



Network Topology

Server



The H60 series of IP67/IK10 L2 PRO Managed PoE Switches are designed with 6KV 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.

Che king

The H60 series provides multi-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 H60 series has three sub models classified as power source equipment (PSE) and provide PoE budget up to 30W or 90W per port.

Besides general functions of L2 plus & basic L3 switch such as QoS, security, spanning tree, cable length measurement, and SNMP v1/v2c/v3, a dedicated web graphic user interface of IP surveillance is easy to configure and manage ONVIF cameras. It automatically generates camera topology maps, cable diagnostic, and PoE management.

### **Features**

Fiber-Ontica

- · Layer 2 Switch
  - 802.1d (STP), 802.1w (RSTP), 802.1s (MSTP)

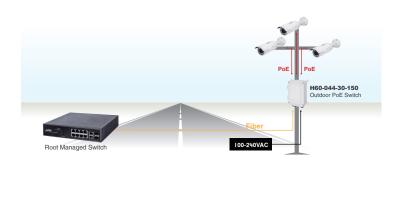
RING

- Loop protection
- SNMP v1/v2c/v3

VLAN

- QoS
- VLAN
- Ethernet cable length measurement
- DHCP Server
- Network Topology System
  - · Automatic discovery for ONVIF camera
  - · Generates camera topology map automatically
  - Cable diagnostic & reboot camera remotely
  - PoE management
  - Topology view / Floor view / Google map
  - · Monitor / Configure / Manage ONVIF camera thru web
- 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 (H60-044-30-150, H60-084-30-250)
- 90W bt PoE per port (H60-044-91-250)
- Supports 10/100/1000Mbps data rates
- 6KV PoE surge protection
- IEEE 802.3az Energy Efficient Ethernet standard for green power

### Applications





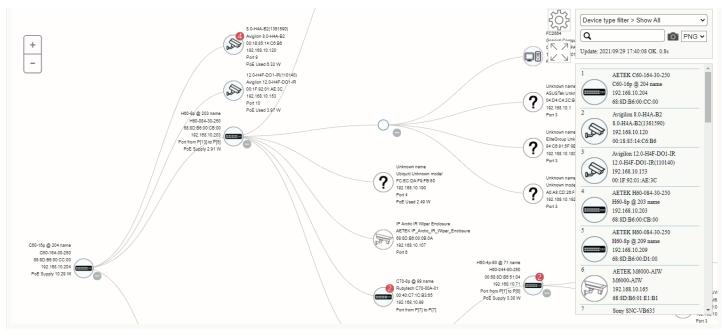
PoE (Data + Power)

### **Device List**

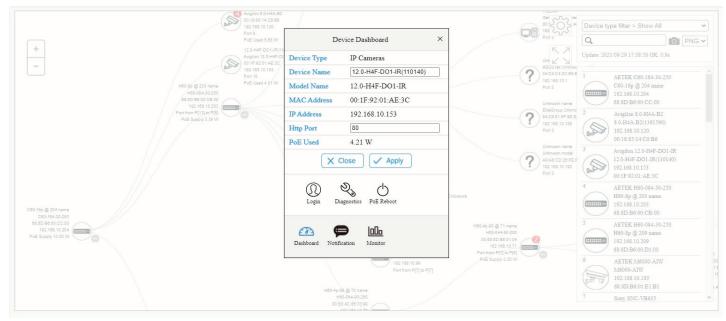
how 10 v entries					Search:
Status 🔶	Device Type	Model Name 🔶	Device Name	MAC	JP Address
Online	PoESW	H60-084-30-250	H60-8p @ 203 name	68:8D:B6:00:CB:00	192.168.10.203
Online	PoESW	H60-084-30-250	H60-8p @ 209 name	68:8D:B6:00:D1:00	192.168.10.209
Online	IPMX	M6000-AIW	M6000-AIW	68:8D:B6:01:E1:B1	192.168.10.165
Online	IP Camera	SNC-VB635	Sony	D8:D4:3C:DD:F5:C7	192.168.10.122
Online	IP Camera	WV-S1131	Panasonic_WV-S1131	BC:C3:42:71:79:D0	192.168.10.104
Online	IPSG	SD-504	SD-504	68:8D:B6:00:00:01	192.168.10.108
Online	PC	General Computer	FC2564	00:50:56:2D:FA:AC	192.168.10.201
Online	Others	Unknown model	Unknown name	04:D4:C4:2C:B5:EC	192.168.10.1
Online	Others	Unknown model	Unknown name	94:C6:91:5F:9E:EA	192.168.10.180
Online	PC	General Computer	MIS-TEMP-NB4	A0:A8:CD:26:FE:FD	192.168.10.192
howing 1 to 10 of 29 entries				р	revious 1 2 3 Next

