Highlights

High Performance

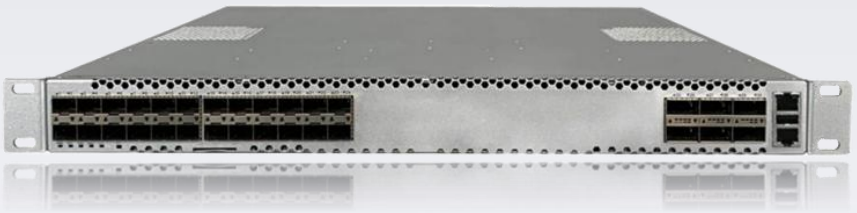
Future-proof your network with 100G uplink port speeds and 24 * 10GE SFP+ downlink port speed with forwarding rates up to 1249.92 Mpps and 1.7 Tbps switching bandwidth

High Availability

Redundancy features, such as hot-swappable power supplies and switch virtual stacking maximize the availability of your network

Easy Management

Industry-standard management tools allow the switch to be easily administered, integrating seamlessly with existing devices



DXS-F3400-28SC

Layer 3 10 GbE Managed Switch

Features

High Availability and Flexibility

- 24* 10GE SFP+ & 6*100GE QSFP28 Ports
- Two AC hot-swappable power modules for 1+1 redundancy and load sharing
- Ethernet Ring Protection Switching (ERPS)
- 3+1 hot-swappable redundant fans with flexible adjustment of fan speed.
- Supports VxLAN, Supports EVPN * protocol and provides VTEP (tunnel terminal)
- M-LAG Architecture
- VRRP, MPBGP
- VSF
- HW version : B1

Traffic Monitoring & Bandwidth Control

- Port mirroring, Bandwidth Control
- Broadcast, Multicast, Unicast storm control

Easy Management

- RJ-45 console port
- Management port
- USB port 2.0

OAM

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

D-Link's DXS-F3400-28SC Layer3 10 GbE Managed Switch is a new, compact, high-performance switch that feature wire-speed 10-Gigabit Ethernet switching, routing, and ultra-low latency. The 1U height and high port density make the DXS-F3400-28SC Switch suitable for enterprise and campus environments where space is at a premium.

High Availability and Flexibility

This switch features a modular power supply design for a high availability architecture. The hot-swappable design means that power supplies can be replaced without affecting switch operation. Virtual switch stacking allows the switch to be managed from a single IP address and provide redundancy for connected devices.

Switch and Link Failover

In addition to traditional Spanning Tree Protocol (STP), Rapid Spanning Tree Protocol (RSTP), and Multiple Spanning Tree Protocol (MSTP), the DXS-F3400-28SC also supports advanced Ethernet failover redundancy technologies, such as Ethernet Ring Protection Switching (ERPS) and FlexLink. ERPS provides millisecond-level failover in a ring topology, while FlexLink offers link failover on designated switch ports, providing link redundancy without STP or LBD.

Layer 3 Routing

The DXS-F3400-28SC having features a wide range of Layer 2, VLAN, multicasting, Quality of Service (QoS), security, data center, and static routing protocols including RIP, VRRP and OSPF. IPv4/v6 routing including BGP and L3 multicasting features such as IGMP, MLD, PIM-DM, PIM-SM. The DXS-F3400-28SC to be deployed as the core router or as an aggregation switch in an enterprise environment.

D-Link®

DXS-F3400-28SC Layer 3 10 GbE Managed Switch

Technical Specifications		
General		
Interfaces	• 24* 10GE SFP+ & 6*100GE QSFP28 Ports	
Console Port	• RJ-45 console ports for out-of-band CLI management	
Management Port	• 10/100/1000BASE-T RJ-45 Ethernet for out-of-band IP management	
USB Port	• 1*2.0 port	
Performance		
Switching Capacity	• 1.7 Tbps	
MAC Address Table	• Up to 32K entries	
Packet Forwarding	• 1249.92 Mpps	
Packet Buffer Memory	• 6 MB	
Physical		
Power Input	• 100 to 240 V AC, 50Hz ± 10% (Hot-Swap)*2	
Power Status Monitoring	• Support Internal and External Voltage Monitoring	
Total output	• BTU (1000BTU/H=293W) 750	
Power Consumption	• No Load: 45W, Full Load: 70W	
Weight	• 10.8Kg	
MTBF (H)	• >200 000	
Dimensions (W x D x H)	• 440 x 410 x 44 mm	
Operating Temperature	• 0 to 40 °C	
FAN	• 4 Hot Swapable Fans	
Routing Table	• IPv4	• Up to 16K Unicast prefixes (LPM)
	• IPv6	• Up to 8K Unicast prefixes (LPM)
ARP Table	• IPv4	• 32K
	• IPv6	• 8K non-IPv6 Tunnel Start table entries • 4K IPv6 Tunnel Start table entries
Flash	1 GB - NAND FLASH/ MMC - 8GB	
DRAM	4 GB	
Standard Image Software Features		
Stackability	• VSF (up to 6 Units)	

