

DS-3E7800 Series



Product overview

The DS-3E7800 series switch is designed for the next-generation enterprise core networks. It adopts modular design, uses proprietary operating system and provides the following features:

- Triple times of per slot bandwidth and further enhanced chassis performance
- Rich Layer 2 & Layer 3 functionalities

The DS-3E7800 series switch can meet different port density and performance requirements.

Ordering Information

Product ID	Product Description
DS-3E7806	DS-3E7806 Ethernet Switch Chassis (6* LPU slots, 2* MPU slots, 2* Power Module slots)

Module information

Product	Module information
Main Processing Unit	DS-3E7806 Main Processing Unit with Switching
Power Supply Module	Ethernet Switch AC Power Supply Module, 650W
	Ethernet Switch DC Power Supply Module, 650W
Interface Module	48-Port 10/100/1000BASE-T Ethernet Copper Interface Module (RJ45)
	48-Port 1000BASE Ethernet Optical Interface Module (SFP, LC)
	24-Port 10/100/1000BASE-T Ethernet Copper Interface (RJ45)+20-Port 1000BASE Ethernet Optical Interface (SFP, LC)+4-Port 10G Ethernet Optical Interface Module (SFP+, LC)
	16-Port 10G Ethernet Optical Interface (SFP+, LC)+24-Port 1000BASE Ethernet Optical Interface Module (SFP, LC)

Features and benefits

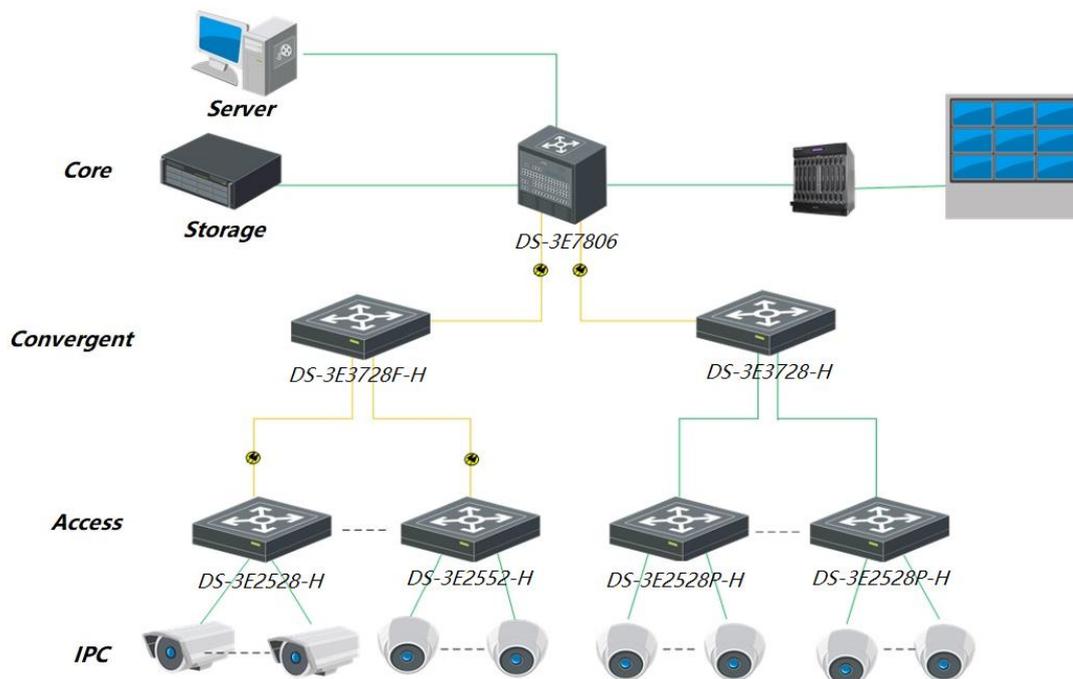
- The DS-3E7800 switch provides a wealth of high-density 10G/40G interface cards, which can meet the existing and future application needs of enterprise networks :
 - Support 48-Port 10/100/1000BASE-T Ethernet Copper Interface Module.
 - Support 48-Port 1000BASE Ethernet Optical Interface Module.
 - Support 24-Port 10/100/1000BASE-T Ethernet Copper Interface(RJ45)+20-Port 1000BASE Ethernet Optical Interface(SFP,LC)+4-Port 10G Ethernet Optical Interface Module.
 - Support 16-Port 10G Ethernet Optical Interface(SFP+,LC)+24-Port 1000BASE Ethernet Optical Interface Module.
- The virtualization technology allows each slave device in the stack to serve as the backup of the master, creating control and data link redundancy, as well as uninterrupted layer-3 forwarding. This improves the reliability, avoids unplanned business downtime and serves to improve overall performance. When the master device fails, traffic remains uninterrupted.
- The DS-3E7800 switch series supports Multi-VRF function, which can be used as MCE equipment supporting L3 MPLS VPN and L2 MPLS VPN (Martini and Kompella).
- The DS-3E7800 switch series comes with IPv4/IPv6 dual-stack platform that provides sophisticated IPv4/IPv6 solutions by supporting multiple tunnels, IPv4/IPv6 Layer 3 routing protocols, multicasting, and policy-based routing..
- The DS-3E7800 switch series supports hardware level encryption technology MACsec (802.1ae), which is an industry-standard security technology that provides secure communication for all traffic on Ethernet links. Compared with traditional application based software encryption technology, MACsec provides point-to-point security on Ethernet links between directly connected nodes and is capable of identifying and preventing most security threats.

