H51 series

Outdoor L2 PoE Switches

- Ethernet Surge Protection
- AC Power Surge Protection
- IP67
- IK10
- -40~65°C
- 30/90W PoE
- Fiber-Optical
- 802.1Q VLAN
- RING
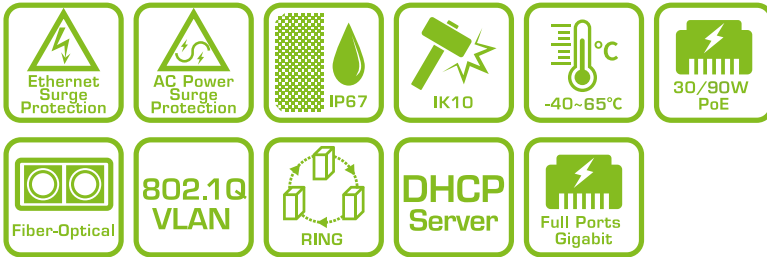- DHCP Server
- Full Ports Gigabit

The H51 series of L2 PoE Switches are designed with IP67, 12KV Ethernet port surge protection, 40KV surge protection in power supply , and harden-graded standard to operate between -40° C and 65° C for harsh weather conditions.
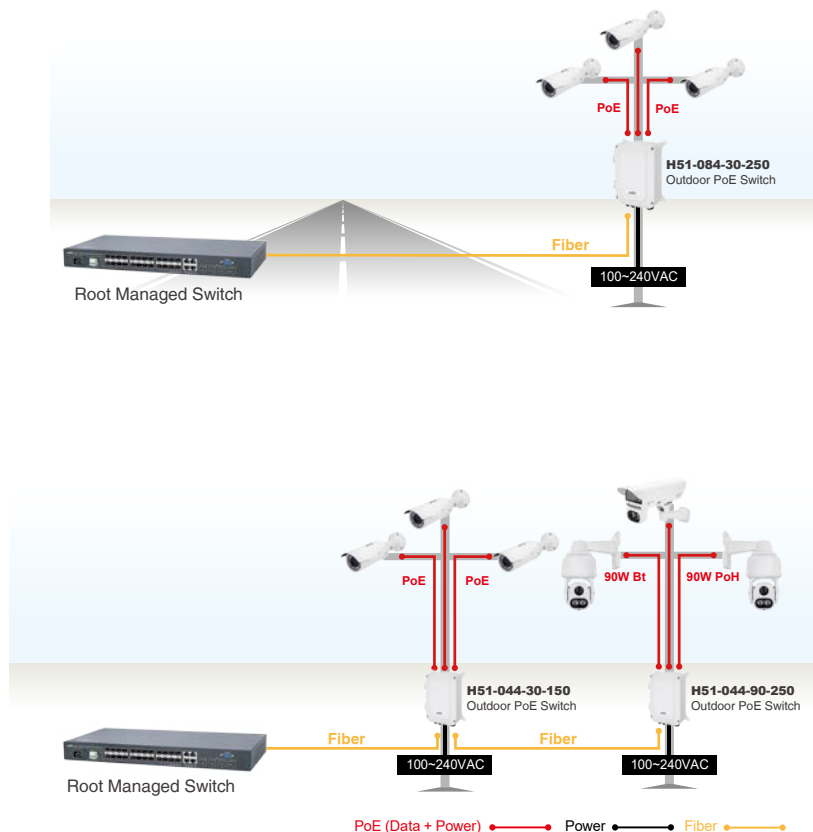
They enable outdoor connections of PoE PDs to the network such as outdoor IP cameras, wireless APs, and other outdoor industrial applications.

The H51 series providesmulti-port Gigabit PoE (10M/100M/1G) delivering data and power to PoE PDs over a single network cable and additional SFP transceiver slots for flexible uplink. The H51 series has three sub models classified as power source equipment (PSE) and provide PoE budget up to 30W or 90W per port.