L2 Features	• MAC Address Table
	  • Up to 32K entries
	• Flow Control
	  • 802.3x Flow Control when using full-duplex
	  • Back Pressure when using half-duplex
	  • HOL Blocking Prevention
	• Spanning Tree Protocol
	  • 802.1D STP
	  • 802.1w RSTP
	  • 802.1s MSTP
	  • Root Guard
	  • Loop Guard
	  • BPDU Guard
	• Jumbo Frame
	  • Up to 10Kb
		• 802.1AX Link Aggregation
		  • 127 groups per device, 8 ports per group
		• ERPS (Ethernet Ring Protection Switching)
		• Port mirroring
		  • Supports one-to-one, many-to-one
		  • Supports mirroring for Tx/Rx/both
		  • Supports 4 mirroring groups
		• VLAN mirroring
		• L2 protocol tunneling
		• Loopback Detection (LBD)
		• M-LAG
		• VxLAN

L2 Multicast Features	• IGMP Snooping • IGMP v1/v2/v3 Snooping • Supports 16K IGMP groups • IGMP Snooping Querier • Host-based IGMP Snooping Fast Leave	• MLD Snooping • MLD v1/v2 Snooping • Supports 256 groups • Host-based MLD Snooping Fast Leave • MLD Snooping Querier

VLAN	• 802.1q
	• 4k
	• Double VLAN (Q-in-Q)
	  • Port-based Q-in-Q
	  • Selective Q-in-Q
	• Port-based VLAN
	• MAC-based VLAN
	• Private VLAN
		• VLAN group
		  • Max. 4K static VLAN groups
		  • Max. 4094 VIDs
		• ISM VLAN (multicast VLAN)
		• VLAN trunking
		• GVRP

Quality of Service (QoS)	• 802.1p Quality of Service
	• 8 queues per port
	• CoS based on
	  • 802.1p Priority Queues
	  • DSCP
	  • MAC address
	  • VLAN
	  • TCP/UDP port
	  • Switch port
	Congestion Control
	  • WRED
		• Bandwidth Control
		  • Port-based (ingress/egress,granularity 1000-100000000kbps)
		• Queue Handling
		  • Strict Priority (SP)
		  • Weighted Round Robin (WRR)
		  • WFQ
		  • DRR
		  • ROCE v2
		  • PFC, ECN

Access Control List (ACL)	• ACL based on:
	  • 802.1p priority
	  • VLAN
	  • MAC address
	  • IP address
	  • DSCP
	  • TCP/UDP port number
		• Time-based ACL
		• Max. ACL entries:
		  • Ingress/ Egress (hardware entries)
		• L2ACL In
		• L2ACL Out
		• IPv4ACL In
		• IPv4ACL Out
		• IPv6ACL In
		• IPv6ACL Out
		(Each item supports 512 items)

Security	• Port isolation, Port security, and “IP+MAC+port” binding, MAC Sticky • DHCP Snooping and option 82, DAI & IP source guard • IEEE 802.1x, Radius and Tacacs+	• DDoS, TCP’s SYN Flood, UDP Flood, etc. • Broadcast/multicast/unknown unicast storm-control • Supports encryption MD5, SHA-256, RSA-1024, AES256, etc.
L3 Features	• ARP • IP Interface 1K • Loopback interface • IPv6 Neighbor Discovery (ND)	• UDP helper • IPv6 tunneling • IGMP Proxy Reporting • VRRP v2/v3

L3 Routing	• Static routing
	• Default routing
	• Policy-based Route (PBR)
	• Null route
	• Bidirectional Forwarding Detection (BFD)
	  • IPv4/IPv6 static route
	  • OSPF
	  • BGP, BGPv4
	• OSPF
	  • Route Redistribution
	  • OSPF v2/v3
	  • OSPF v2/v3
	  • OSPF Passive Interface
	  • Bidirectional Forwarding Detection (BFD)
	  • Stub/NSSA Area
	  • OSPF
	• Graceful Restart (GR) Helper for OSPF
	  • BGP, BGPV4
	• Route Preference
		• RIP
		  • RIP v1/v2
		  • RIPng
		• Route Redistribution
		  • Default route
		  • Static route
		  • RIP
		  • RIPng
		  • OSPF
		  • BGP
		  • OSPF
		  • BGP, BGPV4,MPBGP

