DS-3T1516-SI-8T8F
16 Port Gigabit Smart Managed Industrial Switch

Smart managed switches are developed by Hikvision, featuring easy management and maintenance. You can easily deploy, monitor and expand your security system anytime and anywhere with our software platforms. You can view the network topology, monitor the health of the network and receive device alarms in real time, which greatly reduces the cost of network operation and maintenance.

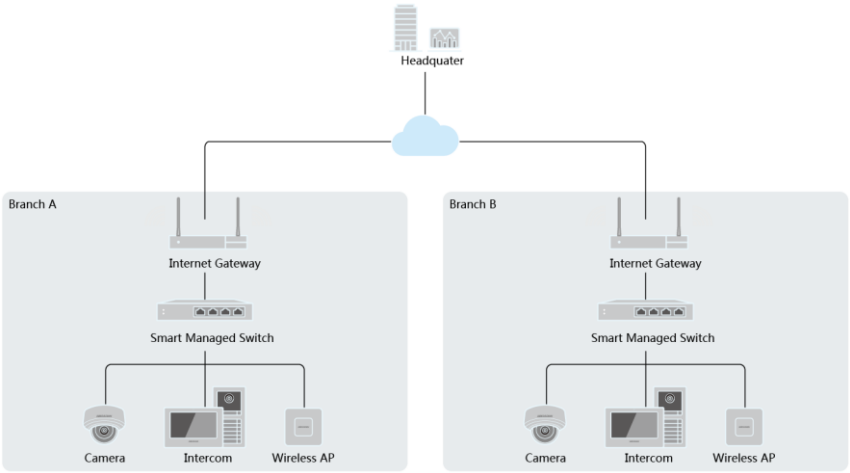
- 8 x Gigabit RJ45 ports,8 x Gigabit SFP fiber optical ports
- Support 802.1Q VLAN
- Support STP/RSTP/ERPS loop prevention, storm control
- Support cable detection to locate failure
- Support SNMP, QoS, DHCP snooping
- 6 kV Surge Protection
- Wider Temperature (-40 °C to 75 °C) Design
- Support IEEE 802.3az Energy Efficient Ethernet (EEE) standard, saving power during periods of low data activity

▪ Specification

General	
Shell	Metal material, fan-free design
Net Weight	0.845 kg (1.86 lb)
Gross Weight	1.112 kg (2.45 lb)
Dimensions (W × H × D)	46.0 mm × 150.0 mm × 130.0 mm (1.81'' × 5.91'' × 5.12'')
Operating Temperature	-40 °C to 75 °C (-40 °F to 167 °F)
Storage Temperature	-40 °C to 85 °C (-40 °F to 185 °F)
Operating Humidity	5% to 95% (no condensation)
Relative Humidity	5% to 95% (no condensation)
Power Supply	9-60 V DC, 2.5 A
Max. Power Consumption	≤ 15 W
Power Consumption in Idle	4 W
Surge Protection	6 kV
Installation Mode	Rail
Network Parameters	
Ports	8 × Gigabit RJ45 port,8 × Gigabit fiber optical port
MAC Address Table	16 K
Switching Capacity	Whole-Device Performance: 68 Gbps Port Performance: 32 Gbps
Packet Forwarding Rate	Whole-Device Performance: 50.59 Mpps Port Performance: 23.81 Mpps
Internal Cache	8.4 Mbits
Software Function	
Port Isolation	Ports 1 to 16: port isolation mode to improve network security Ports in an isolation group cannot communicate with each other, but they can communicate with ports outside the isolation group.
Link Aggregation	Link aggregation is used to aggregate multiple physical ports to form a logical port for load balancing, bandwidth expansion, and port protection. Support static link aggregation. Support 8 aggregation group(s).
QoS	QoS is used to allocate bandwidth to different services so as to provide end-to-end service quality assurance. Support port-based priority configuration. Support SP, WRR priority schedule mode.
Loop Prevention	Loop prevention is used to prevent the switching network from forming loops, which will seriously affect network communication. Disabled by default. Support 802.1D STP. Support 802.1w RSTP.
VLAN	VLAN is used for network scale planning and network health improvement. Support 802.1Q. Configurable VLAN ID from 1-4094. Support Trunk, Access port mode. Support Max. 1024 VLAN.

