

## AW-IHB-1040

## Industrial Lite Management PoE Switch User Manual



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Revision History:

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V1.0	2024.01.09	New first edition



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## 1. Log In

## 1.1. Log into web interface

The switch can be managed by entering the IP address of the device in the browsers (installed on your computer). The URL format in the address bar is:

Note: The default factory IP address, username and password are as below.

IP Address	DHCP Client
Username	admin
Password	admin

As the default network setting is DHCP client, so If you do not have DHCP server to provide ip address to the switch, You can find the switches by using VIVOTEK' s Shepherd utility.

1 selec	ted 🧿					?
	ı IP range					
٩		A	+ 12	All devices	Camera	NVR
Status	Model	IP	Host name	MAC	Firmware	нтті
<mark>€</mark> ≁	AW-IHB-1040	169.254.132.10		8C-79-21-04-84-0A	V0001	80
	FD9389-EHV-v2	169.254.11.52		00-02-D1-A3-E4-9E	1.2102.33.0	80
	IB9389-EH-v2	169.254.8.51		00-02-D1-98-90-4E	1.2102.33.0	80
	VSS	10.135.5.182		64-D6-9A-B7-A2-14	1.1.0.1000	345



The login window for user as following:



Picture 1-1Enter user name and password

Default Username and password are admin/ admin, Enter and clik "OK", open the management interface

### 1.2. Web-based user interface

The user interface provides access to different configuration and management windows, allowing users to view performance statistics and monitor system status. The user interface is divided into three distinct areas as in following picture

<b>VIVOTEK</b> 1 AW-IHB-1040	2 System Information	7 8 9 10 3		
> System > VI ΔN	Model Name	AW-IHB-1040		
> MAC Address				
> PoE Management	MAC Address	00:02:D1:A5:E8:7E		
> Port Management > STP	IP Address	169.254.132.10		
<ul> <li>&gt; Link Aggregation</li> <li>&gt; DO &amp; Temperature</li> <li>&gt; Maintenance</li> </ul>	Subnet Mask	255.255.0.0		
	Gateway	0.0.0.0		
	Firmware Version	V0001		
	Firmware Date	Jan 04 2024 10:06:50		
	Hardware Version	1.0		

Area	Function
Area 1	VIVOTEK LOGO: When you click VIVOTEK logo, it will bring a browser to VIVOTEK website.
Area 2	Port status: It will show the port status. When the port shows green, it means link up with 1000 mbps speed. When the port shows in amber, it means link up with 10/100 mbps speed.
Area 3	According to the user selection (area 3), it shows the switch information
Area 4	The disk icon will become bule after you change the settings. Please make sure to click 💾 to save configuration after you change the settings otherwise the settings that you change will be gone after switch rebooting.

## 2.System

## 2.1. Information

Users can view the basic information of the switch, such as the managed IP address, Mac address, firmware version.

```
Click "system" > "information" , shown as following:
```

-System Information——	
Model Name	AW-IHB-1040
MAC Address	00:02:D1:A5:E8:7E
IP Address	169.254.132.10
Subnet Mask	255.255.0.0
Gateway	0.0.0.0
Firmware Version	V0001
Firmware Date	Jan 04 2024 10:06:50
Hardware Version	1.0

#### 2.2. IP Setting

Note: The factory default IP address of the switch is DHCP Client

Click "system" > " IP Setting", Shown as following:

DHCP Client Enable	
IP Address	169.254.173.8
Subnet Mask	255.255.0.0
Gateway	0.0.0

#### Picture 2-2 IP Setting

#### The description of IP Setting:

Parameters	Description
DHCP	<ul> <li>- If it is enabled, it means that the IPv4 DHCP client is enabled on the VLAN interface to dynamically obtain the IPv4 address of the switch,</li> <li>- If it is disabled, the static IP configuration of the switch is used</li> </ul>
IP Address	- The user IP address
Subnet Mask	- The static subnet mask
Gateway	- The user gateway IPv4 address

Enter the new management IP address. Click Apply for saving the changes

#### 2.3. User Account

You can modify the login username and password

Click "system" > "User Account", shown as following:

-User Account Setting			
Oser Account Octaing			
	New Username	admin	
	New Password		
	Retype Password		
		Apply	

#### Description:

Parameters	Description
New Username	Enter the new user name
New Password	Enter the new password
Retype Password	Retype the new password

Click Apply for saving the changes.

