

## Highlights

#### **High Performance**

Remove bottlenecks and future-proof the network with up to 714.3/357.1 Mpps forwarding rate and 960/480 Gbps throughput

#### Reliability

The DXS-3600 Series supports dual power supplies and load sharing for AC/DC power, as well as Data Center Bridging features for lossless Ethernet

#### **Energy Saving**

Intelligent, removable smart fans and front-to-back airflow unifies airflow direction in the data center and minimizes power consumption of the switch



## DXS-3600 Series Layer 3 Stackable 10G Managed Switches

## Features

### **High Performance and Flexibility**

- Two AC/DC hot-swappable power modules for 1+1 power redundancy and load sharing
- Three hot-swappable fan trays with front-toback airflow and N+1 cooling redundancy
- Up to 480G stacking bandwidth with four devices functioning together as a single unit

### **Data Center Features**

- IEEE 802.1Qbb Priority-based Flow Control (PFC)
- IEEE 802.1Qaz Enhanced Transmission Selection (ETS)
- IEEE 802.1Qau Congestion Notification (QCN)

### **Advanced Features**

- MPLS
- OSPF/BGP/IS-IS
- ERPS (G.8032 v1/v2)
- Three Color Marker

### Easy Management

- Web-based GUI, Command Line Interface (CLI)
- RADIUS/TACAS+
- LLDP/LLDP-MED

### OAM

- IEEE 802.3ah Ethernet link OAM
- IEEE 802.1ag
- ITU-T Y.1731

The D-Link DXS-3600 Series Layer 3 Stackable 10G Managed Switches are a set of new, compact, high-performance switches that feature very low latency wire speed 10G Ethernet switching and routing. The 1U height and front-to-back airflow make the DXS-3600 Series suitable for enterprise and campus aggregation network environments. The DXS-3600 Series switches have 8 or 24 fixed 10G SFP+ ports and can accommodate more ports with the addition of an expansion module. The expansion modules not only provide extra 10G SFP+ ports, but also increase flexibility by allowing 120G stacking, 40G uplinks, or low-cost 10GBASE-T connections for different applications.

### **Convenient Deployment**

The DXS-3600 Series provides your network with high-performance 10G Ethernet switching capacities of up to 960 Gbps and forwarding rates of up to 714 Mpps. These switches feature hot-swappable power supplies and fan trays, which enable the switches to have redundant, high-availability architecture. The modular power design allows customers to use AC or DC power sources according to where the switch is deployed. When inserting two power modules, both power modules share the load and help to extend the lifetime of the other. The DXS-3600 Series also features a modular fan design; three fans can back up each other, providing 2+1 redundancy for the system. If a fan fails or the temperature rises, the smart fans will adjust their speed automatically.

## **Flexible Software**

The DXS-3600 Series can be deployed using one of two different software images. The Standard Image (SI) features a wide range of Layer 2, VLAN, multicasting, Quality of Service (QoS), security, data center, and static routing functions. The Enhanced Image (EI) features comprehensive IPv4/v6 routing including RIP, VRRP, OSPF, BGP, and L3 multicasting features such as IGMP, MLD, PIM-DM, SM, SDM, SSM, and DVMRP. The Enhanced Image (EI) also supports L2/L3 MPLS VPN which enables the DXS-3600 Series to be deployed as the core router of an enterprise environment, or as an aggregation switch in an MPLS environment.



### **Data Center Features**

Data Center Bridging (DCB) is an essential set of enhancements to Ethernet for networking in data center environments. The DXS-3600 Series switches support several core components of Data Center Bridging (DCB) such as IEEE 802.1Qbb, IEEE 802.1Qaz, and IEEE 802.1Qau. IEEE 802.1Qbb (Priority-based Flow Control) provides flow control to ensure there is no data loss during network congestion. IEEE 802.1Qaz (Enhanced Transmission Selection) manages the allocation of bandwidth based on different traffic classes. IEEE 802.1Qau (Congestion Notification) provides congestion management for data flows within network domains to avoid congestion. The DXS-3600 Series switches also support cut-through switching, which reduces latency when transmitting data in a network.

## **Energy-Efficient**

The DXS-3600 Series utilizes front-to-back airflow for increased cooling efficiency, allowing hot and cold isles to be built in the data centre and unifying airflow direction when compared to a mix of back-to-front and side-to-side airflow. Modular power supplies provide the option to use AC or DC power inputs, allowing the most efficient choice for the environment to be chosen. The switches also feature built-in smart fans which monitor and detect temperature changes, adjusting the fan speed for maximum efficiency. At lower temperatures, the fans run at a lower speed, reducing both the power consumption and noise output of the switch.