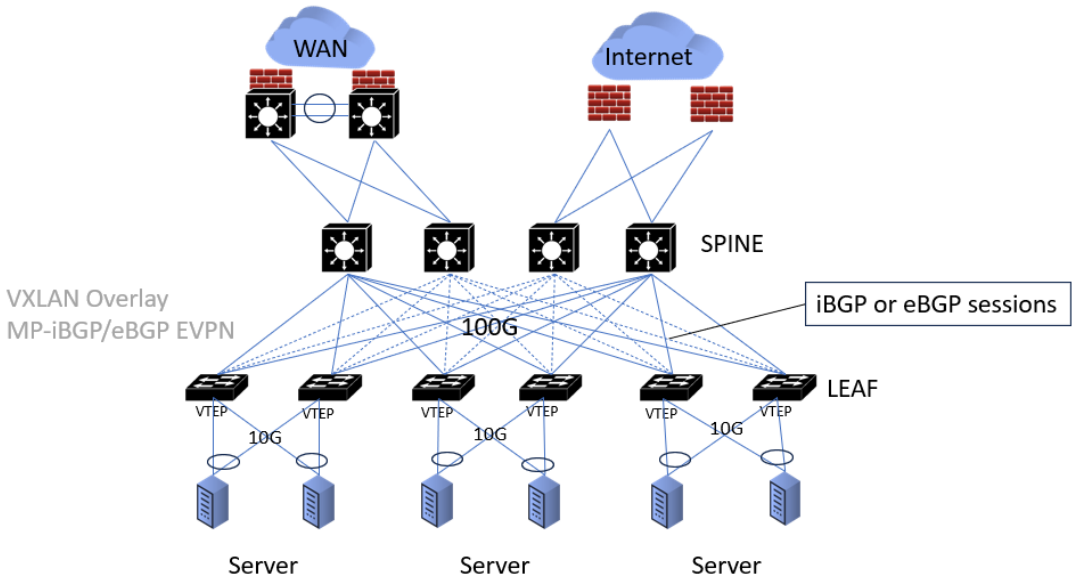
Management	• Web-based GUI
	  • Support IPv4/IPv6 access
	  • Support SSL (HTTPS)
	• Command Line Interface (CLI)
	• Telnet Server for IPv4/IPv6 access
	• Telnet Client for IPv4/IPv6
	• SNMP
	  • Support v1/v2c/v3
	  • Support IPv4/IPv6 access
	• SNMP Trap
	• TFTP Client for IPv4/IPv6
	• FTP Client for IPv4/IPv6
	• IPv4 SFTP Server
	• RMONv1
	  • Supports 1, 2, 3, 9 groups
	• RMONv2
	  • Supports ProbeConfig group
		• LLDP/LLDP-MED
		• DHCP/DHCPv6 Local Relay
		• DHCP Server
		  • Support IPv4/IPv6 address assignment
		• Dual Images/ Dual Configurations
		• DNS Relay for IPv4/IPv6
		• DNS Client for IPv4/IPv6
		• Debug Command
		• Password recovery/ encryption
		• Ping/ Traceroute for IPv4/IPv6
		• sFlow
		• ZTP

L3 Features	• IPv6 Tunneling
	  • Static
	  • ISATAP
	  • 6to4	

L3 Multicast	• IGMP v1/v2/v3 • MLD v1/v2	• PIM-DM/SM
OAM (Operations, Administration and Maintenance)	• 802.3ah Ethernet Link OAM • Unidirectional Link Detection (UDLD) • Dying Gasp	• 802.1ag Connectivity Fault Management (CFM) • Y.1731 OAM • Optical Transceiver Digital Diagnostic Monitoring (DDM)

Typical Network Architecture

In a typical data center network architecture, the DXS-F3400-28SC switch serves as a Top-of-Rack (ToR) switch, providing high-density 10G server access. The DTS-F5000-32ZX switch is deployed as a spine node, forming the backbone of the spine-leaf architecture. In this design, the spine switches are interconnected with the leaf switches using 100G uplinks, ensuring high-bandwidth, low-latency communication across the fabric.



Ordering Information	
Part Number	***Description***
DXS-F3400-28SC	24* 10GE SFP+ ports & 6*100GE QSFP28 ports Layer 3 10GbE Managed Switch with 2 internal AC power supply
Optional 10 Gbe SFP+ Transceivers & DAC cable	
DEM-431XT	10GBASE-SR Multi-mode, OM1:33M/OM2:82M/OM3:300M
DEM-432XT	10GBASE-LR Single-mode, 10 km
DEM-410T	10GBASE-T up to 30 m with CAT 6A cable
DEM-CB100S	10G SFP+ to SFP+ 1 m Direct Attach Cable
DEM-CB300S	10G SFP+ to SFP+ 3 m Direct Attach Cable
Optional 1 Gbe SFP Transceivers	
DGS-712-G	1000BASE-T Copper SFP Transceiver
DEM-310GT/TW	1000BASE-LX Single-mode, 10 km
DEM-311GT	1000BASE-SX Multi-mode, 550 m
Optional 100G QSFP28 Transceivers4	
DEM-Q2810Q-LR4	100GBASE-LR4 QSFP28, Single-Mode 10 km LR4 transceiver
Optional 100G QSFP28 Direct Attach Cables	
DEM-CB100Q28	100G QSFP28 to QSFP28 1 m Direct Attach Cable