## 3. VLAN

## 3.1. Static VLAN

This page is used to configure VLANs

Click "VLAN" > "Static VLAN" , shown as following:

VLAN ID				(1-4	109	4)				\	/LA	NN	lam	ie															
Port	Select All	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	2
Untagged	All	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
Tagged	All	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Not Memeber	All	۲	۲	۲	۲	۲	۲	۲	۲	۲		۲	۲	۲	۲	۲	۲	۲		۲	۲	۲	۲	۲	۲	۲	۲	۲	(
Add/Modify			1	I			I													1				I					
VLAN ID	VLAN Nar	ne			Me	mb	er	Por	t		1	ag	ged	Po	orts			U	nta	agg	ed	Ροι	rts				Dele	ete	
1					1-2	8					-							1.	-28							- (			

#### Description:

Parameters	Description
VLAN ID	Enter VLAN ID 1-4094
PORT	Choose the configuration port
Untagged	Click to choose untagged member port
Tagged	Click to choose tagged member port
Not Member	Click to choose Not Member port

Click "Add" for saving the changes

Click "Delete" for saving the changes

### 3.2. VLAN Setting

The page is used to configure VLAN.

Click" Configuration" > "VLAN" > "VLAN setting", shown as following:

Port	PVID	Accepted Frame Type	
Port 1	VLAN 1 V		
Port 2	VLAN 1 V	All Tag-only	
Port 3	VLAN 1 V		
Port 4	VLAN 1 V	All	
Port 5	VLAN 1 V	All	
Port 6	VLAN 1 V	All	

Picture 3-1 VLAN Setting



#### Description:

Parameter	Description
PVID	Enter VLAN ID 1-4094
PORT	Choose the port for configuration
Accepted Frame Type	Choose all, tag-only or untagged-only

Click "Apply" for saving changes

## 4. MAC Address

## 4.1. MAC Search

The switch supports MAC search

Click "MAC Address" >" MAC Search", shown as following:

MAC Addresses Searching			
	MAC Address	VLAN ID	
	00:00:00:00:00:00	(1~4094)	
	Search		

Picture 4-1 MAC Search

## 4.2. Static MAC

The switch supports static MAC

Click "MAC Address" >" Static MAC", shown as following:

-Static MAC Setting							
		MAC Address	VLAN I	D	Port	Source I	AC Blocking
	00	:00:00:00:00:00	(	1~4094) P	rt 1 🗸		
			[	Add			
	No.	MAC Address	VLAN ID	Por		SA Block	Select
			[	Del			

Picture 4-2 Static Static MAC

#### Description:

Parameters	Description
MAC Address	Select the port for configuration
VLAN ID	Enable and disable
Port	(0-4160)
Source MAC Blocking	

Click "Apply" for saving the changes

Click "Del" for saving the changes

## 5. PoE

#### 5.1. PoE Management

This page is used to configure the PoE function.

#### Click" PoE Management" > "PoE setting ", shown as following:

-Global Co Power Suj Apply	nfiguration pply 380 W			
Port	PoE Mode	Extend PoE Mode	PoE Auto-checking	PoE Reboot
Port 1	Enable 🗸	OFF v	OFF v	
Port 2	Enable 🗸	OFF v	OFF v	
Port 3	Enable 🗸	OFF V	OFF V	
Port 4	Enable 🗸	OFF V	OFF v	
Port 5	Enable V	OFF V	OFF v	

Picture 5-1 Port Setting

#### Description:

Parameters	Description
Power supply	Configure the total power budge for PoE
PoE Mode	Enable/Disable the PoE function
PoE Reboot	Reboot the port PoE
Extend PoE Mode	Extend PoE power to 250M on this port
PoE Auto-checking	The PoE port will reboot PD when there is no traffic for 120 seconds.
PoE Reboot	Select to reboot the port's PoE output

Click "Apply" for saving the changes

#### **PoE Port status and information**

It shows the status and detail information when you connect PoE devices to the PoE ports.

