DS-3E3950-H(B)(UHK)
Full 10G SFP+ Layer 3 Enhanced Switch

The DS-3E3900-H(B)(UHK) series of Layer 3 10 Gigabit Ethernet switches are designed with ultra-high switching capacity, providing 100G uplink. These intelligent managed switches are tailored for network environments that require high port density and easy installation, based on industry-leading hardware architecture. They feature a dual hot-swappable power supply and dual hot-swappable fan design, ensuring high reliability at the hardware level. Additionally, they incorporate new energy-saving and innovative architecture designs to achieve the lowest power consumption for 10 Gigabit access switches, offering users a green, environmentally friendly, and energy-efficient Ethernet switch product.

- Supports a wide range of flexible port expansion cards, including 8-port 10G SFP+, 2-port 40G QSFP+, 2-port 40G/100G QSFP28, 2-port 10G/25G SFP28, and 8-port 1/2.5/5G RJ45 cards. These cards provide high-density port expansion capabilities, meeting the needs of large network aggregation or core deployment in small and medium networks, as well as the configuration requirements for hybrid copper and fiber networks.
- Implements a hardware-based IPv4/IPv6 dual-stack platform with rich IPv4 and IPv6 Layer 3 routing protocols, multicast technology, and policy-based routing mechanisms, providing comprehensive IPv4/IPv6 solutions for users.
- Supports virtualization technology, which connects multiple physical devices to form a single logical device. Users can manage and use these multiple devices as a single device.
- Supports centralized MAC address authentication, 802.1x authentication, and PORTAL authentication. It also supports dynamic or static binding of user identifiers such as user accounts, IP, MAC, VLAN, and ports, and dynamically distributes user policies (VLAN, QoS, ACL). Processor: 1600 MHz CPU and Storage: 1024 MB Flash Memory
- Provides enhanced ACL control logic with support for large-capacity inbound and outbound port ACLs and VLAN-based ACL distribution. This simplifies the user configuration process and avoids ACL resource waste. Additionally, the series supports unicast reverse path forwarding (uRPF), which verifies the source address route when a packet is received on an interface. If the route does not exist, the packet is discarded, effectively preventing source address spoofing in the network.
- Offers multiple levels of reliability protection at both the device and link levels.
- Debugging Interfaces: 1 × MGT Port, 1 × Micro USB Console Port, 1 × USB Port
- Supports hot-swappable dual AC/DC power modules and dual fan reliability design. The power modules and fans can be configured flexibly based on actual environmental needs. The device also supports power and fan failure detection and alarms, and can automatically adjust fan speed based on temperature changes, enhancing overall reliability.
- Network Redundancy Protocols: Includes support for STP Root Guard, BPDU Guard, and G.8032 ERPS for enhanced loop protection and rapid fault recovery in ring topologies.
- Supports L2 (Layer 2) to L4 (Layer 4) packet filtering functions, providing flow classification based on source MAC address, destination MAC address, source IP address, destination IP address, TCP/UDP port number, protocol type, and VLAN. It offers flexible queue scheduling algorithms that can be set based on both ports and queues, supporting SP (Strict Priority), WRR (Weighted Round Robin), and SP+WRR modes.
- Supports configuration and monitoring via Web Client and Command Line Interface (CLI).