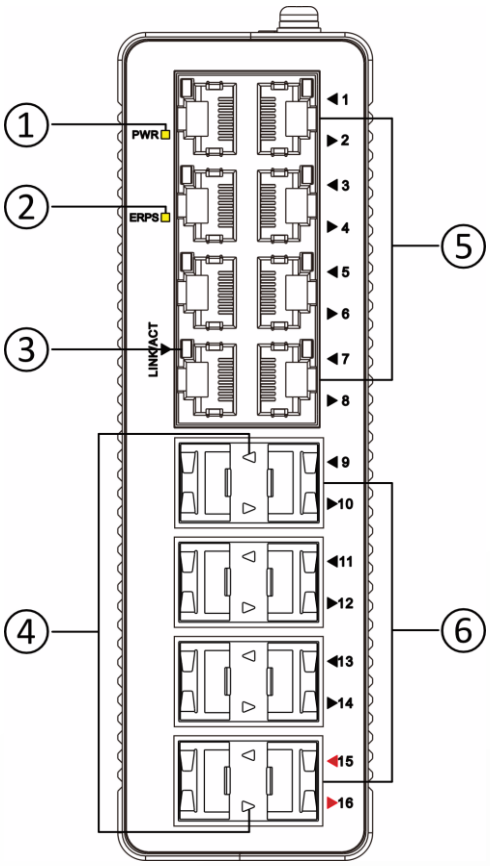
HPP	Support one-click activation and remote management via Hik-Partner Pro. Functions supported: 1. Display the port rate. 2. Display the port bandwidth utilization rate. 3. Display topology information. 4. Display the alarm status. 5. Restart ports and devices. 6. Remotely upgrade the device.
System Maintenance	Support device management via web. Support DHCP Client. Enabled by default for dynamic assignment of management IP addresses. Support Super IP, which is a configurable IP address (default: 10.180.190.200) for direct access. Support management via Hik-Central Pro. Support remote management via Hik-Partner Pro. Support cable detection. Abnormal open circuits and short circuits as well as network cable length can be detected. Support 802.1ab LLDP for peer device discovery. Support SNMP v1/v2c for third-party management platform access. Support port mirroring for fault locating.
Port Rate-Limiting	Port rate-limiting is used for port bandwidth adjustment to prevent network congestion.
Storm Control	Storm control is used to prevent switch ports from being blocked by broadcast or multicast storms in the LAN, which may affect network communication. Support port rate limiting based on broadcast, multicast, and unknown unicast packets.
DHCP Snooping	DHCP Snooping can prevent unauthorized connections to DHCP servers from disrupting the network and affecting normal network communication, and only allow DHCP packets from trusted ports to pass through. Disabled by default.
ACL	Support ACL definitions based on source/destination MAC address, source/destination IP address, IP protocol type. Support ACL application on ports. Support IPv4 ACL and MAC ACL configurations. Support inbound ACLs.
IPSG	IPSG can control the security of port access device. Support port, MAC, IP binding. Support 64 security entries.
DDM (Digital Diagnostic Monitoring)	Support real-time monitoring of key parameters in optical modules, such as operating temperature, operating voltage, operating current, and Rx and Tx optical power.
Approval	
EMC	FCC (47 CFR Part 15, Subpart B); CE-EMC (EN 55032: 2015, EN IEC 61000-3-2: 2019, EN 61000-3-3: 2013+A1: 2019, EN 50130-4: 2011 +A1: 2014, EN 55035: 2017); IC (ICES-003: Issue 6); RCM (AS/NZS CISPR 32: 2015)
Safety	UL (UL 60950-1); CB (IEC 60950-1:2005, AMD1:2009, AMD2:2013, IEC 62368-1: 2014 (Second Edition); CE-LVD (EN 60950-1: 2006 + A11: 2009 +A1: 2010+A12: 2011+A2: 2013, EN 62368-1: 2014+A11: 2017)
Chemistry	CE-RoHS (2011/65/EU); WEEE (2012/19/EU); Reach (Regulation (EC) No.1907/2006)