## Stacking with DXS-3600-EM-Stack (DXS-3600-32S only) and DXS-3600-EM-4QXS module (DXS-3600-32S & 16S)

DXS-3600-32S with stacking module to build a physical stacking architecture which provides:

- Up to 96 10G SFP+ portsUp to 480G stacking bandwidth
- High redundancy and reliability

Stacking with DXS-3600-EM-Stack module



DEM-CB50CXP 120G CXP Stacking Cable

DXS-3600-325 or 165 with 40G QSFP+ expansion module to build a physical stacking architecture which provides:

- Longer distance stacking by connecting 40G transceivers and fiber cables
   Up to 160G stacking bandwidth
- High redundancy and reliability

DXS-3600-EM-4QXS, the 40G QSFP+ module



DEM-CB100QXS/300QXS, the 40G QSFP+ to QSFP+ DAC

Technical Specifications		
Model	• DXS-3600-32S	• DXS-3600-16S
General		
Interfaces	• 24 fixed SFP+ 10G ports with one expansion slot	• 8 fixed SFP+ 10G ports with one expansion slot
Console Port	RJ-45 console port for c	out-of-band management
Management Port	• 10/100/1000 BASE-T RJ-45 Ethernet for out-of-band remote management	
SD Card Slot	• 1	slot
Performance		
Switching Capacity	• 960 Gbps	• 480 Gbps
Max. Forwarding Rate	• 714.28 Mpps	• 357.14 Mpps
Packet Buffer Memory	• 9 MB	
MAC Address Table	• 1	28K



Physical		
Power Input	• 100 to 240 V AC, 50/60 Hz	
Maximum Power Consumption	<ul> <li>116.8 W (without expansion module)</li> <li>160.4 W (with DXS-3600-EM-4QXS)</li> </ul>	<ul> <li>74.3 W (without expansion module)</li> <li>105.3 W (with DXS-3600-EM-4QXS)</li> </ul>
Standby Power Consumption	• 88.2 W	• 69.9 W
Heat Dissipation (Max.)	<ul> <li>398.29 BTU/hr (without expansion module)</li> <li>546.96 BTU/hr (with DXS-3600-EM-4QXS)</li> </ul>	<ul> <li>253.36 BTU/hr (without expansion module)</li> <li>359.07 BTU/hr (with DXS-3600-EM-4QXS)</li> </ul>
Heat Dissipation (Standby)	• 300.76 BTU/hr	• 238.36 BTU/hr
Dimensions (W x L x H)	• 440 x 506 x 44 m	im (17.32 x 19.92 x 1.73 in)
Weight	• 10.71 kg (23.6 lbs)	• 9.89 kg (21.8 lbs)
Operating Temperature	• 0 to 45	°C (32 to 113 °F)
Storage Temperature	• -40 to 70	0 °C (-40 to 158 °F)
Operating Humidity	• 09	% to 95% RH
Storage Humidity	• 09	% to 95% RH
Certifications		
Safety	• CB, cUL, LVD	
EMI/EMC	• FCC, CI	E, C-Tick, IC, VCCI
Standard Image (SI) Fe	eatures	
Stackability	<ul> <li>DXS-3600-32S with:</li> <li>DXS-3600-EM-Stack expansion module: 480G stacking bandwidth</li> <li>DXS-3600-EM-4QXS expansion module: 160G stacking bandwidth</li> <li>DXS-3600-16S with:</li> <li>DXS-3600-EM-4QXS expansion module: 160G stacking bandwidth</li> </ul>	<ul> <li>Virtual Stacking/Clustering of up to 32 units</li> <li>Supports D-Link Single IP Management</li> <li>Physical Stacking</li> <li>Up to 480G stacking bandwidth</li> <li>Up to 4 switches in a stack</li> <li>Ring/chain topology support</li> </ul>
L2 Features	<ul> <li>MAC Address Table <ul> <li>128K entries</li> </ul> </li> <li>Flow Control <ul> <li>802.3x Flow Control when using full-duplex</li> <li>Back Pressure when using half-duplex</li> <li>HOL Blocking Prevention</li> </ul> </li> <li>Spanning Tree Protocol <ul> <li>802.1D STP</li> <li>802.1w RSTP</li> <li>802.1s MSTP</li> <li>Supports Root Restriction</li> </ul> </li> <li>Jumbo Frame <ul> <li>Up to 12,000 bytes</li> </ul> </li> </ul>	<ul> <li>802.1AX Link Aggregation</li> <li>Max. 32 groups per device, 12 ports per group</li> <li>ERPS (Ethernet Ring Protection Switching)</li> <li>Port Mirroring <ul> <li>Supports One-to-One, Many-to-One</li> <li>Supports Mirroring for Tx/Rx/Both</li> <li>Supports 4 mirroring groups</li> </ul> </li> <li>Flow Mirroring <ul> <li>Supports One-to-One, Many-to-One</li> <li>Supports One-to-One, Many-to-One</li> </ul> </li> <li>Supports One-to-One, Many-to-One</li> <li>Supports One-to-One, Many-to-One</li> <li>Supports A mirroring for Rx</li> <li>Supports 4 mirroring groups</li> <li>RSPAN mirroring</li> <li>Loopback Detection</li> <li>L2 Protocol Tunneling</li> </ul>
L2 Multicast Features	<ul> <li>L2 Multicast Filtering</li> <li>Forwards all groups</li> <li>Forwards all unregistered groups</li> <li>Filters all unregistered groups</li> <li>MLD Snooping</li> <li>MLD v1/v2 Snooping</li> <li>Supports 4K groups</li> <li>Host-based MLD Snooping Fast Leave</li> </ul>	<ul> <li>IGMP Snooping</li> <li>IGMP v1/v2/v3 Snooping</li> <li>Supports 4K IGMP groups</li> <li>Supports 1K static multicast addresses</li> <li>IGMP per VLAN</li> <li>Host-based IGMP Snooping Fast Leave</li> <li>PIM Snooping</li> </ul>