Devt	PD	Power	Power	Current	Extend PoE	PoE Auto-	PoE Real
Port	Class	Allocated	Used	Used	Mode	checking	Status
Port 1	0	90[W]	4.9[W]	96[mA]	OFF	OFF	PoE turned ON
Port 2	0	90[W]	3.0[W]	59[mA]	OFF	OFF	PoE turned ON
Port 3	0	90[W]	3.4[W]	66[mA]	OFF	OFF	PoE turned ON
Port 4	-	0[W]	0[W]	0[mA]	OFF	OFF	No PD detected
Port 5	-	0[W]	0[W]	0[mA]	OFF	OFF	No PD detected
Port 6	-	0[W]	0[W]	0[mA]	OFF	OFF	No PD detected
Port 7	-	0[W]	0[W]	0[mA]	OFF	OFF	No PD detected



## 6. Port

## 6.1. Port Management

Configure the port setting here

Click "Port" > "Port Setting" · shown as following :

-Port Setting			
Port	State	Speed/Duplex	Flow Control
Port 1	Enable v	Auto 🗸	Off v
Port 2	Enable v	Auto 🗸	Off v
Port 3	Enable v	Auto 🗸	Off v
Port 4	Enable v	Auto 🗸	Off v
Port 5	Enable	Auto	Off v

#### Picture 6-1 Port Setting

#### Description:

Parameters	Description
Port	The port for configuration
State	Enable/Disable the port
Speed/Duplex	Choose the speed mode, can select Auto/ 10Mbps HDX/10Mbps FDX/ 100Mbps HDX /100Mbps FDX/ 1000M FDX
Flow Control	Enable (on)/Disable(off) the flow control function

Click "Apply" for saving the changes

### 6.2. Port Statistics

VIVOTEK

Click "Port" > "Port Statistics" to check the configuration, shown as following:

Port	State	Link Status	RX Number	RX Unicast	RX Multicast	RX Broadcast	TX Number	TX Unicast	TX Multicast	TX Broadcast	TX Drops
Port 1	Enabled	Link Down	0	0	0	0	0	0	0	0	0
Port 2	Enabled	Link Down	0	0	0	0	0	0	0	0	0
Port 3	Enabled	Link Down	0	0	0	0	0	0	0	0	0
Port 4	Enabled	Link Down	0	0	0	0	0	0	0	0	0
Port 5	Enabled	Link Down	0	0	0	0	0	0	0	0	0
Port 27	Enabled	Link Down	0	0	0	0	0	0	0	0	0
Port 28	Enabled	Link Down	0	0	0	0	0	0	0	0	0



Click "clear" for saving the changes

## 6.3. Storm Control

The switch supports Storm Control

```
Click" Port " > " Storm Control", shown as following:
```

Port	Broadcast	Multicast	Unicast
Port 1			
Port 2			
Port 3			
Port 4			
Port 27			
Port 28			

Picture 6-3 Storm Control

Select the storm type for control, and click "Apply" for saving the changes

### 6.4. Port-based Mirroring

The port mirroring function completely maps the service or control packet traffic of some ports to the specified port. The specified port is the "mirroring port", and the mapped port is the "mirrored port". Connecting a network analyzer to a mirroring port can clearly analyze the packets of the mirroring source port without destroying the normal services of the mirroring source port. Port mirroring is a convenient online monitoring function. All ports of the system can be configured as mirroring source ports, but only one mirroring destination port can be configured. When a port is configured as a mirror port, its corresponding port cannot be configured as a source port. The source port refers to the mirrored port, and multiple ports can be configured. The mirrored destination port can only be configured with one port.

