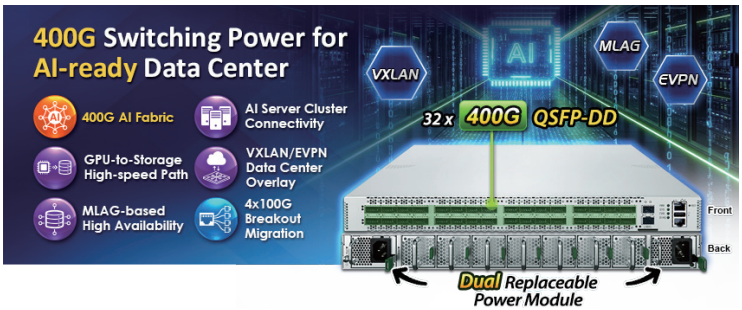
Layer 3 32-Port 400G QSFP-DD + 2-Port 10G SFP+ Managed AI Data Center Switch

PLANET is proud to introduce the DCS-7342-32D2X, a Layer 3 **32-port 400G QSFP-DD** and 2-port 10G SFP+ Managed AI Data Center Switch designed for next-generation data center fabrics where AI servers, GPU clusters, high-speed storage and East-West traffic require massive bandwidth.

Unlike a conventional cloud data center switch that primarily expands the server aggregation backbone, the DCS-7342-32D2X is positioned for AI-scale infrastructure. It provides a high-density 400G switching foundation for AI training, distributed inference, GPU-to-GPU communication, AI storage fabrics, high-performance computing, and 400G spine-leaf architectures.

With 32 x 400G QSFP-DD interfaces, advanced **Layer 3 routing**, **VXLAN/EVPN** virtualization, **MLAG** redundancy, ECMP load balancing, **BGP/OSPF/IS-IS** routing and carrier-grade management, the DCS-7342-32D2X helps organizations transition from cloud networking to AI-ready data center fabric without requiring an open system NOS such as SONiC.

For environments migrating from existing 100G infrastructure, the 400G QSFP-DD design can also support flexible 400G-to-4 x 100G breakout deployment models, enabling native 400G AI servers and 100G leaf/server connections to coexist in a phased upgrade architecture.



Physical Ports

- 32-Port 400G QSFP-DD interface
- 2-Port 10GBASE-X SFP+ interface
- RJ45 to DB9 console port for switch basic management and setup
- 1-port 10/100/1000T RJ45 Management Port
- 1 x USB 2.0 Type A for USB storage device (Configuration backup and restore)

Switching

- Features Store-and-Forward mode with wire-speed filtering and forwarding rates
- IEEE 802.3x flow control for full duplex operation
- 10K jumbo frame
- 128K MAC Address Table Size
- 24MB Shared Data Buffer
- Supports ESD Protection
  - Contact Discharge 4KV DC
  - Air Gap Discharge 8KV DC
- Automatic address learning and address aging

IP Routing Features

- IPv4/IPv6 hardware static routing
- IPv4 dynamic routing protocols such as RIPv1/v2, OSPFv2, IS-IS and BGP
- IPv4 Route policy/IPv4 Policy-based routing
- IPv6 dynamic routing protocols such as RIPng, OSPFv3, IS-ISv6 and BGP4+
- IPv6 Route policy
- Ethernet Virtual Private Network (EVPN)
- ECMP (Equal-Cost Multi-Path)
- VRF (Virtual Routing and Forwarding)
- Multiple tunneling techniques- GRE Tunnel
- BFD session binding static routes, VRRP, OSPF, BGP and RIP

Multicast Routing Features

- IPv4 IGMP v1/v2/v3
- Support PIM-SM (Protocol Independent Multicast–Sparse Mode) and PIM-SSM (Protocol Independent Multicast - Source-Specific Multicast), PIM-DM (Protocol Independent Multicast – Dense Mode)
- IPv6 MLD v1/v2 and MLD v1/v2 Snooping
- Support Multicast VLAN Registration for IPv6

Future-ready AI Data Center Interconnects: Advanced L3 Routing & Virtualization

The DCS-7342-32D2X is a high-performance Layer 3 data center switch engineered for AI-driven, high-speed and scalable environments. With a high-density configuration of 32 x 400G QSFP-DD ports, it serves as a foundation for AI fabric spine, 400G aggregation, high-performance computing and next-generation data center deployments.