L3 Features	ARP     512 Static ARP     Supports Gratuitous ARP	<ul> <li>IP Interface</li> <li>Supports 256 interfaces</li> <li>Loopback Interface</li> <li>IPv6 Neighbor Discovery (ND)</li> </ul>
L3 Routing	<ul> <li>Static Routing</li> <li>Max. 1K IPv4 entries</li> <li>Max. 512 IPv6 entries</li> <li>Supports secondary route</li> <li>Supports Equal Cost/Weighted Cost multi-path route</li> </ul>	• Default Routing
VLAN	<ul> <li>802.1Q</li> <li>802.1v Protocol-based VLAN</li> <li>Double VLAN (Q-in-Q)</li> <li>Port-based Q-in-Q</li> <li>Selective Q-in-Q</li> <li>Port-based VLAN</li> <li>MAC-based VLAN</li> <li>Subnet-based VLAN</li> <li>Private VLAN</li> </ul>	<ul> <li>VLAN Group <ul> <li>Max. 4K static VLAN groups</li> <li>Max. 4094 VIDs</li> </ul> </li> <li>GVRP <ul> <li>Up to 4K dynamic VLANs</li> <li>VLAN Translation</li> <li>ISM VLAN (Multicast VLAN)</li> <li>Private VLAN</li> <li>Super VLAN</li> <li>Super VLAN</li> <li>VLAN Trunking</li> </ul> </li> </ul>
ΑΑΑ	<ul> <li>802.1X Authentication</li> <li>Supports port-based access control</li> <li>Supports host-based access control</li> <li>Dynamic VLAN assignment</li> <li>Identity-driven policy (VLAN/ACL/QoS) assignment</li> <li>Web-based Access Control (WAC)</li> <li>Supports port-based access control</li> <li>Supports host-based access control</li> <li>Dynamic VLAN Assignment</li> <li>Identity-driven Policy (VLAN/ACL/QoS) Assignment</li> </ul>	<ul> <li>MAC-based Access Control (MAC)</li> <li>Supports port-based access control</li> <li>Supports host-based access control</li> <li>Dynamic VLAN Assignment</li> <li>Identity-driven Policy (VLAN/ACL/QoS) Assignment</li> <li>Guest VLAN</li> <li>Compound Authentication</li> <li>Microsoft NAP</li> <li>Supports 802.1X NAP</li> <li>Supports DHCP NAP</li> <li>RADIUS and TACACS+ authentication</li> <li>Authentication Database Failover</li> <li>Trusted Host</li> </ul>
QoS (Quality of Service)	<ul> <li>802.1p Quality of Service (QoS)</li> <li>8 queues per port</li> <li>Queue handling <ul> <li>Strict</li> <li>Weighted Round Robin (WRR)</li> <li>Strict + WRR</li> <li>Round Robin (RR)</li> <li>Weighted Deficit Round Robin (WDRR)</li> </ul> </li> <li>QoS based on: <ul> <li>802.1p Priority Queues</li> <li>DSCP</li> <li>IP address</li> <li>MAC address</li> <li>VLAN</li> <li>IPv6 Traffic Class</li> <li>IPv6 Flow Label</li> <li>TCP/UDP port</li> </ul> </li> </ul>	<ul> <li>Bandwidth Control</li> <li>Port-based (ingress/egress, min. granularity 8 Kb/s)</li> <li>Flow-based (ingress/egress, min. granularity 8 Kb/s)</li> <li>Per queue bandwidth control (min. granularity 8 Kb/s)</li> <li>Three Color Marker</li> <li>trTCM</li> <li>srTCM</li> <li>Congestion Control</li> <li>WRED</li> <li>Support for following actions:</li> <li>Remark 802.1 p priority tag</li> <li>Remark TOS/DSCP tag</li> <li>Bandwidth Control</li> <li>Committed Information Rate (CIR)</li> </ul>
Access Control List (ACL)	<ul> <li>ACL based on:</li> <li>802.1 p priority</li> <li>VLAN</li> <li>MAC address</li> <li>EtherType</li> <li>IP address</li> <li>DSCP</li> <li>Protocol type</li> <li>TCP/UDP port number</li> <li>IPv6 Traffic Class</li> <li>IPv6 Flow Label</li> </ul>	<ul> <li>Max. ACL entries:</li> <li>1792 ingress ACL rules</li> <li>1K egress ACL rules</li> <li>3K VLAN Access Maps</li> <li>Time-based ACL</li> </ul>