Features

- Layer 2 Switch
    - 802.1d (STP), 802.1w (RSTP), 802.1s (MSTP)
    - Loop protection
    - SNMP v1/v2c
    - QoS
    - VLAN
    - Ethernet cable length measurement
    - DHCP Server
- Flexible SFP transceiver ports for uplink
- IP67 standard
- IK10 impact rated cast aluminum housing
- Operating temperature between -40°C and 65°C
- Compliant IEEE802.3at 30W per port (H51-044-30-150, H51-084-30-250)
- Configures proper 90W mode each port via GUI to fit respective bt, PoH PoE PD (H51-044-90-250)
- Supports 10/100/1000Mbps data rates
- 12KV PoE surge protection
- IEEE 802.3az Energy Efficient Ethernet standard for green power

Applications

PoE PoE
H51-084-30-250 Outdoor PoE Switch
Fiber
100~240VAC
Root Managed Switch

PoE PoE 90W Bt 90W PoH
H51-044-30-150 Outdoor PoE Switch
H51-044-90-250 Outdoor PoE Switch
Fiber Fiber
100~240VAC 100~240VAC
Root Managed Switch

PoE (Data + Power) Power Fiber

Technical Specifications - Software

PoE Management

Port Configuration	Supports per port PoE configuration function
PoE Scheduling	Supports per port PoE scheduling to turn on/off the PoE devices (PDs).
Auto-checking	Check the link status of PDs. Reboot PDs if there is no responses
Power Delay	The switch provides power to the PDs based on delay time when PoE switch boots up, in order to protect switch from misuse of the PDs.

Layer 2 Switching Specifications

Spanning Tree Protocol	MAC Bridges Standard Spanning Tree (STP) 802.1d, Rapid Spanning Tree (RSTP) 802.1w, Multiple Spanning Tree (MSTP) 802.1s
IP/Mac Port Trunking	Link Aggregation Control Protocol (LACP) IEEE 802.3ad , Static aggregation.
VLAN	Supports up to 4K VLANs simultaneously (out of 4096 VLAN IDs), Port-based VLAN, 802.1Q tag-based VLAN
IGMP v1/v2 Snooping	IGMP limits bandwidth-intensive multicast traffic to only the requesters.

Layer 3 Switching Specifications

DHCP Server	Assign IP to DHCP clients

Security

Port Security	Locks MAC addresses to ports, and limits the number of learned MAC address
Storm Control	Prevents traffic on a LAN from being disrupted by a broadcast, multicast, or unicast storm on a port
Loop Protection	To prevent unknown unicast, broadcast and multicast loops in Layer 2 switching configurations.

QoS

Classification	Port based, 802.1p VLAN priority based
Bandwidth Control	Ingress policer, Egress shaping and rate control, Per port

Management software

Port Mirroring	Traffic on a port can be mirrored to another port for analysis with a network analyzer or RMON probe. Up to N-1 (N is Switch's Ports) ports can be mirrored to single destination port. A single session is supported.
IEEE 802.1ab (LLDP)	Used by network devices for advertising their identities, capabilities, and neighbors on an IEEE 802ab local area network, Support LLDP-MED extensions
Web GUI Interface	Built-in switch configuration utility for browser-based device configuration
SNMP	SNMP version1, 2c
Flow Control	The IEEE 802.3x standard for monitoring high speed switched networks. It gives complete visibility into the use of networks enabling performance optimization, accounting/billing for usage, and defense against security threats
Firmware Upgrade	Web browser upgrade HTTP and TFTP
NTP	Network Time Protocol (NTP) is a networking protocol for clock synchronization between computer systems over packet-switched
Other Management	System, HTTP, DHCP Client, Cable Diagnostics, Syslog, IPV4 Management, SSH, Telnet