- **Massive Routing Capacity**: optimized to support large-scale IPv4/IPv6 routing tables, facilitating expansive topologies and intensive control-plane workloads. Final entry count must be verified.
- **Advanced Dynamic Routing**: supports IPv4/IPv6 routing protocols including OSPFv2/v3, BGP4/BGP4+ and IS-IS for scalable inter-subnet communication.
- **Next-generation Data Center Overlays**: VXLAN and EVPN enable flexible, multi-tenant virtualized overlay networks for AI/cloud fabric deployment.
- **Carrier-grade Resilience**: BFD, ERPS, VRRP and MLAG enhance service continuity and reduce single points of failure across mission-critical fabrics.
- **Intelligent Traffic Management**: ECMP, PBR, QoS and multicast routing help optimize bandwidth utilization across GPU clusters, storage fabrics and data center services.
- **Robust Security Infrastructure**: TACACS+, RADIUS, SSH, 802.1X, ACL and control-plane protection help safeguard critical data center management and traffic paths.

Advanced Data Center Overlays: VXLAN & EVPN Integration

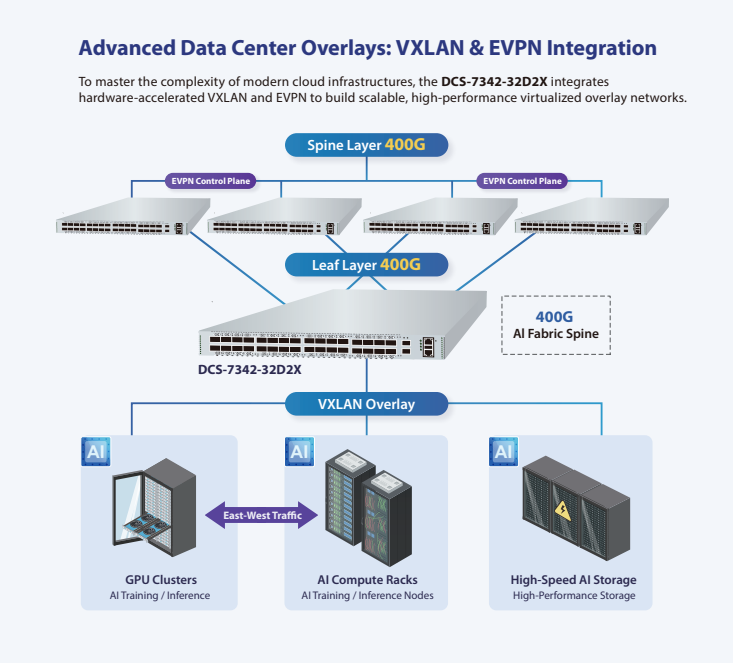
To master the complexity of modern cloud infrastructures, the **DCS-7342-32D2X** integrates hardware-accelerated VXLAN and EVPN to build scalable, high-performance virtualized overlay networks.

- **Efficient Virtualization**: VXLAN encapsulates L2 frames into L3 UDP packets, supporting up to 16 million isolated logical networks across a physical IP fabric.
- **BGP-Driven Control Plane**: Leveraging EVPN with BGP, the system intelligently distributes reachability info to minimize broadcast flooding and optimize traffic.
- **Seamless Workload Mobility**: Maintains L2 connectivity during VM or container migration across physical hosts, ensuring uninterrupted service delivery.
- **Optimized Routing**: Supports Integrated Routing and Bridging (IRB) and advanced multicast (PIM-SM/SSM) for efficient inter-segment traffic flow.
- **Secure Multi-Tenancy**: Features VFI (Virtual Forwarding Instance) to provide isolated, secure environments for multiple tenants over a shared infrastructure.
- **Wire-Speed Hardware**: The architecture handles all encapsulation at wire-speed, delivering ultra-low-latency forwarding for high-throughput applications.

- Support PIM-SM v6 (Protocol Independent Multicast-Sparse Mode IPv6)

Layer 2 Features

- Support **VLAN**
  - Support up to 4K VLANs
  - IEEE 802.1Q tagged VLAN
  - Provider Bridging (VLAN Q-in-Q) support (IEEE 802.1ad)
  - Protocol VLAN
  - MAC Based VLAN
  - Protocol Based VLAN
  - Private VLAN (Protected port)
  - Voice VLAN
  - Super VLAN
  - Guest VLAN
  - GVRP
- Support VXLAN Layer 2 Switching, Routing Switching, and Layer 3 GRE Tunnel
- Support BGP EVPN
- Support Priority Flow Control (PFC)
- Support Link Aggregation
  - IEEE 802.3ad Link Aggregation Control Protocol (LACP)
  - Cisco ether-channel (static trunk)
- Multi-Chassis Link Aggregation (MLAG)
  - Basic configuration
  - Blackhole flow protection
  - MLAG VRRP
  - MLAG dual active
- Support 802.1D STP, 802.1w RSTP and 802.1s MSTP
  - BPDU Protection
  - Root Protection
  - Loop Protection
  - Anti TC-BPDU Attack
- Support L2-L4 packet filtering
  - Filters based on MAC, IP, port, protocol, IP ToS, 802.1p priority, VLAN ID, SVLAN ID, VLAN range, etc.
- Support Multi-layer ring protection protocol (MRRP)
- Support Device Link Detection Protocol
- Support Bridge Protocol Filter
- Support Uplink Line Protection Protocol
- Loop detection to avoid broadcast loops
- Support port mirroring, flow mirroring, remote mirror, multi-destination, CPU mirror source/destination and
- ERSPAN
- Link Layer Discovery Protocol (LLDP)
- Compatible with Cisco uni-directional link detection(UDLD) that monitors a link between two switches and blocks the