	Port Security	IPv6 ND Inspection
Security	Supports up to 12K MAC addresses per port/system	ARP Spoofing Prevention
	Broadcast/Multicast/Unicast Storm Control	Max. 64 entries
	D-Link Safeguard Engine	Traffic Segmentation
	DHCP Server Screening	SSL
	• IP-MAC-Port Binding (IMPB)	Supports v1/v2/v3
	Dynamic ARP Inspection	<ul> <li>Supports IPv4/v6 access</li> </ul>
	IP Source Guard	• SSH
	DHCP Snooping	Supports v2
	IPv6 Snooping	Supports IPv4/v6 access
	DHCPv6 Guard	BPDU Attack Protection
	IPv6 Route Advertisement (RA) Guard	DOS Attack Prevention
Managament	Web-based GUI	DNS Resolver
Management	CLI	CPU Monitoring
	Telnet Server/Client	MTU Setting
	TFTP Client	Traceroute & Ping
	FTP Client	LLDP/LLDP-MED
	Traffic Monitoring	DNS Relay
	SNMP	SMTP
	Supports v1/v2c/v3	DHCP Auto Configuration
	SNMP Trap	• SNTP
	System Log	RCP (Remote Copy Protocol)
	DHCP Client	RMONv1
	DHCP Server	• RMONv2
	• DHCP Relay options 12, 60, 61, 82	Trusted Host
	Multiple Image	<ul> <li>Password encryption</li> </ul>
	Multiple Configuration	<ul> <li>Debug command</li> </ul>
	Flash File System	<ul> <li>IPv6 Stateless Address Auto-configuration (SLAAC)</li> </ul>
Enhanced Image (El	) Additional Features	
		DIM Granes Danes Mada
L3 Multicasting	Multicast Table Size: 2K	PIM-Sparse-Dense Mode
	• IGMP v1, v2c, v3	• PIM-SSM
	<ul> <li>PIM-SM IPv4/IPv6</li> </ul>	• DVMRP v3
	• PIM-DM	• MLD v1/v2
	Multicast Source Discovery Protocol (MSDP)	
MPLS	• LDP	L2 protocol tunneling through PW
	MPLS LSP trigger filtering	• VPWS
	MPLS label-forwarding	• VPLS
	5	
	MPLS QoS	PW Redundancy
	MPLS ping and traceroute	
	IPv6 Tunneling	• VRRP
L3 Features		
L3 Features	Static	
L3 Features	Static	
L3 Features	Static     ISATAP	
L3 Features	Static     ISATAP     GRE	
	Static     ISATAP     GRE     6to4	
	Static     ISATAP     GRE	• MP-BGP
	Static     ISATAP     GRE     6to4	• MP-BGP • VRF aware application
L3 VPN	Static     ISATAP     GRE     6to4      MPLS/BGP L3 VPN     VRF-Lite	
L3 VPN	<ul> <li>Static</li> <li>ISATAP</li> <li>GRE</li> <li>6to4</li> </ul> MPLS/BGP L3 VPN <ul> <li>VRF-Lite</li> </ul> Supports 16K hardware routing entries shared by IPv4/IPv6	VRF aware application     BGPv4
L3 VPN	<ul> <li>Static <ul> <li>ISATAP</li> <li>GRE</li> <li>6to4</li> </ul> </li> <li>MPLS/BGP L3 VPN <ul> <li>VRF-Lite</li> </ul> </li> <li>Supports 16K hardware routing entries shared by IPv4/IPv6 <ul> <li>Max. 16K IPv4 entries</li> </ul> </li> </ul>	<ul> <li>VRF aware application</li> <li>BGPv4</li> <li>IS-IS</li> </ul>
L3 VPN	Static     ISATAP     GRE     6to4      MPLS/BGP L3 VPN     VRF-Lite      Supports 16K hardware routing entries shared by IPv4/IPv6     Max. 16K IPv4 entries     Max. 8K IPv6 entries	<ul> <li>VRF aware application</li> <li>BGPv4</li> <li>IS-IS</li> <li>IS-ISv6</li> </ul>
L3 VPN	Static     ISATAP     GRE     GRE     oto4      MPLS/BGP L3 VPN     VRF-Lite      Supports 16K hardware routing entries shared by IPv4/IPv6     Max. 16K IPv4 entries     Max. 8K IPv6 entries     Supports 8K hardware L3 forwarding entries shared by IPv4/IPv6	<ul> <li>VRF aware application</li> <li>BGPv4</li> <li>IS-IS</li> <li>IS-ISv6</li> <li>Route Redistribution</li> </ul>
L3 VPN	Static     ISATAP     GRE     6to4      MPLS/BGP L3 VPN     VRF-Lite      Supports 16K hardware routing entries shared by IPv4/IPv6     Max. 16K IPv4 entries     Max. 8K IPv6 entries	<ul> <li>VRF aware application</li> <li>BGPv4</li> <li>IS-IS</li> <li>IS-ISv6</li> </ul>
L3 VPN	Static     ISATAP     GRE     GRE     oto4      MPLS/BGP L3 VPN     VRF-Lite      Supports 16K hardware routing entries shared by IPv4/IPv6     Max. 16K IPv4 entries     Max. 8K IPv6 entries     Supports 8K hardware L3 forwarding entries shared by IPv4/IPv6	<ul> <li>VRF aware application</li> <li>BGPv4</li> <li>IS-IS</li> <li>IS-ISv6</li> <li>Route Redistribution</li> </ul>