Click " Port" > " Port-based Mirroring" ,shown as following:

Mirror Direction	Mirror-to Port	Mirrored Port List
Disable 🗸	Port 1 🗸	Port 1 🗸
Mirror Direction	Mirror-to Port	Mirrored Port List

#### Picture 6-4 Port S Mirroring

#### Description:

Parameters	Description
Mirroring Port	mirror destination port
Mirrored Port List	mirror source port
Mirror Direction	RX,TX,BOTH

Click "Apply" for saving the changes

## 6.5. Port Isolation

The switch supports port isolation function

Click" Port" > " Port Isolation", shown as following:



-Port Isolation Settin	g-
------------------------	----

Port	Port	lsolat	ion Lis	t										
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Port 1 🗸														
	15	16	17	18	19	20	21	22	23	24	25	26	27	28



#### Description:

Parameters	Desription
Port	Select the port for configuration
Port Isolation List	Select the ports for isolation from the selected port

Click "Apply" for saving the changes

## 6.6. Bandwidth Control

The switch supports port bandwidth control configuration

Click " Port" > " Bandwidth Control", shown as following:

Port	Egress	Rate(Kbit/sec)
Port 1		1048568
Port 2		1048568
Port 3		1048568
Port 4		1048568
Port 5		1048568
Port 6		1048568
Port 7		1048568
Port 8		1048568
Port 9		1048568
Port 10		1048568



Parameters	Description
Port	The port for configuration
Egress	Click to enable/disable the Egress
Rate	Enter the packet rate (0-1000000, multiple of 8)

Click "Apply" for saving the changes

## 7.STP

### 7.1. STP General

The user can configure spanning tree protocol to avoid looping and connect switches as ring topology for cable redundancy.

Click" STP" > "STP General", shown as following:

-STP General	
STP Mode	RSTP V
Apply	RSTP OFF

Picture 7.1 Spanning Tree Protocol

Description:

Parameters	Description
STP	Enable spanning tree protocol
RSTP	Enable rapid spanning tree protocol
OFF	Disable spanning tree protocol

Click "Apply" for saving the changes



## 7.2 STP Config

Priority	32768 🗸
Max.Age	20
Hello Time	2
Forward Delay	15

#### Picture 7.2 Spanning Tree Protocol Configuration

#### Description:

Parameters	Description
Priority	The priority parameter used in the CIST(Common and Internal Spanning Tree) connection. 0 / 4096 / 8192 / 12288 / 16384 / 20480 / 24576 / 28672 / 32768 / 36864 / 40960 / 45056 / 49152 / 53248 / 57344 / 61440
Max.Age	6-40sec. The same definition as in the RSTP protocol.
Hello Time	By default, the hello time is 2 seconds. If the device does not receive configuration BPDUs within the timeout period, it recalculates the spanning tree. The formula for calculating the timeout period is timeout period = timeout factor $\times$ 3 $\times$ hello time.
Forward Delay	4-30sec. The same definition as in the RSTP protocol.

## 8. QoS

## 8.1. Dscp remapping

This page is used to configure port' s DSCP remapping.

Click	"QoS"	>	"Dscp remapping"	, shown	as following:
-------	-------	---	------------------	---------	---------------

DSCP Value	Priority
0 ~	0 ~
Apply	
Apply DSCP value	Priority
DSCP value	Priority 0



Select the DSCP Value and priority in the pull-down list

Click "Apply" for saving the changes

#### 8.2. Priority to Queue

Click "QoS" > " Priority to Queue", shown as following:

Priority selection					
· ······, · ·····					
Priority	Decision				
0 ~					
Арріу					
Priority	Decision				
0	0				
1	0				
2	0				
3	0				
4	0				
5	0				
6	0				
7	0				



Select the Priority and Decision in the pull-down list

Click "Apply" for saving the changes

### 8.3. Port-based Priority

Click "QoS" > " Port-based Priority " , shown as following:

Port-based Priority Setting	
Port	Priority
Port 1 V	
Apply	

Picture 7-3 Port-based Priority

Select the port and priority in the pull-down list

Click "Apply" for saving the changes

## 9. Link Aggregation

## 9.1. Trunk Group Setting

Users can establish multiple links between multiple switches. Link Aggregation is a method to increase bandwidth by bundling a group of physical interfaces together as a logical interface. The switch series supports up to 2-13 port aggregation groups in accordance with the port numbers.