Resilient Network Infrastructure via Seamless MLAG Integration

To ensure non-stop network services and maximize bandwidth utilization, the DCS-7342-32D2X supports advanced MLAG (Multi-Chassis Link Aggregation). This technology delivers carrier-grade reliability and architectural flexibility for mission-critical infrastructures.

- **Active-Active Redundancy**: MLAG allows two switches to function as a single logical entity, enabling active-active link aggregation for seamless traffic failover.
- **Simplified Domain Management**: Administrators can easily configure and identify the MLAG cluster through the Domain ID setting, ensuring synchronized and stable control-plane operations.
- **Loop-Free Architecture**: By leveraging MLAG with LACP, the network eliminates the need for Spanning Tree Protocol (STP) on access links, resulting in higher bandwidth efficiency and near-instant convergence.
- **High Availability for Spine-Leaf Fabrics**: MLAG enhances resilience at the leaf layer, providing redundant paths to ensure that a single chassis failure never interrupts data flow.
- **Seamless Scalability**: The combination of MLAG and hardware-based load balancing allows for linear bandwidth scaling as your data center infrastructure grows.

ports on both ends of the link if the link fails at any point between the two devices

- Support ITU-T G.8032 ERPS (Ethernet Ring Protection Switching)

Ethernet OAM

- Support IEEE 802.3ah EFM
- Support IEEE 802.1ag CFM
- Support ITU-T Y.1731OAM functions and mechanisms for Ethernet based network

Quality of Service

- Ingress shaper and egress rate limit per port bandwidth control
- 8 priority queues on all switch ports
- Traffic classification
  - IEEE 802.1p CoS
  - ToS/DSCP/IP Precedence of IPv4/IPv6 packets
  - IP TCP/UDP port number
  - Typical network application
- Strict priority and Weighted Round Robin (WRR) CoS policies
- Traffic-policing on the switch port
- DSCP remark

Multi-Protocol Label Switching

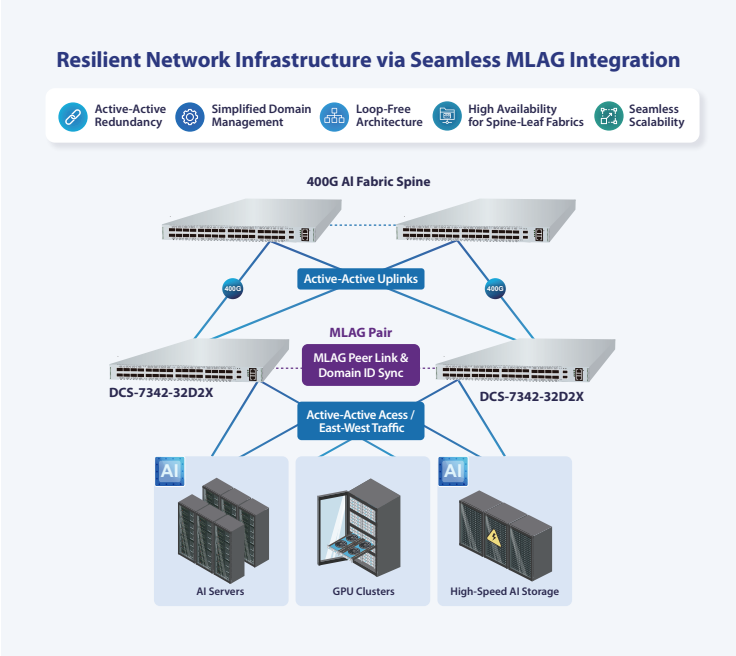
- Virtual Private Network
  - Layer 2 Virtual Private Network
  - Layer 3 Virtual Private Network
  - VPLS
  - VPWS
- Layered Service Provider Static
  - MPLS TE
  - RSVP
  - MPLS QoS
  - LDP (Label Distribution Protocol)

Multicast

- Support IPv4 IGMP snooping v1, v2 and v3
- Support IPv6 MLD snooping v1 and v2
- MVR (Multicast VLAN Registration)

Security

- Authentication
  - IEEE 802.1X port-based network access authentication
  - Built-in RADIUS client to cooperate with the RADIUS servers
  - AAA Authentication
  - RADIUS/TACACS+ login user access authentication
- Access Control List



Carrier-Grade Resilience for High-Scalability Network Environments

PLANET delivers a high-density, carrier-grade switching solution engineered to dominate the rigorous traffic demands of modern scalable networks. By integrating advanced Layer 3 software with next-generation hardware, this platform ensures seamless expansion and unwavering stability.