L3 VPN	<ul> <li>Static</li> <li>ISATAP</li> <li>GRE</li> <li>6to4</li> <li>MPLS/BGP L3 VPN</li> <li>VRF-Lite</li> <li>Supports 16K hardware routing entries shared by IPv4/IPv6</li> <li>Max. 16K IPv4 entries</li> <li>Max. 8K IPv6 entries</li> <li>Supports 8K hardware L3 forwarding entries shared by IPv4/IPv6</li> <li>Max. 8K IPv4 entries</li> </ul>	<ul> <li>VRF aware application</li> <li>BGPv4</li> <li>IS-IS</li> <li>IS-ISv6</li> <li>Route Redistribution</li> <li>Default Route</li> </ul>
L3 VPN	<ul> <li>Static</li> <li>ISATAP</li> <li>GRE</li> <li>6to4</li> <li>MPLS/BGP L3 VPN</li> <li>VRF-Lite</li> <li>Supports 16K hardware routing entries shared by IPv4/IPv6</li> <li>Max. 16K IPv4 entries</li> <li>Max. 8K IPv6 entries</li> <li>Supports 8K hardware L3 forwarding entries shared by IPv4/IPv6</li> <li>Max. 8K IPv4 entries</li> <li>Supports 8K hardware L3 forwarding entries shared by IPv4/IPv6</li> <li>Max. 8K IPv6 entries</li> <li>Supports 8K hardware L3 forwarding entries shared by IPv4/IPv6</li> <li>Max. 4K IPv6 entries</li> <li>RIP</li> </ul>	<ul> <li>VRF aware application</li> <li>BGPv4</li> <li>IS-IS</li> <li>IS-ISv6</li> <li>Route Redistribution <ul> <li>Default Route</li> <li>Static Route</li> <li>RIP</li> </ul> </li> </ul>
L3 Features L3 VPN L3 Routing	<ul> <li>Static</li> <li>ISATAP</li> <li>GRE</li> <li>6to4</li> <li>MPLS/BGP L3 VPN</li> <li>VRF-Lite</li> <li>Supports 16K hardware routing entries shared by IPv4/IPv6</li> <li>Max. 16K IPv4 entries</li> <li>Max. 8K IPv6 entries</li> <li>Supports 8K hardware L3 forwarding entries shared by IPv4/IPv6</li> <li>Max. 8K IPv4 entries</li> <li>Supports 8K hardware L3 forwarding entries shared by IPv4/IPv6</li> <li>Max. 8K IPv6 entries</li> <li>Supports 8K hardware L3 forwarding entries shared by IPv4/IPv6</li> <li>Max. 4K IPv6 entries</li> <li>RIP</li> <li>RIP v1/v2</li> </ul>	<ul> <li>VRF aware application</li> <li>BGPv4</li> <li>IS-IS</li> <li>IS-ISv6</li> <li>Route Redistribution <ul> <li>Default Route</li> <li>Static Route</li> <li>RIP</li> <li>OSPF v2/v3</li> </ul> </li> </ul>
L3 VPN	<ul> <li>Static</li> <li>ISATAP</li> <li>GRE</li> <li>6to4</li> <li>MPLS/BGP L3 VPN</li> <li>VRF-Lite</li> <li>Supports 16K hardware routing entries shared by IPv4/IPv6</li> <li>Max. 16K IPv4 entries</li> <li>Max. 8K IPv6 entries</li> <li>Supports 8K hardware L3 forwarding entries shared by IPv4/IPv6</li> <li>Max. 8K IPv4 entries</li> <li>Max. 8K IPv4 entries</li> <li>Supports 8K hardware L3 forwarding entries shared by IPv4/IPv6</li> <li>Max. 4K IPv6 entries</li> <li>RIP</li> <li>RIP v1/v2</li> <li>RIPng</li> </ul>	<ul> <li>VRF aware application</li> <li>BGPv4</li> <li>IS-IS</li> <li>IS-ISv6</li> <li>Route Redistribution <ul> <li>Default Route</li> <li>Static Route</li> <li>RIP</li> <li>OSPF v2/v3</li> <li>BGP</li> </ul> </li> </ul>
L3 VPN	<ul> <li>Static</li> <li>ISATAP</li> <li>GRE</li> <li>6to4</li> <li>MPLS/BGP L3 VPN</li> <li>VRF-Lite</li> <li>Supports 16K hardware routing entries shared by IPv4/IPv6</li> <li>Max. 16K IPv4 entries</li> <li>Max. 8K IPv6 entries</li> <li>Supports 8K hardware L3 forwarding entries shared by IPv4/IPv6</li> <li>Max. 8K IPv4 entries</li> <li>Supports 8K hardware L3 forwarding entries shared by IPv4/IPv6</li> <li>Max. 8K IPv4 entries</li> <li>Supports 8K hardware L3 forwarding entries shared by IPv4/IPv6</li> <li>Max. 4K IPv6 entries</li> <li>RIP</li> <li>RIP v1/v2</li> <li>RIPng</li> <li>OSPF</li> </ul>	<ul> <li>VRF aware application</li> <li>BGPv4</li> <li>IS-IS</li> <li>IS-ISv6</li> <li>Route Redistribution <ul> <li>Default Route</li> <li>Static Route</li> <li>RIP</li> <li>OSPF v2/v3</li> <li>BGP</li> </ul> </li> <li>IP Directed Broadcast</li> </ul>