Edit

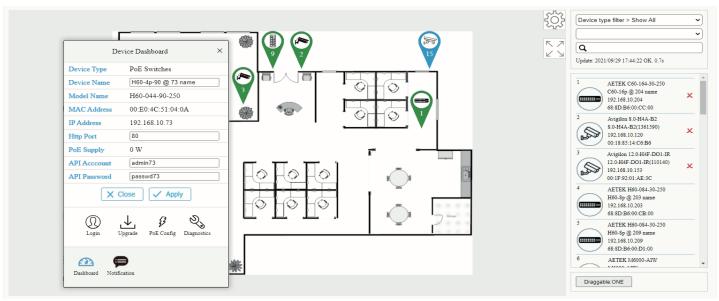
### **Topology View**



### **Device Dashboard**



### **Floor Map View**



### **Google Map View**

Search Box	Division Ave	Device type filter > Show All
	Device Dashboard ×	Q Update: 2021/09/29 17:48:45 OK. 1.4s
	Device Type PoE Switches	<b>^</b>
₩a//a60. HITN Television ♥	Device Name H60-8p @ 203 name	1 AETEK C60-164-30-250 C60-16p @ 204 name
8 8 Martali st ■ Martali St S	Model Name H60-084-30-250 Grill On L	192.168.10.204 68:8D:B6:00:CC:00
	MAC Address 68:8D:B6:00:CB:00 )	2 Avigilon 8.0-H4A-B2
St The state of th	IP Address 192.168.10.203	8.0-H4A-B2(1361590) 192.168.10.120
Vater St-Vinegar Hill House 🔂 Duggal Greenhouse 🖬 Basin	Http Port 80 edford Gardens	00:18:85:14:C6:B6
Brooklyn Nav	PoE Supply 2.54 W	3 Avigilon 12.0-H4F-DO1-IR
a 307 Daniel S Navy Yard Ferry offices	APIAcccount admin203	12.0-H4F-DO1-IR(110140) × 192.168.10.153 ×
York St	API Password passwd203	00:1F:92:01:AE:3C
Brooklyn Tow Pound Facility	X Close Apply	4 AETEK H60-084-30-250 H60-8p @ 203 name 192.168.10.203 6:8D-B6:00:CB:00
Kings County Distillery Pery Ave Att Anthe State Market St Ity Park Brooklyn Navy Yard Parket State Parket St	Upgrade PoE Config Havel 6 Pointe Plaza	5 AETEK H60-084-30-250 H60-Sp @ 209 name 192.168.10.209 68:8D:B6:00:D1:00
地圖 衛星檢視 conda skate Harks #版公開 Plushing Ave 正 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一	Dashboard Notification	6 AETEK M6000-AIW M6000-AIW 192.168.10.165 ×
Commodore PP Advertised States		Draggable:ONE Animation:OFF

### **Cable Diagnostics**



# **PoE Features**

- IEEE802.3at (PoE+ 30W),bt 90W
- Max. allowed 30W / 90W per port
- Port status table