- **Scalable Layer 3 Routing Infrastructure**: Supports a comprehensive suite of routing protocols, including BGP, OSPF, and IS-IS, allowing for flexible and efficient path selection across complex, large-scale architectures.
- **Next-Generation Virtualization**: Hardware-accelerated VXLAN and EVPN capabilities enable the creation of scalable virtualized overlay networks, significantly improving workload mobility for cloud and multi-tenant environments.
- **Advanced Traffic Engineering & QoS**: Granular QoS Class-Maps and Policy-Maps ensure peak performance for mission-critical applications, while ECMP (Equal-Cost Multi-Path) optimizes bandwidth utilization and load balancing.
- **Carrier-Grade High Availability**: Features BFD (Bidirectional Forwarding Detection) for sub-second fault detection, paired with ERPS (ITU-T G.8032) and MRPP to guarantee maximum uptime and rapid self-healing.
- **Robust Security & Access Control**: A multi-layered security framework—including TACACS+, RADIUS, 802.1X, and hardware-based Anti-ARP Scan—safeguards management access and data integrity.

  - IP-based ACL/MAC-based ACL
  - ACL based on:
  - MAC Address
  - IP Address
  - Ethertype
  - Protocol Type
  - VLAN ID
  - DSCP
  - 802.1p Priority
  - Up to 512 entries
- ARP
  - ARP Detection
  - ARP Anti Attack
  - Anti ARP Scan
  - ARP Guard
  - ARP Binding
  - ARP Limit
  - ARP Inspection
- MAC Security
  - Static MAC
  - MAC Filtering
  - Blackhole MAC List
- Loging Filter
  - Telnet/SSH ACL filtering
  - Telnet/SSH IPv6 ACL filtering
- Port security for source MAC address entries filtering
- VLAN security for MAC address learning on VLAN
- DHCP snooping to filter distrusted DHCP messages
- IP source guard prevents IP spoofing attacks
- DoS attack prevention
- RBAC (Role Based Access Control)
- Link-Flapping detection

Management

- Support Console, Telnet and SSH v1.5/v2 terminal services
- SNMP Management
  - Support SNMPv1/v2/v3 network management protocols and standard MIB for general features
  - SNMP trap for system notification
  - Support RMON (Remote Monitoring)
- Support NETCONF network management protocol
- System maintenance
  - Firmware upload via TFTP
  - Configuration upload/download through FTP/TFTP
  - Hardware reset button for system reboot or reset to factory default
- Support fan temperature control for automatic adjustment
- Support temperature and fan monitoring with alerts

Intelligent Management & Advanced Security Framework

The DCS-7342-32D2X combines sophisticated automation protocols with robust security architecture to simplify operations and protect critical data paths.

- **Next-Gen Automation with NETCONF**: Supports the **NETCONF** protocol to enable programmable network management and seamless integration with modern orchestration tools.
- **Real-Time Traffic Analysis**: Features **sFlow** technology for high-performance, hardware-based monitoring of network traffic, providing deep visibility into bandwidth usage and potential anomalies.
- **Carrier-Grade AAA Security**: Implements **TACACS+**, **RADIUS**, **and SSH v2.0** to ensure encrypted management access and centralized authentication.
- **Proactive Control-Plane Protection**: Equipped with **Anti-ARP Scan** and hardware-based DDoS attack prevention to safeguard the switch CPU from malicious traffic.
- **Precision Timing & Monitoring**: Supports **NTP** for synchronized timekeeping and comprehensive **RMON** for proactive remote monitoring and diagnostics.
- **Eco-Friendly Hardware Efficiency**: Features intelligent **fan temperature control** that automatically adjusts speeds to reduce power consumption and noise.

Sustainable Infrastructure: Intelligent Power Management & Green Efficiency

As environmental responsibility becomes a core requirement for modern IT, the DCS-7342-32D2X integrates advanced power-saving technologies without compromising high-performance data center demands.