▪ Typical Application

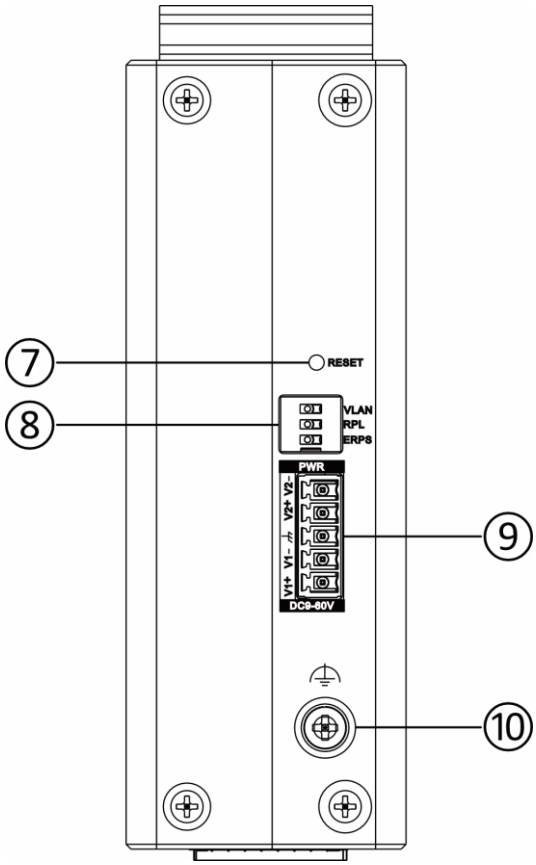


▪ Physical Interface

Front Panel



Rear Panel

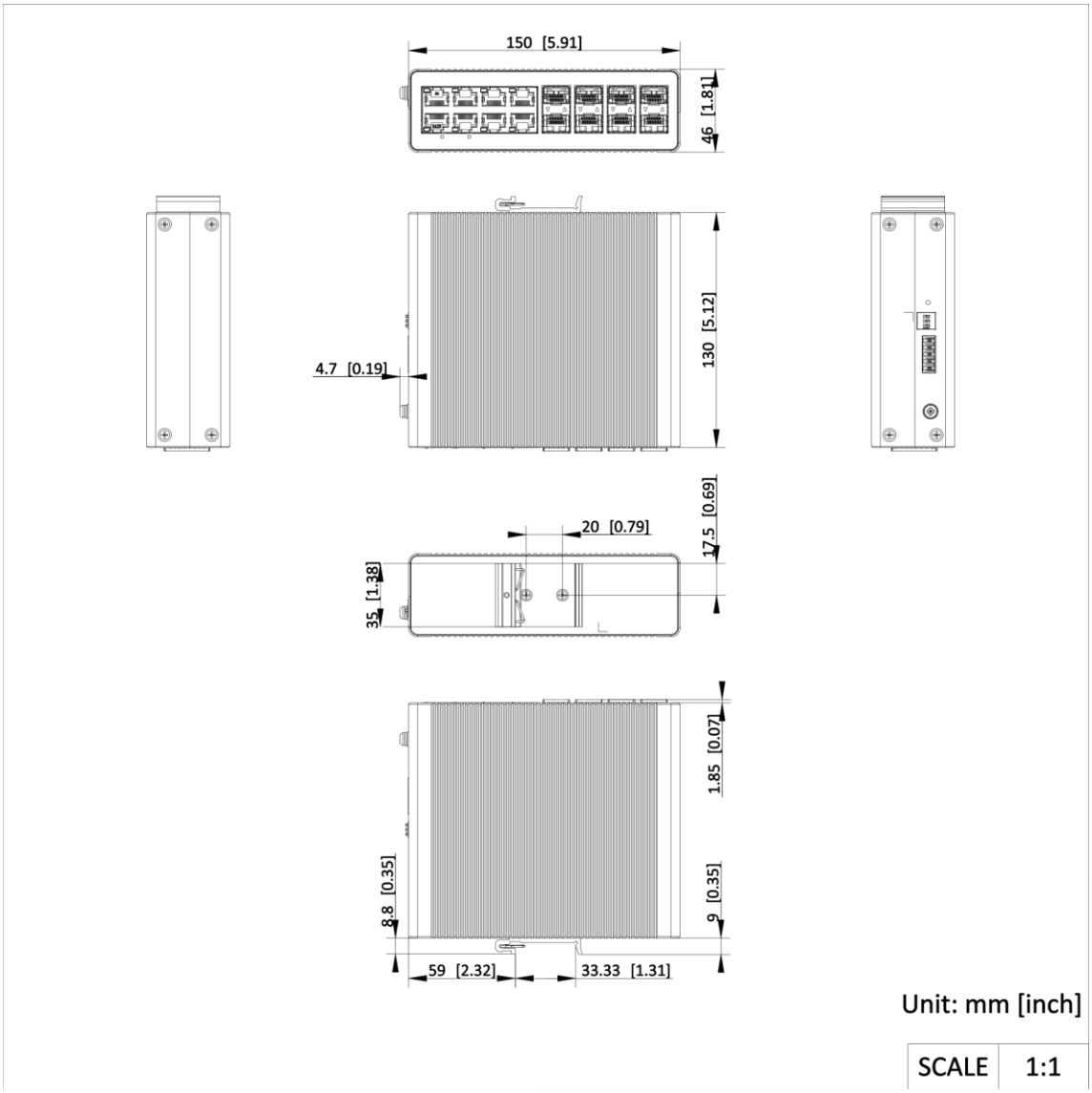


No.	Indicator/Port	Description
①	PWR Indicator	● Solid on: The switch is powered on normally. ● Unlit: No power supply connected or power supply is abnormal.
②	ERPS Indicator	● Solid green: The ring network operates normally without link failures, with all nodes idle and forwarding data correctly. A link disconnection is detected and the current device is not the faulty node. The protection mechanism is triggered, placing some nodes into protection state and opening blocked ports to restore communication. ● Solid red: A link disconnection is detected and the current device is the faulty node. The protection mechanism is triggered, placing some nodes into protection state and opening blocked ports to restore communication. ● Flashing green: The link is unstable (e.g., due to frequent port Up/Down changes or a new node joining). The system is in oscillation detection (pending state), waiting for the topology to stabilize to avoid false switching. ● Flashing red: The device's ERPS function is malfunctioning due to packet sending/receiving problems on the ERPS ring port. ● Unlit: The ERPS function is disabled or the device is faulty.
③	LINK/ACT Indicator	● Solid on: The port is connected. ● Flashing: The port is transmitting data. ● Unlit: The port is disconnected or connection is abnormal.
④	Gigabit SFP Fiber Optical Port Indicator	● Solid on: The gigabit SFP fiber optical port is connected. ● Flashing: The gigabit SFP fiber optical port is transmitting data. ● Unlit: The gigabit SFP fiber optical port is disconnected or connection is abnormal.
⑤	Gigabit RJ45 Port	Used for connection to another device via a network cable.

⑥	Gigabit SFP Fiber Optical Port	Used for connection to another device via an optical fiber when plugged into with an optical module.
⑦	Reset Button	Press and hold the reset button for more than 5 seconds to restore all the configurations of the switch to default settings.
⑧	DIP Switch	● ERPS DIP switch: Used to enable or disable the device's ERPS ring protection function. When a physical loop exists in the network (e.g., multiple switches interconnected in a ring), this function should be enabled to achieve fast protection switching and prevent broadcast storms. - When the ERPS DIP switch is set to the "ON" position, the ERPS function is enabled. - When the ERPS DIP switch is set to the "OFF" position, the ERPS