PoE Port Configuration					
Local Port	PD Class	Power Used	Current Used	Priority	Port Status
1	-	0.00 [W]	0 [mA]	high	No PD detected
2	-	0.00 [W]	0 [mA]	high	No PD detected
3	-	0.00 [W]	0 [mA]	high	No PD detected
4	class0	2.65 [W]	50 [mA]	high	on
5	-	0.00 [W]	0 [mA]	high	No PD detected
6	-	0.00 [W]	0 [mA]	high	No PD detected
7	-	0.00 [W]	0 [mA]	high	No PD detected
8	-	0.00 [W]	0 [mA]	high	No PD detected
Total		2.00 [W]			
Apply Refresh					

# **Specifications - Software**

DoE Monorement	
PoE Management Port Configuration	Supports par part PaE configuration function
0	Supports per port PoE configuration function Supports per port PoE configuration function
PoE Scheduling	Supports per port PoE scheduling to turn on/off the PoE devices (PDs). Check the link status of PDs. Reboot PDs if there is no responses
Auto-checking	
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.
Automatic Discovery	cal User Interface Specifications Discover IP cameras complying ONVIF automatically
Topology View	Generate Topology maps to manage IP cameras
Floor view	It's easy to drag and drop PoE devices and help you to build smart workforces
Map view	Enhance efficiency to drag and drop devices and monitor surroundings on google map
•	Comprehensive chart to show traffic status
Traffic Monitoring	
PoE Management	Reboot IP camera, Scheduling PoE on/off, alive checking, Power delay as PoE switch boots up, PoE configuration
Layer 2 Switching Spe	cifications
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 Spe	cifications
DHCP Server	Assign IP to DHCP clients
Security	
IEEE 802.1X	IEEE802.1X: RADIUS authentication, authorization and accounting, MD5 hash, guest VLAN, single/multiple host mode and single/ multiple sessions, Supports IGMP-RADIUS based 802.1X, Dynamic VLAN assignment
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.
RADIUS/ TACACS+	Supports RADIUS and TACACS+ authentication. Switch as a client
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	Used by network devices for advertising their identities, capabilities, and neighbors on an IEEE 802ab local area network, Support
(LLDP)	LLDP-MED extensions
Web GUI Interface	Built-in switch configuration utility for browser-based device configuration
SNMP	SNMP version1, 2c, 3
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/IPV6 Management, SSH, Telnet

## **Specifications**

	H60-044-30-150	H60-044-91-250	H60-084-30-250
Networking Specifications			
Total Gigabit Ports	8	8	12
Gigabit PoE Ports (10M/100M/1G)	4 x 30W PoE	4 x 90W bt	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 PoE (Max. 90W) output	54 VDC PoE IEEE 802.3af (Max. 15.4W) output PoE+ IEEE802.3at (Max. 30W) output
PoE Power Budget	120W	240W	240W
Surge Protection /each PoE Port	6KV	6KV	6KV
Surge Protection for AC Power	40KV	40KV	40KV
Mechanical Specifications			
Dimensions (L x W x H)	315.4 x 245.8 x 118mm	315.4 x 245.8 x 118mm	315.4 x 245.8 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
			ENG2000 d
Safety	EN62368-1	EN62368-1	EN62368-1

## **Ordering Information**



### H60-044-30-150

4xGbE PoE (30W) +
 2xGbE SFP +
 2xGbE RJ45
 100~240VAC,120W power budget



#### H60-044-91-250

PoE Switches

 4xGbE bt PoE (90W)+2xGbE SFP + 2xGbE RJ45
 100~240VAC, 240W

power budget



### H60-084-30-250

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

## **Optional Accessories**

	SFP I	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 Transceive • SMF • 40 km • -40°C ~85°C
Pole Mot	Int Brackets	Corner Mount Bracket	Fiber Splice Tray
AT-100 Pole Mount Adapter	AT-101 Pole Mount Adapter	AT-200 Corner Mount Adapter	AT-303 / AT-303-V2 Fiber Splice Tray