Note: If any port in the link aggregation group is disconnected, packets sent to the disconnected port will share the load with the other ports connected in the link aggregation group.

On this page, the user can configure the port static aggregation settings of the switch.

#### Click "Link Aggregation" > "Trunk Group Setting", shown as following:

Group ID	Ports													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Trunki 🗸														
	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Add / Modify	15	16	17	18	19	20	21	22	23	24	25	26	27	
<b>_</b>														

Attention:

1.Maximum 3 trunk group can be set up.

2.In each trunk group maximum 4 member ports.

3. The mirroring port cannot be added in the trunk group.

#### Picture 8-1 Trunk Group Setting

#### Configuration Description:

Parameters	Description
Group ID	Trunk group ID, maximum 3 trunk groups
Ports	Ports numbers in a trunk group

Click "Apply" for saving the changes

Click Delete to delete the selected trunk group



Note: A static trunk group can be configured with up to 4 ports.



## 10. DO & Temperature

## 10.1. DO & Temperature Setting

DO & Temperature Setting-

mbient Temperature (°C)	Ambient Temperature Lower(°C)	Ambient Temperature Upper(°C)		
25.2℃	-40	90		
mbient Humidity (%)	Ambient Humidity Lower(%)	Ambient Humidity Upper(%)		
43.4%	20	90		
00 Configuration				
00 Mode	DO Enable	System Condition Failure		
		Ambient Temperature		
	(Newbla y	Ambient Humidity		
		Port1		
		Port2		
		Port3		
O Namel Open		Port4		
Jo Normal Open 🗸	Disable	Port5		
		Port6		
		Port7		
		Port8		
		Port9		
		Port10		

The switch comes with a temperature and humidity sensor which can detect ambient temperature and humidity. You can connect an alarm, fan or heater....etc to DO port. Once the event is triggered, the DO device will be on.

#### Do & Temperature Setting

• Ambient Temperature:

Environment's actual temperature.

• Ambient Temperature Lower (°C):

When the actual temperature is below the number that you set, it will trigger DO device.

• Ambient Temperature Upper (°C):

When the actual temperature is higher than the number that you set, it will trigger DO device.

• Ambient Humidity (%):

Environment's actual humidity.

• Ambient Humidity Lower (%):

When the actual humidity is below the number that you set, it will trigger DO device.

• Ambient Humidity Upper (%):

When the actual humidity is higher than the number that you set, it will trigger DO device.

**DO Configuration** 

• DO Mode:

DO normal open: DO1 and DO2 are in the open position. DO normal close: DO1 and DO2 are in the closed position

• DO Enable:

Default is disabled.

• System Condition Failure:

You can choose the events that you want to enable.

**Ambient Temperature:** when you enable it, the DO device will be triggered when the temperature goes over or below the temperature that you set.

**Ambient Humidity:** when you enable it, the DO device will be triggered when the humidity goes over or below the humidity that you set.

Port1 to Port10: when those ports are disconnected or PoE power failure, it will trigger DO devic

## 11. Maintenance

#### 11.1. Firmware Upgrade

The switch supports firmware upgrade on-line

Click "Tools" > " Firmware Upgrade ", shown as following:

—HTTP Firmware Upgrade————————————————————————————————————	Choose File No file chosen Upgrade	
	Please select the file and then click update button	

Picture 9-1 Firmware Upgrade

Click "choose file" to upload a new firmware file, then click "upgrade" to update to the new version firmware





#### 11.2. Reset

Click "Tools" > "Reset ", shown as following:

-Reset Configuration

Reset to default factory settings and restart the system.

Factory Default

Picture 9-3 factory default

Click factory default to restore

### 11.3. Save

Click "Maintenance" > "Save " to save configuration, shown as following:

\*Please note that you must save configuration after you change the settings otherwise the settings that you change will be gone after switch rebooting.

Save configuarions The configuration has been saved successfully.

Picture 9-4 Save

## 11.4. Reboot

Click "Maintenance" > "reboot ", to reboot the switch, shown as following:

- Reboot	
Reboot the switch.	
Reboot	

Picture 9-5 Reboot