environments. Architectural features to optimize data center network flexibility, efficiency and availability include IO panel to PSU airflow or PSU to IO panel airflow for hot/cold aisle environments and redundant, hot-swappable power supplies and fans.

Key applications

- Organizations looking to enter the software-defined data center era with a choice of networking technologies designed to maximize flexibility
- Multi-functional 1/10/25/40/50/100 GbE switching in High Performance Computing Clusters or other business-sensitive deployments requiring the highest bandwidth. High-density 1/10 GbE ToR server access in high-performance data center environments
- iSCSI and FC storage deployment, including DCB converged lossless transactions
- Small-scale data center fabric implementation via the S4100-ON switch in leaf and spine along with S-Series 1/10GbE ToR switches
- VXLAN layer 2/layer 3 gateway support

Key features

- 1RU high-density 10/40/100 GbE ToR switches with up to 48 ports of 10 GbE (SFP+) or up to 48 ports of 10GBaseT ports, or up to 28 ports of 8/16 fibre channel, two ports of 40 GbE (QSFP+), and up to four ports of 100GbE (QSFP28) or four ports of 8/16/32G fibre channel
- The S4112 is a 1RU, half-rack width 10/100GbE ToR switch with up to 12 ports of 10GbE (SFP+) or up to 12 ports of 10GBaseT ports, and up to three ports of 100GbE (QSFP28)
- Multi-rate 100GbE ports support 10/25/40/50 GbE. 40GbE ports support 10GbE. 10GbE ports support 1GbE. Up to four different simultaneous speeds are possible in a given profile.
- Supports dynamic reconfiguration of unified ports on S4148U product as 10GbE or 8/16G FC on SFP+ ports, and 25GbE or 16/32Gb FC on QSFP28 ports
- 1.76Tbps (full-duplex) non-blocking, cut-through switching fabric delivers line-rate performance under full load on S4148F-ON, S4148FE-ON, S4148T-ON and S4148U-ON.
- 960Gbps (full-duplex) non-blocking, cut-through switching fabric delivers line-rate performance under full load on S4128F-ON and S4128T-ON
- 840Gbps (full-duplex) non-blocking, cut-through switching fabric delivers line-rate performance under full load on S4112F-ON and S4112T-ON
- VXLAN gateway functionality support for bridging and routing the non-virtualized and the virtualized overlay networks with line rate performance
- Converged Network support with DCB
- IO panel to PSU airflow or PSU to IO panel airflow
- Redundant, hot-swappable power supplies and fans (S4112-ON has redundant, fixed power supplies and fans)
- Support for 10GBASE-LRM optics over OM1/OM2 fiber on S4148FE-ON product (not supported on other products in S4100 product family)
- IEEE 1588v2 supported on 48 port models