Specifications

	H51-044-30-150	H51-044-90-250	H51-084-30-250
Networking Specifications			
Total Gigabit Ports	8	8	12
Gigabit PoE Ports (10M/100M/1G)	4 x 30W PoE	4 x 90W bt / PoH	8 x 30W PoE
SFP Slots (100M/1G)	2	2	4
Gigabit Ports (RJ45)	2	2	-
Forwarding Capacity	11.904Mpps	11.904Mpps	17.856Mpps
Mac Table	8 k	8 k	8k
Jumbo Frames	9,216 Bytes	9,216 Bytes	9,216 Bytes
Switching Capacity	16 Gbps	16 Gbps	24 Gbps
Power Specifications			
Input Voltage	100VAC ~ 240VAC 280VAC 4hr 300VAC 1min.	100VAC ~ 240VAC 280VAC 4hr 300VAC 1min.	100VAC ~ 240VAC 280VAC 4hr 300VAC 1min.
Power Consumption	150W	250W	250W
Backup Power Input Voltage	48VDC ~ 56VDC	48VDC ~ 56VDC	48VDC ~ 56VDC
Output Voltage Range /per PoE Port	54 VDC PoE IEEE 802.3af (Max. 15.4W) output PoE+ IEEE802.3at (Max. 30W) output	54 VDC PoE IEEE 802.3af (Max. 15.4W) output PoE+ IEEE802.3at (Max. 30W) output bt / PoH PoE (Max. 90W) output	54 VDC PoE IEEE 802.3af (Max. 15.4W) output PoE+ IEEE802.3at (Max. 30W) output
PoE Power Budget	140W	240W	240W
Surge Protection /each PoE Port	12KV	12KV	12kV
Surge Protection for AC Power	40KV	40KV	40KV
Mechanical Specifications			
Dimensions (L x W x H)	245.8 x 315.4 x 118mm	245.8 x 315.4 x 118mm	245.8 x 315.4 x 118mm
Weight	4.2KG	4.3KG	4.37KG
Connectors	M16 x 4, M25 x 2	M16 x 4, M25 x 2	M16 x 4, M25 x 2
DI/DO	1/1	1/1	1/1
Console	RJ45	RJ45	RJ45
Reset Button	Yes	Yes	Yes
Environmental Specifications			
Weather Rating	IP67	IP67	IP67
Vandal Proof	IK10	IK10	IK10
Operating Temperature	-40°C~ 65°C (-40°F~ 149°F)	-40°C~ 65°C (-40°F~ 149°F)	-40°C~ 65°C (-40°F~ 149°F)
Storage Temperature	-40° C~ 85° C (-40° F~ 185° F)	-40° C~ 85° C (-40° F~ 185° F)	-40° C~ 85° C (-40° F~ 185° F)
Operating Humidity	5% ~ 95% non-condensing	5% ~ 95% non-condensing	5% ~ 95% non-condensing
Certifications			
EMC	CE,FCC,VCCI,C-Tick Class A	CE,FCC,VCCI,C-Tick Class A	CE,FCC,VCCI,C-Tick Class A
Safety	EN62368-1	EN62368-1	EN62368-1
Surge	EN61000-4-5	EN61000-4-5	EN61000-4-5

Ordering Information

PoE Switches

H51-044-30-150
- 4xGbE PoE (30W) + 2xGbE SFP + 2xGbE RJ45
- 100~240VAC,150W power budget

H51-044-90-250
- 4xGbE bt / PoH PoE (90W)+2xGbE SFP + 2xGbE RJ45
- 100~240VAC, 250W power budget

H51-084-30-250
- 8xGbE PoE (30W) + 4xGbE SFP
- 100~240VAC, 250W power budget

Optional Accessories

SFP Modules

SFP-ISX-X5
Industrial Gigabit SFP Transceiver
- MMF
- 0.5 km
- -40° C ~85° C

SFP-ISX-02
Industrial Gigabit SFP Transceiver
- MMF
- 2 km
- -40° C ~85° C

SFP-ILX-10
Industrial Gigabit SFP Transceiver
- SMF
- 10 km
- -40° C ~85° C

SFP-ILX-40
Industrial Gigabit SFP Transceiver
- SMF
- 40 km
- -40° C ~85° C

Pole Mount Brackets

AT-100
Pole Mount Adapter

AT-101
Pole Mount Adapter

Corner Mount Bracket

AT-200
Corner Mount Adapter