Specifications

Item	DS-3E7806
Switching capacity	1.28Tbps
Forwarding capacity	960Mpps
MPU slots	2
LPU slots	6
Operating environment	Temperature: 0° C to 45° C (32° F to 113° F) Humidity: 5% to 95% (non-condensing)
Input voltage	100~240V AC; 50/60Hz; 16A
Maximum power consumption	1640W
Dimension (H x W x D)	575mm×436mm×420mm (13U)
Fully loaded weight (kg)	<75 kg
Availability	99.999%
MTBF(yrs)	27.9
MTTR(hrs)	1
Ethernet	IEEE 802.1P (CoS priority) IEEE 802.1Q VLAN (up to 4094 VLANs) IEEE 802.1ad (QinQ), selective QinQ and Vlan mapping LLDP Static MAC configuration Limited MAC learning Port mirroring and traffic mirroring Port aggregation, port isolation, and port mirroring IEEE 802.1D (STP)/802.1w (RSTP)/802.1s (MSTP) IEEE 802.3ad (dynamic link aggregation), static port aggregation, and multi-chassis link aggregation Jumbo frame Multicast VLAN DHCP snooping Broadcast/multicast/unknown unicast storm suppression Port based, Protocol based, Subnet-based and MAC based VLAN
Routing	Static routing, RIP v1/v2, OSPF, IS-IS, and BGP4 IPv4/IPv6 ECMP VRRP IPv4/IPv6 dual stack IPv6 static routing, RIPng, OSPFv3, IS-ISv6, and BGP4+ VRRPv3
Multicast	PIM-DM, PIM-SM, PIM-SSM, MSDP, MBGP, and Any-RP

	<p>IGMP V1/V2/V3 and IGMP V1/V2/V3 snooping</p> <p>MLD V1/V2 and MLD V1/V2 snooping</p>
ACL/QoS	<p>Standard and extended ACLs</p> <p>Ingress and egress ACLs</p> <p>VLAN ACLs</p> <p>Global ACLs</p> <p>Ingress/Egress CAR with 8K granularity</p> <p>Diff-Serv QoS</p> <p>802.1P/DSCP Priority marking and remarking</p> <p>802.1p, TOS, DSCP, and EXP priority mapping</p> <p>Flexible queue scheduling algorithms including SP (Strict priority), WRR (Weighted Round Robin), SP+WRR, WFQ (Weighted Fair Queueing)</p> <p>Traffic shaping</p> <p>Rate limiting</p> <p>Congestion avoidance, Tail-Drop and WRED</p>
Security	<p>Hierarchical user management and password protection</p> <p>Portal authentication</p> <p>MAC authentication</p> <p>SSHv1.5/SSHv2</p> <p>Basic and advanced Access Control Lists for packet filtering</p> <p>OSPF, RIPv2, BGPv4 plain text and MD5 authentication</p> <p>IP address, VLAN ID, MAC address multiple binding combination</p> <p>uRPF</p> <p>Active/standby data backup</p> <p>CPU DoS Protection</p> <p>ARP Attack Protection</p>
System management	<p>SNMP v1/v2/v3</p> <p>NQA (Network Quality Analysis)</p> <p>RMON and groups 1, 2, 3 and 9</p> <p>Fault alarm and automatic fault recovery</p> <p>System logs</p> <p>Device status monitoring mechanism, including the CPU engine, backplane, chips and other key components</p>
HA	<p>1+1 redundancy for key components such as MPUs (MPU includes CPU + Switching Fabric)</p> <p>1+1 redundancy for power modules</p> <p>Passive backplane</p> <p>Hot swapping for all components</p> <p>Real-time data backup on active/standby MPUs</p> <p>CPU protection</p> <p>VRRP</p> <p>NSR (Nonstop Routing)/GR (Graceful Restart) for OSPF/BGP/IS-IS/RSVP</p> <p>Port aggregation and multi-card link aggregation</p> <p>BFD for VRRP/BGP/IS-IS/OSPF/RSVP/static routing</p> <p>Ethernet OAM (802.1ag and 802.3ah)</p> <p>Smart-Link</p> <p>ISSU (In-service Software Upgrade)</p>

▪ **Typical Application**



▪ **Available Model**

- DS-3E7806
- DS-3E7806-MPU
- DS-3E7800-16X24F-SC
- DS-3E7800-24T20F4X-SC
- DS-3E7800-48F-SC
- DS-3E7800-48T-SC

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