- **Intelligent Fan Speed Control**: Features a smart cooling architecture with redundant, hot-swappable fans. These fans dynamically adjust rotational speeds based on real-time temperature sensors, significantly reducing power consumption and acoustic noise during lower traffic periods.
- **High-Efficiency Redundant Power Supplies**: Equipped with hot-swappable AC power modules. The redundant design not only ensures maximum uptime but also optimizes load sharing to achieve peak energy efficiency.
- **Hardware-Level Power Scaling**: The advanced chipset architecture is designed to scale power consumption based on port link status. Unused ports are automatically placed in a low-power state, lowering the overall energy footprint of the rack.
- **Optimized Thermal Design**: The chassis airflow is engineered for professional front-to-back cooling, contributing to better overall Data Center PUE by aligning with hot/cold aisle containment strategies.
- **Sustainable OPEX Reduction**: By combining intelligent energy management with high-density performance, the DCS-7342-32D2X helps organizations reduce Total Cost of Ownership (TCO) and meet corporate carbon reduction goals.

- SNTP Network Time Protocol (Simple Network Time Protocol) and Network Time Protocol (NTP)
- Support sFlow v4/v5
- DNS Client Status
- Support IPv4 ARP/ARP Proxy
- Support IPv6 ICMPv6/ Path MTU Discovery(PMTUD)/ PPPoE+/ Neighbor Discovery Protocol (NDP)
- Log and alarm
  - CPU usage display and alarm
  - Memory usage display and alarm
  - Temperature, PSU, FAN, status display and alarm
  - Operation logs
  - Management of logs, alarms, and debugging information
- Network Diagnostic
  - ICMPv6/ICMPv4 remote ping
  - Traceroute
  - DDM (Digital Diagnostic Monitor)
- DHCP Functions
  - DHCP Client/Relay/Server
  - DHCP Snooping
  - DHCP Option 82/252
  - DHCPv6 Client/Relay/Server
  - DHCPv6 Snooping

Redundant Power System

- Support dual power redundancy and redundant backup for two sets of fans (Include 2 power DCS-PWR1600-ACHDC)
- Hot-swappable power modules and fans

Hardware

- 19-inch rack mountable; 1U height
- Reset button for resetting to default setting and system reboot
- LED indicators for power alert, fan alert and Ethernet interfaces
- FCC Part 15 Class A, CE

1-to-4 Port Expansion: 400G to 4 x 100G Breakout Solution

Maximize your hardware investment by transforming a single 400G QSFP-DD port into four independent 100G QSFP28 connections. This professional-grade breakout cable provides the most efficient way to link high-capacity core switches to multiple high-performance servers or storage nodes.

Core Advantages

- **1-to-4 Port Multiplying**: Unlock 4 x 100Gbps lanes from a single 400G interface, significantly increasing available port count for downstream devices.
- **Direct 400G Utilization**: Fully utilize the massive 400Gbps bandwidth of your DCS-7342-32D2X without wasting unused capacity.
- **Seamless Hardware Integration**: Specifically engineered for 1-Port 400G/QSFP-DD modules, ensuring perfect synchronization across all four 100G lanes.
- **Carrier-Grade Efficiency**: Eliminates the need for multiple expensive 100G transceivers and complex patch panels, reducing both failure points and costs.
- **Low-Latency Fabric**: Direct-attach architecture ensures near-zero signal delay, ideal for high-frequency trading and cloud computing.
- **Spine-Leaf Optimization**: Connect one 400G Spine port directly to four 100G Leaf switches or servers, creating a highly scalable and cost-effective network fabric.