* Not line rate

Key Features with Dell EMC SmartFabric OS10

- Consistent DevOps framework across compute, storage and networking elements
- Standard networking features, interfaces and scripting functions for legacy network operations integration
- Standards-based switching hardware abstraction via Switch Abstraction Interface (SAI)
- Pervasive, unrestricted developer environment via Control Plane Services (CPS)
- OS10 Enterprise Edition software enables Dell Technologies layer 2 and 3 switching and routing protocols with integrated IP services, quality of service, manageability and automation features
- OS10 supports Precision Time Protocol (PTP, IEEE 1588v2) to synchronize clocks on network devices.
- Leverage common open source tools and best practices (data models, commit rollbacks)
- Increase VM Mobility region by stretching L2 VLAN within or across two DCs with unique VLT capabilities
- Scalable L2 and L3 Ethernet Switching with QoS, ACL and a full complement of standards based IPv4 and IPv6 features including OSPF, BGP and PBR
- Enhanced mirroring capabilities including local mirroring, Remote Port Mirroring (RPM), and Encapsulated Remote Port Mirroring (ERPM)
- Converged network support for Data Center Bridging, with priority flow control (802.1Qbb), ETS (802.1Qaz), DCBx and iSCSI TLV
Enhanced mirroring capabilities including local mirroring, Remote Port Mirroring (RPM), and Encapsulated Remote Port Mirroring (ERPM)
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	S4112F-ON	S4112T-ON	S4128F-ON	S4128T-ON	S4148F-ON	S4148FE-ON	S4148T-ON	S4148U-ON
Ports	12xSFP+ 3xQSFP28	12x10GbT 3xQSFP28	28xSFP+ 2xQSFP28	28x10GbT 2x QSFP28	48xSFP+ 2xQSFP+ 4xQSFP28	48xSFP+ 2xQSFP+ 4xQSFP28	48x10GbT 2xQSFP+ 4xQSFP28	48xSFP+ 2xQSFP+ 4xQSFP28
Unified port								●
Max 10GbE density	24 (12 SFP+ and 12 via QSFP28 breakout)	24 (12 10GbT and 12 via QSFP28 breakout)	36 (28 SFP+ and 8 via QSFP28 breakout)	36 (28 10GbT and 8 via QSFP28 breakout)	72 (48 SFP+ and 24 via QSFP28 breakout)	72 (48 SFP+ and 24 via QSFP28 breakout)	72 (48 10GbT and 24 via QSFP28 breakout)	72 (48 SFP+ and 24 via QSFP28 breakout)
Max 25GbE density	12 via QSFP28 breakout	12 via QSFP28 breakout	8 via QSFP28 breakout	8 via QSFP28 breakout	16 via QSFP28 breakout	16 via QSFP28 breakout	16 via QSFP28 breakout	16 via QSFP28 breakout
Max 40GbE density	3	3	2	2	6	6	6	6
Max 50GbE density	6	6	4	4	8	8	8	8
Max 100GbE density	3	3	2	2	4	4	4	4
Max FC 8G/16G ports (oversubscribed)	0	0	0	0	0	0	0	40
Max FC 16G line rate	0	0	0	0	0	0	0	28
Max FC 32G ports (oversubscribed)	0	0	0	0	0	0	0	16
Max FC 32G line rate	0	0	0	0	0	0	0	8
Switching capacity	840Gbps	840Gbps	960Gbps	960Gbps	1.76Tbps	1.76Tbps	1.76Tbps	1.76Tbps
Throughput	630Mpps	630Mpps	720Mpps	720Mpps	1320Mpps	1320Mpps	1320Mpps	1320Mpps
LRM optics support						●		
1588v2 PTP timing					●	●	●	●
Max power consumption	180W	200W	260W	300W	370W	400W	440W	460W
Typical operating power	90W	120W	160W	250W	200W	240W	320W	300W
Number of fan trays	Fixed	Fixed	4	4	4	4	4	4
Fans per fan tray	3	3	1	1	1	1	2	2
Weight	8.30lbs	8.45lbs	19.66 lbs (8.92 kg)	20.67 lbs (9.38 kg)	20.15 lbs (9.14 kg)	20.85 lbs (9.46 kg)	22.37 lbs (10.15 kg)	20.52 lbs (9.31 kg)
Max thermal output	614 BTU/h	682 BTU/h	886 BTU/h	1,023 BTU/h	1261 BTU/h	1,364 BTU/h	1,500 BTU/h	1,568 BTU/h