L3 VPN	<ul> <li>Static</li> <li>ISATAP</li> <li>GRE</li> <li>6to4</li> <li>MPLS/BGP L3 VPN</li> <li>VRF-Lite</li> <li>Supports 16K hardware routing entries shared by IPv4/IPv6</li> <li>Max. 16K IPv4 entries</li> <li>Max. 8K IPv6 entries</li> <li>Supports 8K hardware L3 forwarding entries shared by IPv4/IPv6</li> <li>Max. 8K IPv4 entries</li> <li>Max. 8K IPv4 entries</li> <li>Supports 8K hardware L3 forwarding entries shared by IPv4/IPv6</li> <li>Max. 4K IPv6 entries</li> <li>RIP</li> <li>RIP v1/v2</li> <li>RIPng</li> <li>OSPF</li> <li>OSPF v2</li> </ul>	<ul> <li>VRF aware application</li> <li>BGPv4</li> <li>IS-IS</li> <li>IS-ISv6</li> <li>Route Redistribution <ul> <li>Default Route</li> <li>Static Route</li> <li>RIP</li> <li>OSPF v2/v3</li> <li>BGP</li> </ul> </li> <li>IP Directed Broadcast</li> <li>Policy Based Route</li> </ul>
L3 VPN	<ul> <li>Static</li> <li>ISATAP</li> <li>GRE</li> <li>6to4</li> <li>MPLS/BGP L3 VPN</li> <li>VRF-Lite</li> <li>Supports 16K hardware routing entries shared by IPv4/IPv6</li> <li>Max. 16K IPv4 entries</li> <li>Max. 8K IPv6 entries</li> <li>Supports 8K hardware L3 forwarding entries shared by IPv4/IPv6</li> <li>Max. 8K IPv4 entries</li> <li>Supports 8K hardware L3 forwarding entries shared by IPv4/IPv6</li> <li>Max. 8K IPv4 entries</li> <li>Supports 8K hardware L3 forwarding entries shared by IPv4/IPv6</li> <li>Max. 4K IPv6 entries</li> <li>RIP</li> <li>RIP v1/v2</li> <li>RIPng</li> <li>OSPF</li> </ul>	<ul> <li>VRF aware application</li> <li>BGPv4</li> <li>IS-IS</li> <li>IS-ISv6</li> <li>Route Redistribution <ul> <li>Default Route</li> <li>Static Route</li> <li>Static Route</li> <li>RIP</li> <li>OSPF v2/v3</li> <li>BGP</li> </ul> </li> <li>IP Directed Broadcast</li> <li>Policy Based Route</li> <li>Bidirectional Forwarding Detection (BFD)</li> </ul>
L3 VPN	<ul> <li>Static</li> <li>ISATAP</li> <li>GRE</li> <li>6to4</li> <li>MPLS/BGP L3 VPN</li> <li>VRF-Lite</li> <li>Supports 16K hardware routing entries shared by IPv4/IPv6</li> <li>Max. 16K IPv4 entries</li> <li>Max. 8K IPv6 entries</li> <li>Supports 8K hardware L3 forwarding entries shared by IPv4/IPv6</li> <li>Max. 8K IPv4 entries</li> <li>Max. 8K IPv4 entries</li> <li>Supports 8K hardware L3 forwarding entries shared by IPv4/IPv6</li> <li>Max. 4K IPv6 entries</li> <li>RIP</li> <li>RIP v1/v2</li> <li>RIPng</li> <li>OSPF</li> <li>OSPF v2</li> </ul>	<ul> <li>VRF aware application</li> <li>BGPv4</li> <li>IS-IS</li> <li>IS-ISv6</li> <li>Route Redistribution <ul> <li>Default Route</li> <li>Static Route</li> <li>RIP</li> <li>OSPF v2/v3</li> <li>BGP</li> </ul> </li> <li>IP Directed Broadcast</li> <li>Policy Based Route</li> </ul>
L3 VPN	<ul> <li>Static <ul> <li>ISATAP</li> <li>GRE</li> <li>6to4</li> </ul> </li> <li>MPLS/BGP L3 VPN <ul> <li>VRF-Lite</li> </ul> </li> <li>Supports 16K hardware routing entries shared by IPv4/IPv6 <ul> <li>Max. 16K IPv4 entries</li> <li>Max. 8K IPv6 entries</li> </ul> </li> <li>Supports 8K hardware L3 forwarding entries shared by IPv4/IPv6 <ul> <li>Max. 8K IPv4 entries</li> <li>Max. 8K IPv4 entries</li> <li>Max. 8K IPv4 entries</li> <li>RIPv1/v2</li> <li>RIP</li> <li>RIP v1/v2</li> <li>RIPng</li> <li>OSPF</li> <li>OSPF v2</li> <li>OSPF v3</li> </ul> </li> </ul>	<ul> <li>VRF aware application</li> <li>BGPv4</li> <li>IS-IS</li> <li>IS-ISv6</li> <li>Route Redistribution <ul> <li>Default Route</li> <li>Static Route</li> <li>Static Route</li> <li>RIP</li> <li>OSPF v2/v3</li> <li>BGP</li> </ul> </li> <li>IP Directed Broadcast</li> <li>Policy Based Route</li> <li>Bidirectional Forwarding Detection (BFD)</li> </ul>