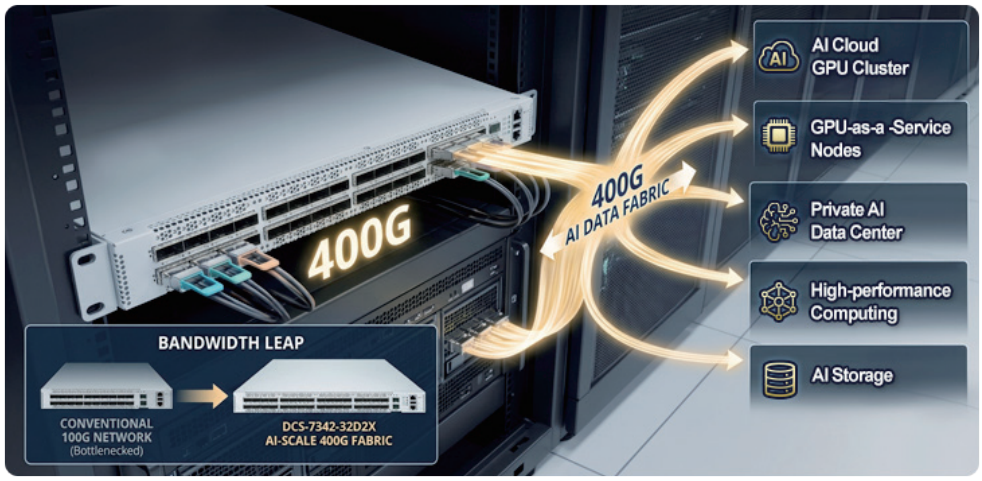
Applications

AI-Ready 400G Fabric for Next-generation Data Centers

As AI workloads continue to reshape data center architecture, network traffic is shifting from traditional North-South application delivery to mas sive East-West data exchange between GPU servers, high-speed storage systems and compute clusters. The DCS-7342-32D2X is designed to provide the high-bandwidth switching foundation required for AI training, distributed inference, high-performance computing and AI storage fabrics.

With 32 x 400G QSFP-DD ports, the switch can operate as a high-performance AI fabric spine, a 400G aggregation switch, or a flexible migration platform through 4 x 100G breakout. This allows organizations to build scalable spine-leaf networks for both native 400G AI servers and existing 100G infrastructure.

400G AI Fabric for Next-generation Data Centers



Application Scenarios

- **AI Training Cluster**: Acts as a high-bandwidth East-West switching fabric between GPU servers, enabling large-scale model training, distributed compute synchronization and high-throughput data exchange.
- **Distributed AI Inference Farm**: Interconnects multiple GPU inference servers, application servers and storage services to support high-volume AI request processing with scalable service delivery.
- **AI Storage Fabric**: Provides a 400G path between GPU servers and NVMe-oF/all-flas h storage, reducing data feeding bottlenecks that may lower GPU utilization.
- **400G Spine in Leaf-Spine Architecture**: Serves as a high-density 400G spine for multiple 100G/400G leaf switches, improving rack-to-rack fabric bandwidth and supporting larger data center expansion.
- **Enterprise Private AI Data Center**: Provides a deployable Layer 3 managed switch platform for organizations building private AI infrastructure without adopting an open system NOS such as SONiC.
- **HPC and Research Computing**: Supports high-performance compute clusters, simulation workloads, engineering analysis and research environments that require low-latency, high-throughput node-to-node communication.

Specifications

Product	DCS-7342-32D2X
Hardware Specifications	
Interfaces	32-port 400G QSFP-DD interface 2-port 10GBASE-X SFP+ interface Backward compatible with 1000BASE-SX/LX/BX SFP transceiver
Console Port	1 x RJ45 to DB9 console port (115200, 8, N, 1)
Management Port	1 x 10/100/1000BASE-T RJ45 port
USB	1 x USB 2.0 Type A for USB storage device (Configuration backup and restore)
Fan	6+1 hot-pluggable fan modules
Reset Button	< 6 sec: System reboot > 6 sec: Factory default
Enclosure	Metal
Installation	19-inch Rack-mount kit
Dimensions (W x D x H)	440 x 630 x 44 mm, 1U height
Weight	14.2kg
ESD Protection	±8KV air gap discharge ±6KV contact discharge
Power Requirements	100~240V AC, 50/60Hz Rated input current: 0~12A(100VAC) ; 0~10A(230VAC)
	Input voltage range: 180~310V Input current range: 0~10A
Power Consumption	System on with dual AC Max. 369 watts/1,259 BTU
	Full loading with dual AC Max. 1,396 watts/4,764 BTU
Redundant Power System	Dual power redundancy and redundant backup for two sets of fans (Include 2 power DCS-PWR1600-ACHDC) Hot-swappable power modules and fans
LED Indicators	**System:** Power (Green) Alarm (Amber) SYS (Green). System Boot Process (Amber/Green twinkle alternately) AC Power (PSU) (Green) FAN(Green). Fan Failure (Amber) Diag (Green). **Per 10/100/1000T RJ45 Port(Management Port):** Speed (Right side): 10Mbps (Off) 100Mbps (Amber) 1000Mbps (Green) LNK/ACT(Left side): (Green) **Per 400G QSFP-DD interfaces (Port-1 to Port-32)** 100G LNK/ACT (Amber) 400G LNK/ACT (Green) **Per 10G SFP+ interfaces (Port-33 to Port-34)** 1G LNK/ACT (Amber) 10G LNK/ACT (Green)
Switching Specifications	
Switch Architecture	Store-and-Forward
Switch Fabric	25.6Tbps/non-blocking
Throughput@64Bytes	5600Mpps@64Bytes
ARP Table	96K
Address Table	128K entries, automatic source address learning and aging
IP Interfaces	Max. 4K (4094) VLAN interfaces
Routing Table	IPv4 216K entries IPv6 108K entries
Multicast Table	16K
ACL Table	2048
Shared Data Buffer	24MB
Jumbo Frame	10K bytes