● Supported

Product	Description
S4100-ON	S4112F, 12x 10GbE SFP+, 3x 100GbE QSFP28, 2x AC Fixed PSU, 3x Fixed Fan, I/O Panel to PSU Airflow S4112F, 12x 10GbE SFP+, 3x 100GbE QSFP28, 2x AC Fixed PSU, 3x Fixed Fan, I/O PSU to I/O Panel Airflow S4112T, 12x 10GBASE-T, 3x 100GbE QSFP28, 2x AC Fixed PSU, 3x Fixed Fan, I/O Panel to PSU Airflow S4112T, 12x 10GBASE-T, 3x 100GbE QSFP28, 2x AC Fixed PSU, 3x Fixed Fan, I/O PSU to I/O Panel Airflow S4112F, 12x 10GbE SFP+, 3x 100GbE QSFP28, 2x DC Fixed PSU, 3x Fixed Fan, I/O Panel to PSU Airflow S4112F, 12x 10GbE SFP+, 3x 100GbE QSFP28, 2x DC Fixed PSU, 3x Fixed Fan, I/O PSU to I/O Panel Airflow S4112T, 12x 10GBASE-T, 3x 100GbE QSFP28, 2x DC Fixed PSU, 3x Fixed Fan, I/O Panel to PSU Airflow S4112T, 12x 10GBASE-T, 3x 100GbE QSFP28, 2x DC Fixed PSU, 3x Fixed Fan, I/O PSU to I/O Panel Airflow S4128F, 28x 10GbE SFP+, 2x 100GbE QSFP28, 2x AC PSU, 4x Fan module, I/O Panel to PSU Airflow S4128F, 28x 10GbE SFP+, 2x 100GbE QSFP28, 2x AC PSU, 4x Fan module, PSU to I/O Panel Airflow S4128T, 28x 10GBASE-T, 2x 100GbE QSFP28, 2x AC PSU, 4x Fan module, I/O Panel to PSU Airflow S4128T, 28x 10GBASE-T, 2x 100GbE QSFP28, 2x AC PSU, 4x Fan module , PSU to I/O Panel Airflow S4148F, 48x 10GbE SFP+, 2x QSFP+, 4x 100GbE QSFP28, 2x AC PSU, 4x Fan module, I/O Panel to PSU Airflow S4148F, 48x 10GbE SFP+, 2x QSFP+, 4x 100GbE QSFP28, 2x AC PSU, 4x Fan module, PSU to I/O Panel Airflow S4148FE, 48x 10GbE SFP+, 2x QSFP+, 4x 100GbE QSFP28, 2x AC PSU, 4x Fans, I/O Panel to PSU Airflow S4148FE, 48x 10GbE SFP+, 2x QSFP+, 4x 100GbE QSFP28, 2x AC PSU, 4x Fan module, PSU to I/O Panel Airflow S4148T, 48x 10GBASE-T, 2x QSFP+, 4x 100GbE QSFP28, 2x AC PSU, 4x Fan module, I/O Panel to PSU Airflow S4148T, 48x 10GBASE-T, 2x QSFP+, 4x 100GbE QSFP28, 2x AC PSU, 4x Fan module, PSU to I/O Panel Airflow S4148U, 24x Unified port SFP+, 24x 10GbE SFP+, 2x QSFP+, 4x Unified port QSFP28, 2x AC PSU, 4x Fan module, I/O Panel to PSU Airflow S4148U, 24x Unified port SFP+, 24x 10GbE SFP+, 2x QSFP+, 4x Unified port QSFP28, 2x AC PSU, 4x Fan module, PSU to I/O Panel Airflow
Redundant power supplies (not applicable to S4112)	S4100, AC Power Supply, IO Panel to PSU Airflow S4100, AC Power Supply, PSU to IO Panel Airflow S4100, DC Power Supply, IO Panel to PSU Airflow (available as custom kit) S4100, DC Power Supply, PSU to IO Panel Airflow (available as custom kit) S4100, HV DC Power Supply, IO Panel to PSU Airflow S4100, HV DC Power Supply, PSU to IO Panel Airflow
Fans (not applicable to S4112)	S4100 fan module, IO Panel to PSU Airflow S4100 fan module, PSU to IO Panel Airflow
Optics	Transceiver, 1000Base-T, 1GbE (SFP to RJ45) Transceiver, 10GbE, SR SFP+, short reach Transceiver, 10GbE, LR SFP+, long reach Transceiver, 10GbE, ER SFP+, extended reach Transceiver, 10GbE, ZR SFP+ extra extended reach 10G, Transceiver, 10GbE, USR, SFP+ Transceiver, 10GbE, LRM, SFP+ (for S4148FE only) Transceiver, 10GBASE-T use with QSA in QSFP+ port, 30m reach on CAT6a/7 Transceiver, 40GbE, SR4 optic QSFP+ Transceiver, 40GbE, eSR4 optic QSFP+ Transceiver, 40GbE, LR4 optic QSFP+ Transceiver, 40GbE, ER4 optics QSFP+ Transceiver, 40GbE, PSM4-LR MPO 10Km QSFP+ to LC Transceiver, 40GbE, LM4 / SM4 Duplex QSFP+ Transceiver, 100GbE, SR4 QSFP28 Transceiver, 100GbE, LR4 QSFP28 Transceiver, 100GbE, LR4Lite QSFP28 Transceiver, 100GbE, CWDM4 2Km QSFP28 Transceiver, 100GbE, PSM4 500m QSFP28 Transceiver, 100GbE, PSM4-IR, QSFP28 Transceiver, SFP+, 16Gbps Fibre Channel, SWL, 850nm, LC Duplex (S4148U model only) Transceiver, SFP+, 16Gbps Fibre Channel, LWL, 1310nm, LC SMF (S4148U model only) Transceiver, QSFP+, 4x16Gbps Fibre Channel, SW4, 850nm, MPO MMF (S4148U model only) Transceiver, QSFP28, 4x32Gbps Fibre Channel, SW4, 850nm, MPO MMF (S4148U model only)
Cables	40GbE, QSFP+ to QSFP+, active optical 40GbE, QSFP+ to QSFP+, passive DAC 40GbE, MTP to 4xLC optical breakout 40GbE, 4x10GbE, QSFP+ to 4xSFP+, passive DAC 100GbE, 4x25GbE, QSFP28 to 4xSFP28, passive DAC 100GbE, QSFP28 to QSFP28, active optical 100GbE, QSFP28 to QSFP28, passive DAC 100GbE, 2x50GbE, QSFP28 to 2xQSFP28, passive DAC, breakout

