

**DS-3E1520HP-SI-16P2T2F**  
**16 Port Gigabit Smart PoE 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.

- 16 x 10/100/1000 PoE Ports, 2 x 10/100/1000 Mbps RJ45, 2 x 10/100/1000 Mbps SFP
- Total PoE Power Budget 230 W
- Support 802.1Q VLAN
- Support 802.3bt Hi-PoE, Max. 90 W for one port
- Support STP/RSTP loop prevention, storm control
- Support cable detection to locate failure
- Support SNMP, QoS, DHCP snooping
- 6 kV Surge Protection

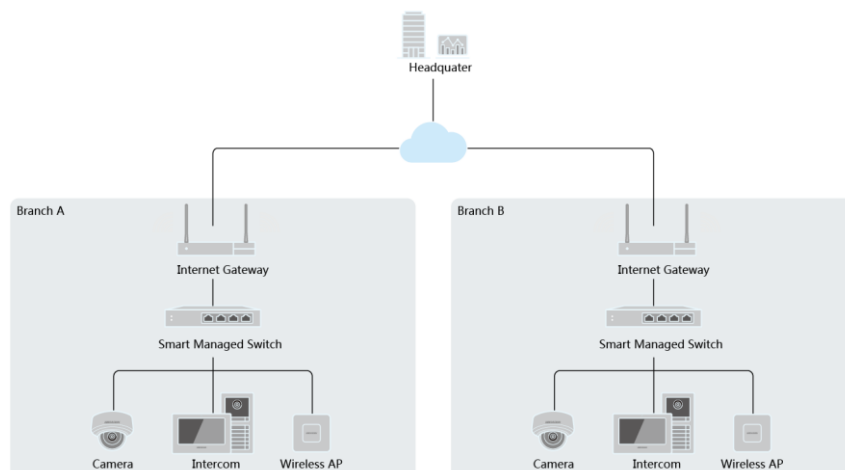
## ▪ Specification

General	
Shell	Metal material
Net Weight	2.735 kg (6.03 lb)
Gross Weight	3.31 kg (7.30 lb)
Dimensions (W × H × D)	440 mm × 44 mm × 220.8 mm (17.32" × 1.73" × 8.69")
Operating Temperature	0 °C to 45 °C (0 °F to 113 °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	100-240 V 50/60 Hz 4 A
Installation Mode	Desk-Mounted,Rack (equipped with mounting ears)
Max. Power Consumption	250 W
Power Consumption in Idle	20 W
Surge Protection	6 kV
Network Parameters	
Ports	16 × Gigabit PoE port,2 × Gigabit RJ45 port,2 × Gigabit fiber optical port
MAC Address Table	8 K
Switching Capacity	Whole-Device Performance: 56 Gbps Port Performance: 40 Gbps
Packet Forwarding Rate	Whole-Device Performance: 29.76 Mpps Port Performance: 41.66 Mpps
Internal Cache	4.1 Mbits
Software Function	
Long Range	Ports 1 to 16: up to 300 m. Long range performance may vary depend on camera model or cable condition.
Port Isolation	Ports 1 to 20: 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.
PoE Watchdog	Ports 1 to 16: auto detect and restart the cameras that do not respond.
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 groups.
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.
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.