#### Standards

MIB & RFC Standards	• RFC1213 MIB II	RFC2597, RFC2598 QoS Flow Actions
	RFC1907 SNMP v2 MIB	<ul> <li>RFC2697, RFC2698 Three Color Marker, RFC2093, RFC2904,</li> </ul>
	RFC5519 IGMP v3 MIB	RFC2095, RFC2906 AAA
	RFC1724 RIP v2 MIB	<ul> <li>RFC1321, RFC2144, RFC2313, RFC2420, RFC2841, RFC3394</li> </ul>
	RFC2021 RMONv2 MIB	Encryption
	<ul> <li>RFC1643, RFC2358, RFC2665 Ether-like MIB</li> </ul>	RFC2289 One-Time
	• RFC4836 802.3 MAU MIB	• RFC3580 802.1X
	• RFC4363 802.1p MIB	RFC2866 RADIUS Accounting
	<ul> <li>RFC2618 RADIUS Authentication Client MIB</li> </ul>	<ul> <li>RFC2138, RFC2139, RFC2865, RFC2618 RADIUS Author. for</li> </ul>
	RFC4292 IP Forwarding Table MIB	Management Access
	<ul> <li>RFC2932 IPv4 Multicast Routing MIB</li> </ul>	<ul> <li>RFC1492 TACACS+ Auth. for Management Access</li> </ul>
	RFC2934 PIM MIB for IPv4	<ul> <li>RFC2068, RFC2616 Web-based GUI</li> </ul>
	RFC2620 RADIUS Accounting Client MIB	RFC854 Telnet Server
	RFC2925 Traceroute MIB	RFC783, RFC1350 TFTP Client
	RFC2925 Ping MIB	<ul> <li>RFC1157, RFC1901, RFC1908, RFC2570, RFC2574, RFC2575,</li> </ul>
	RFC1850 OSPF MIB	RFC3411-17 SNMP
	Private MIB	RFC3164 System Log
	<ul> <li>RFC1112, RFC2236, RFC3376, RFC4541 IGMP Snooping</li> </ul>	• RFC2819 RMON v1
	• RFC4363 802.1v	<ul> <li>RFC951, RFC1542, RFC2131, RFC3046 BootP/DHCP Client</li> </ul>
	• RFC2338 VRRP	RFC1769 Time Setting
	<ul> <li>RFC1058, RFC1388, RFC1723, RFC2453, RFC2080 RIP</li> </ul>	RFC2131 DHCP Server
	<ul> <li>RFC1370 Applicability Statement for OSPF</li> </ul>	RFC1191 MTU Setting
	<ul> <li>RFC1765 OSPF Database Overflow</li> </ul>	• RFC1065, RFC1066, RFC1155, RFC1156, RFC2578 MIB Structure
	• RFC2328 OSPF v2	<ul> <li>RFC1215 MIB Traps Convention</li> </ul>
	RFC2740 OSPF for IPv6	RFC4188 Bridge MIB
	<ul> <li>RFC3101 OSPF Not-So-Stubby Area (NSSA) option; makes</li> </ul>	<ul> <li>RFC1157, RFC2571-2576, RFC3411-3415, RFC3418 SNMP MIB</li> </ul>
	RFC1587 obsolete	<ul> <li>RFC1901-1908, RFC1442, RFC2578 SNMP v2 MIB</li> </ul>
	<ul> <li>RFC2328 makes RFC2178 obsolete</li> </ul>	RFC2737 Entity MIB
	<ul> <li>RFC2178 makes RFC1583 obsolete</li> </ul>	• RFC768 UDP
	<ul> <li>RFC1771, RFC1997, RFC2439, RFC2796, RFC2842, RFC2918 BGP</li> </ul>	• RFC791 IP
	RFC3973 PIM-DM	RFC792 ICMP
	RFC5059 PIM-SM	• RFC793 TCP
	<ul> <li>RFC3569, RFC4601, RFC4608, RFC4607, RFC4604 PIM SSM</li> </ul>	RFC826 ARP
	• RFC3376 IGMP	<ul> <li>RFC1338, RFC1519 CIDR</li> </ul>
	RFC2475 Priority Queue Mapping	• RFC2716, RFC3748 EAP
	<ul> <li>RFC2475, RFC2598 Class of Service (CoS)</li> </ul>	<ul> <li>RFC2571, RFC2572, RFC2573, RFC2574 SNMP</li> </ul>
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Ordering Information	
Part Number	Description
DXS-3600-32S/SI	24 fixed SFP+ ports with one expansion slot and Standard Image, one AC power supply, and three fan trays (front-to-back airflow) included
DXS-3600-16S/SI	8 fixed SFP+ ports with one expansion slot and Standard Image, one AC power supply, and three fan trays (front-to-back airflow) included
DXS-3600-32S/EI	24 fixed SFP+ ports with one expansion slot and Enhanced Image, one AC power supply, and three fan trays (front-to-back airflow) included
DXS-3600-16S/EI	8 fixed SFP+ ports with one expansion slot and Enhanced Image, one AC power supply, and three fan trays (front-to-back airflow) included
DXS-3600-32S-SE-LIC	DXS-3600-32S Standard Image to Enhanced Image License
DXS-3600-16S-SE-LIC	DXS-3600-16S Standard Image to Enhanced Image License
DXS-3600-EM-4XT	• 4 x 10GBASE-T expansion module
DXS-3600-EM-8T	• 8 x 10/100/1000BASE-T expansion module
DXS-3600-EM-4QXS	• 4 x 40G QSFP+ expansion module
DXS-3600-EM-8XS	• 8 x 10G SFP+ expansion module
DXS-3600-EM-Stack	• 2 x 120G CXP physical stacking module
DXS-PWR300AC	• 300 W AC modular power supply with front-to-back airflow
DXS-PWR300DC	300 W DC modular power supply with front-to-back airflow
DXS-3600-FAN-FB	Fan tray with front-to-back airflow
Optional Manageme	ent Software
DV-700-N25-LIC	D-View 7 - 25 Node License
DV-700-N50-LIC	• D-View 7 - 50 Node License
DV-700-N100-LIC	D-View 7 - 100 Node License
DV-700-N250-LIC	D-View 7 - 250 Node License
DV-700-N500-LIC	D-View 7 - 500 Node License
DV-700-N1000-LIC	D-View 7 - 1000 Node License
DV-700-P5-LIC	D-View 7 - 5 Probe License
DV-700-P10-LIC	D-View 7 - 10 Probe License
DV-700-P25-LIC	D-View 7 - 25 Probe License
DV-700-P50-LIC	D-View 7 - 50 Probe License
DV-700-P100-LIC	D-View 7 - 100 Probe License