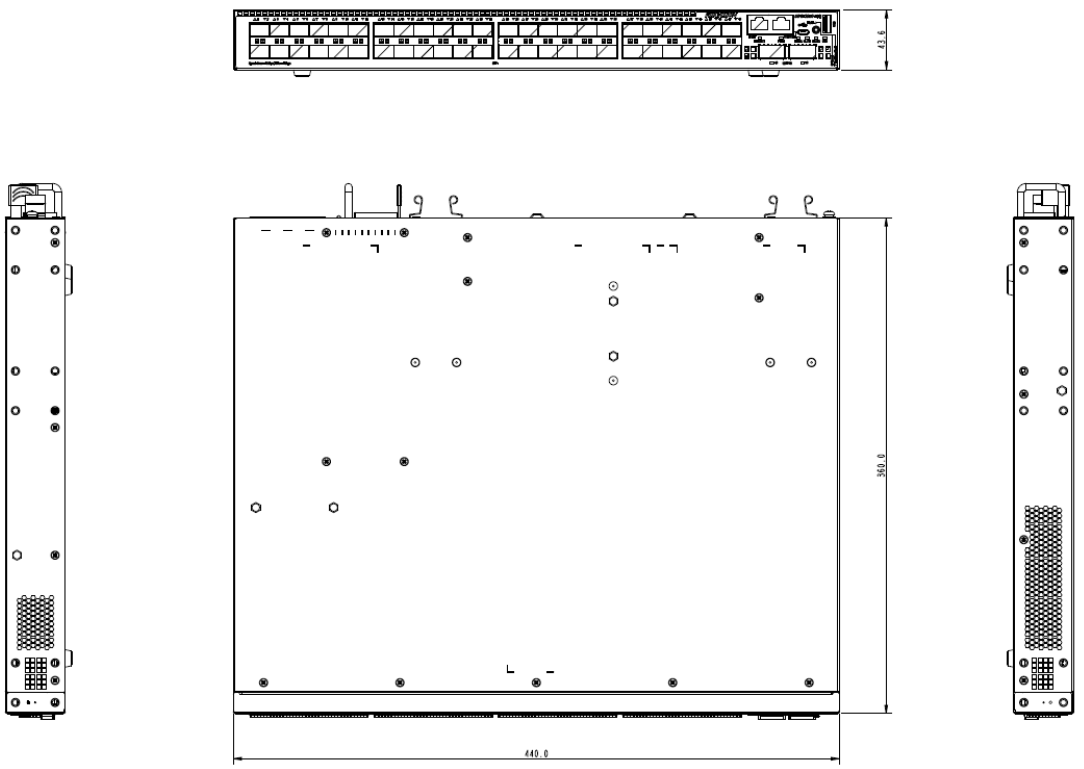
▪ Specification

Model		DS-3E3950-H(B)(UHK)
General	Shell	Metal
	Weight	≤ 7.4 kg
	Dimensions (W × H × D)	440 mm× 43.6 mm × 360 mm
	Operating Temperature	-5 °C to 45 °C (23 °F to 113 °F)
	Storage Temperature	-40 °C to 70 °C (-40 °F to 158 °F)
	Operating Humidity	10% to 95% (no condensation)
	Relative Humidity	5% to 95% (no condensation)
	Power Supply	AC：100 V～240 V AC，50/60 Hz
	Installation Mode	Rack (equipped with mounting ears)
	Max. Power Consumption	Single AC：249 W ， Dual AC：251 W
	Power Consumption in Idle	Single AC：44 W ， Dual AC：49 W
	Surge Protection	6 kV
	MTBF (hours)	More than 400,000
Network Parameters	Ports	48 10GE SFP+ Ports，2 40/100GE QSFP28 Ports, 2 expansion slots
	Management Port	1 × RJ45 console
	Switching Capacity	Whole-Device Performance: 2.56 Tbps
	Packet Forwarding Rate	Whole-Device Performance:1000Mpps
	Jumbo Frame	＞10,000 Bytes
Software Function	Ethernet	LLDP Static MAC configuration Port mirroring and traffic mirroring Port isolation STP/RSTP/MSTP IEEE 802.3ad (dynamic link aggregation) and static port aggregation RRPP/ERPS (Ethernet Ring Protection Switching) VRRP
	VLAN	802.1Q (up to 4K VLAN) Protocol-based VLAN MAC-based VLAN GUEST VLAN VLAN mapping MVRP, Inter-VLAN interface: 32

	IP Routing	Supports static routing for IPv4/IPv6, dual-stack Supports RIPv1/v2, RIPng Supports OSPFv1/v2, OSPFv3 Supports BGP4, BGP4+ for IPv6 Supports IS-IS, IS-IS V6 Supports equal-cost multipath (ECMP) routing, policy-based routing Supports VRRP/VRRPv3
	Stacking	Supports IRF2 (Intelligent Resilient Framework 2) Supports distributed device management, distributed link aggregation, and distributed resilient routing Supports stacking via standard Ethernet interfaces Supports local stacking and remote stacking
	DHCP	DHCP/DHCP v6 Client DHCP/DHCP v6 Snooping DHCP Snooping option82 DHCP/DHCP v6 Relay DHCP/DHCP v6 Server DHCP/DHCP v6 Relay
	Multicast	IGMP V1/V2/V3 snooping PIM-DM, PIM-SM, PIM-SSM PIM Snooping Multicast VLAN IPv6 multicast setting
	QoS	The device supports Diff-Serv QoS, 802.1p/DSCP priority mapping, queue scheduling mechanisms (SP, WRR, SP+WRR), priority marking/remark, packet filtering based on flows, traffic statistics based on flows, redirection based on flows, and rate limiting based on flows.
	ACL	Supports L2～L4 packet filtering functions, ACLs defined based on source MAC address, destination MAC address, source IP address, destination IP address, IP protocol type, TCP/UDP port, TCP/UDP port range, VLAN, etc. Supports ACLs based on time ranges and ACLs applied to ports and VLANs.
	Security	Supports Guest VLAN Supports IEEE 802.1X authentication/centralized MAC address authentication Supports AAA&RADIUS authentication Supports MAC address learning limit Supports MAC address black hole Supports port isolation Supports ARP packet rate limiting Supports IP source address protection Supports ARP intrusion detection Supports DoS attack prevention Supports SAVI source address validity verification Supports broadcast packet suppression Supports primary/backup data backup mechanism Supports SSH 2.0, providing a secure encrypted channel for user login Supports SSL, ensuring secure data transmission Supports IP+port binding, IP+MAC binding, port+MAC binding, and IP+MAC+port binding functions
	System Management	Command line configuration via console/AUX Modem/Telnet/SSH Uploading and downloading of FTP, TFTP, and Xmodem, and SFTP files SNMP V1/V2c/V3 sFlow NQA NTP clock System operating logs
	HPP	Support one-click activation and remote management via Hik-Partner Pro. Functions supported: 1. Display the port rate. 2. Display the port bandwidth utilization rate. 3. Display topology information. 4. Display the alarm status. 5. Restart ports and devices. 6. Remotely upgrade the device.

Approval	EMC	CE-EMC (EN 55032: 2015+A11: 2020, EN IEC 61000-3-2: 2019, EN 61000-3-3: 2013+A1: 2019, EN 50130-4: 2011+A1: 2014, EN 55035: 2017+A11: 2020)
	Safety	CB (AMD1:2009, AMD2:2013, IEC 62368-1: 2014 (Second Edition)
	Chemistry	CE-RoHS (2011/65/EU),WEEE (2012/19/EU),Reach (Regulation (EC) No.1907/2006)

▪ Dimension



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