function is disabled. By default, the ERPS DIP switch is set to "OFF", meaning the ERPS function is not enabled. ● RPL DIP switch: Used to configure whether the device acts as the RPL Owner in the ERPS ring network. The RPL Owner serves as the primary node in the ring, responsible for actively blocking redundant links to logically break the loop and prevent broadcast storms. - When the RPL DIP switch is set to the "ON" position, the device is automatically configured as the RPL Owner. If a physical loop exists in the ring network, this node will automatically block its RPL port. - When the RPL DIP switch is set to the "OFF" position, the device does not act as the RPL Owner and will not participate in ring protection as the primary node. By default, the RPL DIP switch is set to "OFF", meaning the device does not assume the role of RPL Owner. ● VLAN DIP switch: Used to enable or disable layer-2 isolation between downstream ports. - When the VLAN DIP switch is set to the "ON" position, the port isolation function is enabled. Downstream ports cannot communicate with each other, but communication with the upstream port remains normal. This mode enhances network security by preventing unnecessary data exchange between devices at the same level. - When the VLAN DIP switch is set to the "OFF" position, the port isolation function is disabled. All ports—including downstream ports—can communicate normally with each other. By default, the VLAN DIP switch is set to "OFF", meaning all ports can communicate freely.
⑨	Power Supply	For basic operation, a single properly grounded power supply (V+/V–) is sufficient. For full redundancy—enabling load balancing or primary/backup switching—connect two power supplies with grounding. To power on the switch: 1. Remove the green power terminal from the device. 2. Connect the power wires: positive (DC+) to V+ and negative (DC-) to V-. Tighten the screws to secure the connections. 3. Re-insert the terminal into the device's power port. 4. Connect the opposite ends of the wires to the external power supply. 5. Ground the terminal using a grounding cable with a cross-sectional area of at least 1.5 mm^2 and a resistance of less than 1 Ω. 6. Verify that the PWR indicator is solid on, confirming a successful power connection. Note: The device is compatible only with a 9 V to 60 V power supply.

⑩	Grounding Terminal	Used for connection to a grounding cable to protect the switch from lightning.

▪Dimension



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