

# **Atop Technologies, Inc.**

## **Industrial Managed Gigabit Ethernet Switches**

EHG7512/EHG7516/EHG7520 Series EHG7612/EHG7616/EHG7620 Series

## **Hardware Installation Guide**

Version 3.0 Updated in January, 2019



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P/N:89900514G

# Package Check List

Inside the package you will find the following items:

- Industrial Managed Gigabit Ethernet Switch x 1
- 4-Pin 5.08mm Lockable Terminal Block (Already mounted to the device) x 1
- 5-Pin 5.08mm Lockable Terminal Block (Already mounted to the device) x 1
- DIN-Rail Kit (Already mounted to the device) x 1
- Protective caps for all SFP and PoE ports (Depend on purchased model)
- Installation Guide with Warranty Card x 1

Never install or work on electrical or cabling during periods of lightning activity. Never connect or disconnect power when hazardous gases are present.



Warning: Hot Surface Do Not Touch. RESTRICTED ACCESS AREA: The equipment should only be installed in a Restricted Access Area.



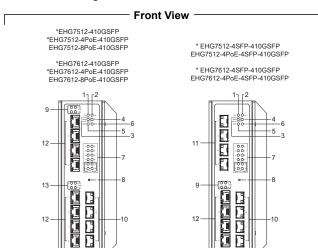
Caution: CLASS 1 LASER PRODUCT. Do not stare into the laser!



This equipment should be installed indoor and not connect directly with equipment

# **Product Layout**

7 RJ45/PoF/SFP Ports LFDs

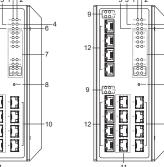


\*RJ45 function is optional with model

1. PWR1 LED 8. Reset button 2. PWR2 LED 9. PoE LEDS 3. Ring LED 10. 10G BASE-X SFP Slots 4. RUN LED 11, 1000 BASE-X SFP Slots 5. Alarm LED 12. 10/100/1000 BASE-T(X) RJ-45 Ports and/or 10/100/1000 BASE-T(X) PoE RJ-45 Ports 6. Ring Master LED

\*EHG7516-4SFP-410GSFP \*EHG7516-4PoE-4SEP-410GSEP EHG7516-8PoF-4SFP-410GSFP EHG7516-4PoF-8SFP-410GSFP

\*EHG7616-4SFP-410GSFP \*EHG7616-8SFP-410GSFP \*EHG7616-4PoF-4SFP-410GSFP EHG7616-4PoE-8SFP-410GSFP EHG7616-8PoF-4SFP-410GSFP



\*EHG7516-8SFP-410GSFP

EHG7516-12SFP-410GSFP

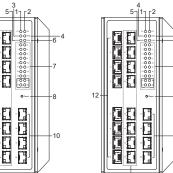
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\* EHG7520-4SFP-410GSFP

EHG7520-8PoE-4SFP-410GSFF

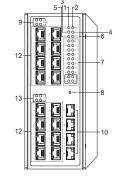
\* EHG7520-12SFP-410GSFP EHG7520-4PoE-12SFP-410GSFF

\* EHG7620-12SFP-410GSFP EHG7620-4PoE-12SFP-410GSFP



\*EHG7520-410GSFP \* EHG7520-4PoE-4SFP-410GSFP \*EHG7520-4PoE-410GSFP EHG7520-8PoE-410GSFP

\* EHG7620-4SFP-410GSFP \*EHG7620-410GSFP \* EHG7620-4PoE-4SFP-410GSFF EHG7620-4PoE-410GSFP EHG7620-8PoE-4SFP-410GSFF EHG7620-8PoE-410GSFP



\*RJ45 function is optional with model

EHG7520-16SFP-410GSFP

EHG7620-16SFP-410GSFP

EHG7520-8SFP-410GSFP EHG7620-8SFP-410GSFP

\*EHG7516-410GSFP

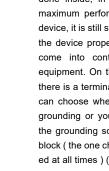
\*EHG7516-4PoE-410GSEP

EHG7516-8PoE-410GSEP

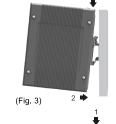
\*EHG7616-410GSEP

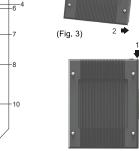
EHG7616-8PoE-410GSFP

\*EHG7616-4PoE-410GSFP



**Top View** 





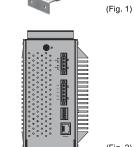


- 1. Grounding Screw
- 2. DIP Switches
- 3. RS-232 Console
- 4. Relay Output 1 with current carrying capacity of 1A@24 VDC (Normal Open)
- 5. Relay Output 2 with current carrying capacity of 1A@24 VDC (Normal Open)
- 6. Frame Ground
- 7. Terminal for Power 1
- 8. Terminal for Power 2

## Installation Overview

The device's appearance is as in the figure below.

- 1. If you have purchased the wall mount kit, proceed to place the screws on the back of the device as show in (Fig. 1).
- 2. Although internal grounding has been done inside, in order to ensure overall maximum performance and protect your device, it is still strongly advised to ground the device properly; hazardous ESD can come into contact and damage your equipment. On the power terminal block, there is a terminal for Frame Ground, you can choose whether to connect it to the grounding or you may opt to connect to the grounding screw next to the terminal block (the one chosen should be connected at all times ) (Fig. 2)

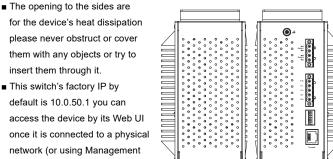


3. Wall mount Screw spec: M3\*0.5P Wall mount Screw specification: M3; screw depth:4.7mm(Max); screws x 4pcs

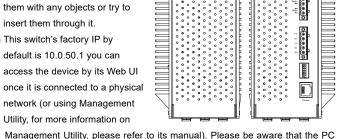
> 4. You can then choose whether to plug in the other peripheral ports at this point or do it later depending comfort for performing such operation.