Flow Control	IEEE 802.3x pause frame for full duplex Back pressure for half duplex
Flash	1G
RAM	8GB
IPv4 Layer 3 Functions	
IP Routing Protocols	IPv4 hardware static routing IPv4 dynamic routing protocols RIPv1/v2, OSPFv2, IS-IS and BGP
Multicast Routing Protocol	IPv4 IGMP v1/v2/v3 PIM-DM/PIM-SM/PIM-SSM
VRRP Group	255
Routing Features	IPv4 Route policy/IPv4 Policy-based routing BFD session binding static routes, VRRP, OSPF, BGP and RIP ECMP VRF (Virtual Routing and Forwarding) Multiple tunneling techniques- GRE Tunnel
IPv6 Layer 3 Functions	
IP Routing Protocol	IPv6 dynamic routing protocols RIPng, OSPFv3, IS-ISv6 and BGP4+ IPv6 hardware static routing
Multicast Routing Protocol	IPv6: PIM-SM v6
Routing Features	IPv6 hardware static routing IPv6 Route policy
Tunneling	Manual tunneling Automatic tunneling IPv4 over IPv6 tunneling ISATAP tunneling
Layer 2 Management Functions	
VXLAN	VXLAN Layer 2 Switching, Routing Switching IPv4 over IPv6 Tunnel GRE Tunnel BGP EVPN (Ethernet Virtual Private Network) Priority Flow Control (PFC)
MLAG	Blackhole Flow Protection MLAG VRRP MLAG dual active
MPLS	Virtual Private Network - Layer 2 Virtual Private Network - Layer 3 Virtual Private Network - VPLS - VPWS Layered Service Provider Static - MPLS TE - RSVP-TE - MPLS QoS - LDP (Label Distribution Protocol)
Port Configuration	Port disable/enable Auto-negotiation 10/100/1000Mbps full and half duplex mode selection Flow control disable/enable Port link capability control
Port Status	Display each port's speed duplex mode, link status, flow control status, auto-negotiation status, trunk status
Mirror	Port Mirror Flow Mirror Remote Mirror Multi-destination Mirror CPU as mirror source or destination Encapsulated Remote SPAN (ERSPAN)

VLAN	IEEE 802.1Q tagged VLAN Q-in-Q tunneling Subnet-based VLAN Protocol-based VLAN MAC-based VLAN Private VLAN (Protected port) Voice VLAN Super VLAN Guest VLAN GVRP Up to 4K VLAN groups
Link Aggregation	IEEE 802.3ad LACP/static trunk
Spanning Tree Protocol	IEEE 802.1D Spanning Tree Protocol IEEE 802.1w Rapid Spanning Tree Protocol IEEE 802.1s Multiple Spanning Tree Protocol BPDU Guard STP Root Guard
Multicast	IPv4 IGMP snooping v1, v2 and v3 IPv6 MLD snooping v1 and v2 MVR (Multicast VLAN Registration) DC-SCM(Control Multicast)
Bandwidth Control	Port-based bandwidth limitation Supports flow/VLAN-based bandwidth limiting (single-rate two-color, single-rate three-color, dual-rate three-color) Implements priority-based scheduling and priority mapping for flows
Storm Control	Implements DLF (Destination Lookup Failure) storm suppression Supports multicast storm suppression Supports broadcast storm suppression
QoS	Ingress shaper and egress rate limit per port bandwidth control 8 priority queues on all switch ports Traffic classification - IEEE 802.1p CoS - ToS/DSCP/IP Precedence of IPv4/IPv6 packets - IP TCP/UDP port number - Typical network application Strict priority and Weighted Round Robin (WRR) CoS policies Traffic-policing on the switch port DSCP remark RoCE v2: - PFC(Priority-based Flow Control) - ECN(Explicit Congestion Notification)
UDLD	Compatible with Cisco uni-directional link detection(UDLD)
Ring	Supports ERPS, and complies with ITU-T G.8032
Ethernet OAM	IEEE 802.3ah EFM EEE 802.1ag CFM ITU-T Y.1731OAM functions and mechanisms for Ethernet based network
Security Functions	
Authentication	IEEE 802.1X port-based network access authentication Built-in RADIUS client to cooperate with the RADIUS servers AAA Authentication RADIUS/TACACS+ login user access authentication
Access Control List	IP-based ACL/MAC-based ACL ACL based on: - MAC Address - IP Address - Ethertype - Protocol Type - VLAN ID - DSCP - 802.1p Priority Up to 512 entries