VLAN	<p>VLAN is used for network scale planning and network health improvement.</p> <p>Support 802.1Q.</p> <p>Configurable VLAN ID from 1-4094.</p> <p>Support Trunk, Access port mode.</p> <p>Support Max. 4094 VLAN.</p>
HPP	<p>Support one-click activation and remote management via Hik-Partner Pro. Functions supported:</p> <ol style="list-style-type: none"> <li>1. Display the port rate.</li> <li>2. Display the port bandwidth utilization rate.</li> <li>3. Display the PoE power usage.</li> <li>4. Display topology information.</li> <li>5. Display the alarm status.</li> <li>6. Restart ports and devices.</li> <li>7. Enable port long-range mode.</li> <li>8. Remotely upgrade the device.</li> </ol>
System Maintenance	<p>Support device management via web.</p> <p>Support DHCP Client. Enabled by default for dynamic assignment of management IP addresses.</p> <p>Support Super IP, which is a fixed IP address (10.180.190.200) for direct access.</p> <p>Support management via Hik-Central Pro.</p> <p>Support remote management via Hik-Partner Pro.</p> <p>Support cable detection. Abnormal open circuits and short circuits as well as network cable length can be detected.</p> <p>Support 802.1ab LLDP for peer device discovery.</p> <p>Support SNMP v1/v2c for third-party management platform access.</p> <p>Support port mirroring for fault locating.</p>
Port Rate-Limiting	<p>Port rate-limiting is used for port bandwidth adjustment to prevent network congestion.</p>
Storm Control	<p>Storm control is used to prevent switch ports from being blocked by broadcast or multicast storms in the LAN, which may affect network communication.</p> <p>Support port rate limiting based on broadcast, multicast, and unknown unicast packets.</p>
DHCP Snooping	<p>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.</p>
ACL	<p>Support ACL definitions based on source/destination MAC address, source/destination IP address, IP protocol type.</p> <p>Support ACL application on ports.</p> <p>Support IPv4 ACL and MAC ACL configurations.</p> <p>Support inbound ACLs.</p>
IPSG	<p>IPSG can control the security of port access device.</p> <p>Support port, MAC, IP binding.</p> <p>Support 256 security entries.</p>
<b>PoE Power Supply</b>	
PoE Standard	<p>Ports 1 to 4: IEEE 802.3af, IEEE 802.3at, IEEE 802.3bt</p> <p>Ports 5 to 16: IEEE 802.3af, IEEE 802.3at</p>

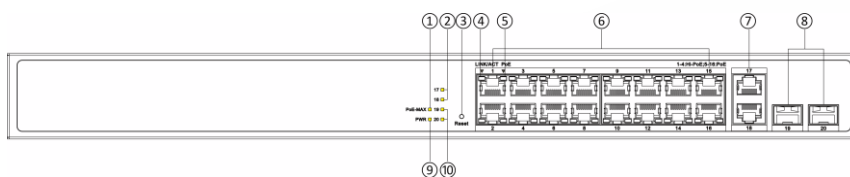
PoE Power Pin	Ports 1 to 4: 8-pin power: 1/2(-), 3/6(+), 4/5(+), 7/8(-) Ports 5 to 16: End-span: 1/2(-), 3/6(+)
PoE Port	Hi-PoE: Ports 1 to 4 PoE: Ports 5 to 16
Max. Port Power	Ports 1 to 4: 90 W Ports 5 to 16: 30 W
PoE Power Budget	230 W
<b>Approval</b>	
EMC	CE-EMC (EN 55032: 2015+A11: 2020, EN IEC 61000-3-2: 2019, EN 61000-3-3: 2013+A1: 2019, EN 50130-4: 2011+A1: 2014, EN 55035: 2017+A11: 2020), IC (ICES-003: Issue 7:2020), RCM (AS/NZS CISPR 32: 2015)
Safety	CB (AMD1:2009, AMD2:2013, IEC 62368-1: 2014 (Second Edition)), CE-LVD (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