Physical

1 RJ45 console/management port with RS232 signaling
1 RJ45 micro-USB-B console port
1 RJ45 10/100/1000Base-T management Ethernet port
Size: 1 RU, 1.75"(h) x 17"(w) x 18"(d) (4.4cm (h) x 43.1cm (w) x 45.7cm (d))
S4112: 1.7"(h) x 8.28"(w) x 18"(d) (4.125cm (h) x 20.9cm (w) x 45cm (d)
Power supply: 100–240 VAC 50/60 Hz
Power supply (DC), applicable to S4412: rated -40 to -72 VDC
Max. current draw per system: 6A/5A at 100/120V
AC; 3A/2.5A at 200/240V AC
S4112: 2A/1.7A at 100/120V AC; 1A/0.8A at 200/240V AC
S4112 (DC): -40V/5A, -48V/4.2A, -72V/2.8A
Max. operating specifications:
Operating temperature: 41º to 104º F (5º to 40º C)
Operating humidity: 5 to 85% (RH), non-condensing
Max. non-operating specifications:
Storage temperature: -40º to 149ºF (-40º C to 65º C)
Storage humidity: 5 to 95% (RH), non-condensing

Redundancy

Hot swappable redundant power (not applicable to S4112)
Hot swappable redundant fans (not applicable to S4112)
Fixed, redundant power supply and fan for S4112

Performance

Packet buffer memory: 12MB
CPU memory: 4GB
MAC addresses: 272K (in Scaled L2 mode)
PVST: 128 instances
ARP table 200K (in Scaled
L3 host mode)
IPv4 routes: 200K (in Scaled
L3 routes mode)
IPv6 hosts: 64K
IPv6 routes: 130K (in Scaled L3 routes mode)
Multicast hosts: 8K
Link aggregation: 32 links per group, 128 groups
Layer 2 VLANs: 4K
Layer3 VLANs: 500
MSTP: 32 instances
LAG load balancing: Based on layer 2, IPv4 or IPv6 headers
L2 Ingress ACL: 6K
L2 Egress ACL: 1K
IPv4 Ingress ACL: 6K
IPv4 Egress ACL: 1K
IPv6 Ingress ACL: 3K
IPv6 Egress ACL: 500
Storage performance parameters
iSCSI Sessions: 255
iSCSI Target: 16
F-Port: Max F-Port Sessions: 526
F-Port: Max members in a zone: 526