ARP	ARP Detection ARP Anti Attack Anti ARP Scan ARP Guard ARP Binding ARP Limit ARP Inspection
MAC Security	Static MAC MAC Filtering Blackhole MAC Lis
Loging Filter	Telnet/SSH ACL Filtering Telnet/SSH IPv6 ACL Filtering
Security	Port security for source MAC address entries filtering VLAN security for MAC address learning on VLAN DHCP snooping to filter distrusted DHCP messages IP source guard prevents IP spoofing attacks DoS attack prevention RBAC (Role Based Access Control) Link-Flapping detection
DHCP Functions	DHCP Client/Relay/Server DHCP Snooping DHCP Option 66/67 DHCP Option 82/252 DHCPv6 Client/Relay/Server DHCPv6 Snooping
Management Functions	
Basic Management Interfaces	Console; Telnet; SNMP v1, v2c
Secure Management Interfaces	SSHv1.5/v2, SNMPv3
System Management	SNMP trap for system notification RMON (Remote Monitoring) NETCONF network management protocol System maintenance - Firmware upload via TFTP - Configuration upload/download through FTP/TFTP - Hardware reset button for system reboot or reset to factory default Fan temperature control for automatic adjustment Temperature and fan monitoring with alerts SNTP Network Time Protocol (Simple Network Time Protocol) Network Time Protocol (NTP) sFlow v4/v5 DNS Client Status IPv4 ARP/ARP Proxy IPv6 ICMPv6/ Path MTU Discovery(PMTUD)/PPPoE+/ Neighbor Discovery Protocol (NDP)
Log and Alarm	CPU usage display and alarm Memory usage display and alarm Temperature, PSU, FAN, status display and alarm Operation logs Management of logs, alarms, and debugging information
Network Diagnostic	ICMPv6/ICMPv4 remote ping Trance Route DDM (Digital Diagnostic Monitor) Device Link Detection Protocol Bridge Protocol Filter Uplink Line Protection Protocol Loop detection to avoid broadcast loops

SNMP MIBs	RFC 1213 MIB-II RFC 2573 SNMP Target MIB RFC 2573 SNMP Notification MIB RFC 2819 RMON (1,2,3,9) RFC 2863 IF-MIB RFC 3414 User-based Security Model MIB RFC 3415 View-based Access Control Model (VACM) MIB RFC 3418 SNMPv2-MIB RFC 3635 Etherlike MIB RFC 4188 BRIDGE-MIB RFC 4293 IP-MIB RFC 4295 IPv6-ICMP-MIB RFC 4668 RADIUS Authentication Client MIB LLDP MIB	
Standards Conformance		
Regulatory Compliance	FCC Part 15 Class A	
Standards Compliance	IEEE 802.3 10BASE-T Ethernet IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3 40G, 400G Ethernet standards IEEE 802.3x flow control and back pressure IEEE 802.3ad port trunk with LACP IEEE 802.1D Spanning Tree Protocol IEEE 802.1w Rapid Spanning Tree Protocol IEEE 802.1s Multiple Spanning Tree Protocol IEEE 802.1p Class of Service IEEE 802.1Q VLAN tagging IEEE 802.1X Port Authentication Network Control IEEE 802.1ab LLDP IEEE 802.3ah OAM IEEE 802.1ag Connectivity Fault Management (CFM) RFC 768 UDP	RFC 793 TCP RFC 791 IP RFC 792 ICMP RFC 2068 HTTP RFC 1112 IGMP v1 RFC 2236 IGMP v2 RFC 3376 IGMP v3 RFC 2710 MLD v1 RFC 3810 MLD v2 RFC 1058 RIP v1 RFC 2453 RIP v2 RFC 2328 OSPF v2 RFC 5340 OSPF v3 ITU-T G.8032 ERPS Ring ITU-T Y.1731 Performance Monitoring
Environment		
Operating	Temperature: 0 ~ 50 degrees C Relative Humidity: 5 ~ 90% (non-condensing)	
Storage	Temperature: -10 ~ 70 degrees C Relative Humidity: 5 ~ 90% (non-condensing)	

Ordering Information

DCS-7342-32D2X	Layer 3 32-Port 400G QSFP2-DD + 2-Port 10G SFP+ Managed AI Data Center Switch
DCS-PWR1600-ACHDC	1600-watt AC power supply for DCS-7342-32D2X
QDD-400G-DR4	400G QSFP-DD Transceiver, 400G-DR4, MPO-12 SM - 500m
QDD-400G-SR8	400G QSFP-DD Transceiver, 400G-SR8 MPO MM - 100m
CB-QDD-DAC-3M	400G QSFP-DD DAC Cable - 3m
DCS-RMK	Rack Mount Slide Rails for DCS-7342 series

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