Optional 10G SFP+ Transceivers	
DEM-431XT	• 10GBASE-SR SFP+ transceiver (w/o DDM), 80 m: OM1 & OM2 MMF, 300 m: OM3 MMF
DEM-431XT-DD	• 10GBASE-SR SFP+ transceiver (with DDM), 80 m: OM1 & OM2 MMF, 300 m: OM3 MMF
DEM-432XT	• 10GBASE-LR SFP+ transceiver (w/o DDM), 10 km
DEM-432XT-DD	• 10GBASE-LR SFP+ transceiver (with DDM), 10 km
DEM-433XT	• 10GBASE-ER SFP+ transceiver (w/o DDM), 40 km
DEM-433XT-DD	• 10GBASE-ER SFP+ transceiver (with DDM), 40 km
DEM-434XT	• 10GBASE-ZR SFP+ transceiver (w/o DDM), 80 km
DEM-435XT	• 10GBASE-LRM SFP+ transceiver (w/o DDM), 220 m: OM1 & OM2 MMF, 300 m: OM3 MMF
DEM-435XT-DD	10GBASE-LRM SFP+ transceiver (with DDM), 220 m: OM1 & OM2 MMF, 300 m: OM3 MMF
DEM-436XT-BXU	• 10GBASE-LR BiDi SFP+ transceiver (w/o DDM) 20 km, Tx: 1270 nm, Rx: 1330 nm
DEM-436XT-BXD	• 10GBASE-LR BiDi SFP+ transceiver (w/o DDM) 20 km, Tx: 1330 nm, Rx: 1270 nm
DEM-X10CS-1271	10G CWDM SFP+ transceiver, single-mode, 10 km (1271 nm)
DEM-X10CS-1291	10G CWDM SFP+ transceiver, single-mode, 10 km (1291 nm)
DEM-X10CS-1311	10G CWDM SFP+ transceiver, single-mode, 10 km (1311 nm)
DEM-X10CS-1331	10G CWDM SFP+ transceiver, single-mode, 10 km (1331 nm)
DEM-X40CS-1471	10G CWDM SFP+ transceiver, single-mode, 40 km (1471 nm)
DEM-X40CS-1491	10G CWDM SFP+ transceiver, single-mode, 40 km (1491 nm)
DEM-X40CS-1511	10G CWDM SFP+ transceiver, single-mode, 40 km (1511 nm)
DEM-X40CS-1571	10G CWDM SFP+ transceiver, single-mode, 40 km (1571 nm)
Optional 1G SFP Transceivers	
DEM-310GT	1000BASE-LX SFP transceiver, single-mode fiber, 10 km, 3.3 V operating voltage
DEM-311GT	• 1000BASE-SX SFP transceiver, multi-mode fiber, 550 m, 3.3 V operating voltage
DEM-312GT2	• 1000BASE-SX SFP transceiver multi-mode fiber, 2 km, 3.3 V operating voltage
DEM-314GT	• 1000BASE-LHX SFP transceiver, single-mode fiber, 50 km, 3.3 V operating voltage
DEM-315GT	• 1000BASE-ZX SFP transceiver, single-mode fiber, 80 km, 3.3 V operating voltage
DEM-330T	• 1000BASE-BX WDM SFP transceiver, single-mode fiber, 10 km, 3.3 V operating voltage, Tx: 1550 nm, Rx: 1310 nm
DEM-330R	• 1000BASE-BX WDM SFP transceiver, single-mode fiber, 10 km, 3.3 V operating voltage, Tx: 1310 nm, Rx: 1550 nm
DEM-331T	• 1000BASE-BX WDM SFP transceiver, single-mode fiber, 40 km, 3.3 V operating voltage, Tx:1550 nm, Rx: 1310 nm
DEM-331R	• 1000BASE-BX WDM SFP transceiver single-mode fiber, 40 km, 3.3 V operating voltage, Tx: 1310 nm, Rx: 1550 nm
DGS-712	1000BASE-TX SFP transceiver

Optional 40G QSFP+ Transceivers	
DEM-QX01Q-SR4	• 40GBASE-SR4 transceiver, multi-mode, OM3: 100 m/OM4: 150 m
DEM-QX10Q-LR4	40GBASE-SR4 transceiver, single-mode, 10 km
Optional 10G SFP+ Dir	ect Attach Cables
DEM-CB100S	• 10G SFP+ to SFP+ 1 m Direct Attach Cable
DEM-CB300S	• 10G SFP+ to SFP+ 3 m Direct Attach Cable
DEM-CB700S	• 10G SFP+ to SFP+ 7 m Direct Attach Cable
DEM-CB100QXS	• 40G QSFP+ to QSFP+ 1 m Direct Attach Cable
DEM-CB300QXS	40G QSFP+ to QSFP+ 3 m Direct Attach Cable
DEM-CB100QXS-4XS	40G QSFP+ to 4x10G SFP+ 1 m Direct Attached Cable
Optional 120G CXP Direct Attach Cables	
DEM-CB50CXP	CXP to CXP 50 cm Stacking Cable
10G Ethernet Adapter	
DXE-810S	Single Port 10G SFP+ PCI Express Adapter
DXE-810T	Single Port 10GBASE-T RJ-45 PCI Express Adapter
DXE-820T	Dual Port 10GBASE-T RJ-45 PCI Express Adapter

Updated 2017/02/09