Dell EMC SmartFabric OS10 Software Specifications

IEEE Compliance
802.1AB LLDP
TIA-1057 LLDP-MED
802.1s MSTP
802.1w RSTP
802.3ab Gigabit Ethernet (1000Base-T)
802.3ad Link Aggregation with LACP
802.3ae 10 Gigabit Ethernet (10GBase-X)
802.3ba 40 Gigabit Ethernet (40GBase-X)
802.3i Ethernet (10Base-T)
802.3u Fast Ethernet (100Base-TX)
802.3z Gigabit Ethernet (1000BaseX)
802.1D Bridging, STP
802.1p L2 Prioritization
802.1Q VLAN Tagging, GVRP
802.1Qbb PFC
802.1Qaz ETS
802.1s MSTP
802.1w RSTP
PVST+
802.1X Network Access Control
802.3ab Gigabit Ethernet (1000BASE-T) or breakout
802.3ac Frame Extensions for VLAN Tagging
802.3ad Link Aggregation with LACP
802.3ae 10 Gigabit Ethernet (10GBase-X)
802.3ba 40 Gigabit Ethernet (40GBase- SR4, 40GBase-CR4, 40GBase-LR4, 100GBase-SR10, 100GBase-LR4, 100GBase-ER4) on optical ports
802.3bj 100 Gigabit Ethernet
802.3u Fast Ethernet (100Base-TX) on mgmt ports
802.3x Flow Control
802.3z Gigabit Ethernet (1000Base-X) with QSA
ANSI/TIA-1057 LLDP-MED
Jumbo MTU support 9,216 bytes

Layer2 Protocols

802.1D Compatible
802.1p L2 Prioritization
802.1Q VLAN Tagging
802.1s MSTP
802.1w RSTP
802.1t RPVST+
802.3ad Link Aggregation with LACP

VLT (Virtual Link Trunking)

VLT Enhancements
Minloss Upgrades
VLT Proxy Gateway
RVPST over VLT
DCB, FSB, iSCSI over VLT
RSPAN over VLT

RFC Compliance

768 UDP
793 TCP
854 Telnet
959 FTP
1321 MD5
1350 TFTP
2474 Differentiated Services
2698 Two Rate Three Color Marker
3164 Syslog
4254 SSHv2

General IPv4 Protocols

791 IPv4
792 ICMP
826 ARP
1027 Proxy ARP
1035 DNS (client)
1042 Ethernet Transmission
1191 Path MTU Discovery
1305 NTPv4
1519 CIDR
1588v2 PTP support
1812 Routers
1858 IP Fragment Filtering
2131 DHCP (server and relay)
5798 VRRP
3021 31-bit Prefixes
3046 DHCP Option 82 (Relay)
1812 Requirements for IPv4 Routers
1918 Address Allocation for Private Internets
2474 Diffserv Field in IPv4 and Ipv6 Headers
2597 Assured Forwarding PHB Group
3195 Reliable Delivery for Syslog
3246 Expedited Forwarding PHB
4364 VRF-lite (IPv4 VRF with OSPF and BGP)
COPP: Control Plane Policing
Policy Based Routing

General IPv6 Protocols

1981 Path MTU Discovery
2460 IPv6
2461 Neighbor Discovery
2462 Stateless Address AutoConfig
2463 ICMPv6
2464 Ethernet Transmission
2675 Jumbo grams
3587 Global Unicast Address Format
4291 IPv6 Addressing
2464 Transmission of IPv6 Packets over Ethernet Networks
2711 IPv6 Router Alert Option
4007 IPv6 Scoped Address Architecture
4213 Basic Transition Mechanisms for IPv6 Hosts and Routers
4291 IPv6 Addressing Architecture
5095 Deprecation of Type 0 Routing Headers in IPv6
IPv6 Management support (telnet, FTP, TACACS, RADIUS, SSH, NTP)