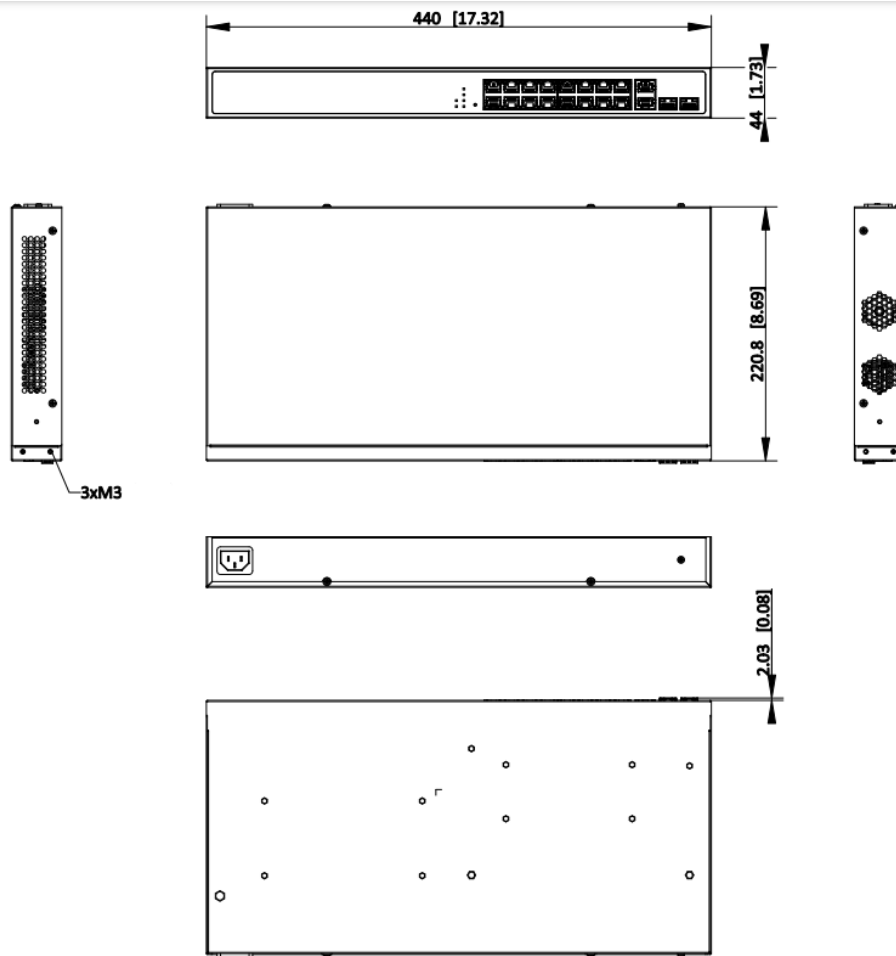
Rear Panel



No.	Indicator/ Port	Description
①	PoE-MAX Indicator	<ul style="list-style-type: none"> <li>● Solid on/Flashing: The output power of the switch is about to reach or has reached the upper limit. The power supply may be abnormal if more devices are connected.</li> <li>● Unlit: The switch does not supply power to a powered device (PD), or supplies power to a PD normally and its output power does not reach the upper limit. Note: The PoE-MAX indicator will be unlit in 5 seconds after the output power of the switch returns to normal.</li> </ul>

②	Gigabit RJ45 Port Indicator	<ul style="list-style-type: none"> <li>● Solid on: The gigabit RJ45 port is connected.</li> <li>● Flashing: The gigabit RJ45 port is transmitting data.</li> <li>● Unlit: The gigabit RJ45 port is disconnected or connection is abnormal.</li> </ul>
③	Reset Button	Press and hold the reset button for about 5 seconds to restore all the configurations of the switch to default settings.
④	LINK/ACT Indicator	<ul style="list-style-type: none"> <li>● Solid on: The port is connected.</li> <li>● Flashing: The port is transmitting data.</li> <li>● Unlit: The port is disconnected or connection is abnormal.</li> </ul>
⑤	PoE Indicator	<ul style="list-style-type: none"> <li>● Solid on: The switch provides power supply to a PD normally.</li> <li>● Unlit: The switch is disconnected to a PD, or provides power supply to a PD abnormally.</li> </ul>
⑥	Gigabit PoE RJ45 Port	Used for connection to a PD via a network cable. Note: Ports 1 to 4 of 1520HP series switches are Hi-PoE RJ45 ports, which can be connected to high- power devices.
⑦	Gigabit RJ45 Port	Used for connection to another device via a network cable.
⑧	Gigabit SFP Fiber Optical Port	Used for connection to another device via an optical fiber when plugged into with an optical module.
⑨	PWR Indicator	<ul style="list-style-type: none"> <li>● Solid on: The switch is powered on normally.</li> <li>● Unlit: No power supply is connected or power supply is abnormal.</li> </ul>
⑩	Gigabit SFP Fiber Optical Port Indicator	<ul style="list-style-type: none"> <li>● Solid on: The gigabit SFP fiber optical port is connected.</li> <li>● Flashing: The gigabit SFP fiber optical port is transmitting data.</li> <li>● Unlit: The gigabit SFP fiber optical port is disconnected or connection is abnormal.</li> </ul>
⑪	Grounding Terminal	Used for connecting to the grounding cable to protect the switch from lightning.
⑫	Power Supply	Use the attached power cord to connect the switch to a socket.

Dimension



Unit: mm [inch]

SCALE	1:1
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# See Far, Go Further



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