OSPF

1587 NSSA
1745 OSPF/BGP interaction
1765 OSPF Database overflow
2154 MD5
2328 OSPFv2
2370 Opaque LSA
3101 OSPF NSSA
3623 OSPF Graceful Restart (Helper mode)

Security

2865 RADIUS
3162 Radius and IPv6
4250, 4251, 4252, 4253, 4254 SSHv2
4301 Security Architecture for IPSec
4302 IPSec Authentication Header
4303 ESP Protocol

BGP

1997 Communities
2385 MD5
2439 Route Flap Damping
2796 Route Reflection
2842 Capabilities
2918 Route Refresh
3065 Confederations
4271 BGP-4
4360 Extended Communities
4893 4-byte ASN
5396 4-byte ASN Representation
5492 Capabilities Advertisement

Linux Distribution

Debian Linux version 8.4
Linux Kernel 3.16

MIBS

IP MIB– Net SNMP
IP Forward MIB– Net SNMP
Host Resources MIB– Net SNMP
IF MIB – Net SNMP

LLDP MIB
Entity MIB
LAG MIB
Dell-Vendor MIB
TCP MIB – Net SNMP
UDP MIB – Net SNMP
SNMPv2 MIB – Net SNMP

Network Management

SNMPv1/2
SSHv2
FTP, TFTP, SCP
Syslog
Port Mirroring
RADIUS
802.1X
Support Assist (Phone Home)
Netconf APIs
XML Schema
CLI Commit (Scratchpad)
sFlow
Automation
Control Plane Services APIs
Linux Utilities and Scripting Tools
Quality of Service
Access Control Lists
Prefix List
Route-Map
Rate Shaping (Egress)
Rate Policing (Ingress)
Scheduling Algorithms
- Round Robin
- Weighted Round Robin
- Deficit Round Robin
- Strict Priority

Weighted Random Early Detect

Data center bridging

802.1Qbb Priority-Based Flow Control
802.1Qaz Enhanced Transmission Selection (ETS)
Data Center Bridging eXchange (DCBx)
DCBx Application TLV (iSCSI, FCoE)
Fibre Channel (applicable only to S4148U-ON)
FCF F-Port
FC Zoning

Regulatory compliance

Safety

UL/CSA 60950-1, Second Edition
EN 60950-1, Second Edition
IEC 60950-1, Second Edition 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 32: Class A
Canada: ICES-003, Issue-4, Class A
Europe: EN 55032: 2015+A1:2007 (CISPR 32), Class A
Japan: VCCI V3/2009 Class A
USA: FCC CFR 47 Part 15, Subpart B:2009, Class A

Immunity

EN 300 386 V1.4.1:2008 EMC for Network Equipment
EN 55024: 1998 + A1: 2001 + A2: 2003
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 S-Series components are EU RoHS compliant.

Certifications

Japan: VCCI V3/2009 Class A
USA: FCC CFR 47 Part 15, Subpart B:2009, Class A

Warranty

1 Year Return to Depot

Dell Technologies Services

Plan, deploy, manage and support your IT transformation with our top-rated services

Consulting

Dell Technologies Consulting Services provides industry professionals with a wide range of tools and the experience your need to design and execute plans to transform your business.

Deployment

Accelerate technology adoption with ProDeploy Enterprise Suite. Trust our experts to lead deployments through planning, configuration and complex integrations.

Management

Regain control of operations with flexible IT management options. Our Residency Services help you adopt and optimize new technologies and our Managed Services allow you to outsource portions of your environment to us.

Support

Increase productivity and reduce downtime with ProSupport Enterprise Suite. Expert support backed by proactive and predictive artificial intelligence tools.

Education

Dell Technologies Education Services help you develop the IT skills required to lead and execute transformational strategies. Get certified today.

Learn more at DellTechnologies.com/Services

Learn more at DellTechnologies.com/Networking

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