> 5. Once the plate has been firmly put in place, proceed

6. Next we can then proceed to connect the device to the LAN (switch or PC, depending on the case), take care on using the RJ-45 connector; after this we can



Message



needed for this procedure needs to be in the same subnet, or you may refer yourself to the device User's Manual.

Din Rail Screw specification: M4; screw depth:4.1mm(Max); screws x 3pcs

# **LED Indicators** Name Color Status

Utility, for more information on

7. Din Rail Screw spec: M4\*0.7P

insert them through it.

■ This switch's factory IP by

P1	Croon	On	Power is being supplied through this power input		
P2	Green	Off	Power is not supplied through this power input		
ALM		On	Alarm is triggered by user defined events		
	Red	Off	Alarm is not triggered by user defined events		
RUN	Green	Blinking	AP firmware is running normally		
		On/Off	System is not ready or halt		
		On	All the Rings are running normally		
Ring	Green	Blinking	Ring is in protection state		
		Off	Ring is disabled		
R.M.	Green	On	The device is a Master of the Ring		
K.IVI.	Gleen	Off	The device is a Slave of the Ring		
		On	Port is linked		
SFP	Green	Blinking	Data is transmitting on this port		
		Off	No data is transmitting on this port		
	A l	On	Power is being supplied to a Powered Device (PD		
PoE	Amber	Off	Power is not supplied to a PD		
	Amber	On	Ethernet is connected at 1000Mbps		
LAN		Blinking	Ethernet is connected at 100Mbps		
		Off	Ethernet is connected at 10Mbps		
	Green	On	Ethernet is connected		
		Blinking	Data is transmitting on this port		
		Off	Ethernet is disconnected		

- on the actual location of the device or level of Remeber to plug in the protective caps for the unused SFP and PoE ports.
- to mount the whole device as shown in (Fig. 3). Proceed to (Fig. 4) if you want to remove the device from DIN-Rail.
- then proceed to the device's settings

## **Power Requirements**

■ Power input: 12-57 VDC, 2.2A Max

45-57 VDC, 3.2A Max (For 802.3af models)

51-57 VDC, 5.2A Max (For 802.3at models)

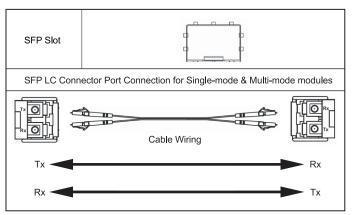
■ Alarm output: 1A@24A VDC for signal use only

# **Pin Assignments and Connections**

10/100/1000BASE-T(X) Ethernet, PoE and RS-232 Console Pinouts

RJ-45								
			10/1	00BASE-	T(X)			
Pin	1	2	3	4	5	6	7	8
Signal	Tx+	Tx-	Rx+			Rx-		
1000BASE-T								
Pin	1	2	3	4	5	6	7	8
Signal	BI_DA+	BI_DA-	BI_DB+	BI_DC+	BI_DC-	BI_DB-	BI_DD+	BI_DD-
PoE								
Pin	1	2	3	4	5	6	7	8
DC	V+	V+	V-			V-		
RS-232 Console								
Pin	1	2	3	4	5	6	7	8
Signal			Tx	GND	GND	Rx		

## 1000BASE-X Fiber Optics SFP Slot



### Caution

The SFP slot should be used in conjunction with a MSA compliant optical transceiver.

## **DIP Switch**

	DIP Switch			Function		
1	ON			Ring active		
	OFF			Ring inactive		
2	ON			Master		
	OFF			Slave		
	ON	4	OFF	Compatible Ring		
3	OFF		ON	iA-Ring		
	OFF		OFF	ERPS Ring		
5*	Reserve for future use					
6	Reserve for future use					

\*Settings are applied when the device is restored to default.

## **Field Maintenance and Service**

If the device requires servicing of any kind, you may need to disconnect and remove it from its mounting. The initial installation should be done in a way that makes this as convenient as possible.

- Voltage/Power lines should be properly insulated as well as other cables. Be careful when handing the so as to not trip over
- Do not under any circumstance insert foreign objects of any kind into the heat dissipation holes located in the different faces of the device. This may not only harm the internal layout but might cause harm to you as well.
- Do not under any circumstance open the device for any reason. Please contact your dealer for any repair needed or follow the instructions on section of your User's Manual.

## Attention

- 1. PoE considered a Network Environment 0 per IEC TR62101, and thus the interconnected ITE circuits may be considered SELV. The installation instructions clearly state that the ITE is to be connected only to PoE networks without routing to the outside plant.
- 2. Suitable for installation in Information Technology Rooms in accordance with Article 645 of the national Electrical Code and NFPA 75.
- 3. This equipment is not suitable for use in locations where children are likely to be present.
- 4. Connect all power cords to a properly wired and grounded electrical outlet.
- 5. This product is intended to be supplied by a Listed(Certificate) power adapter, rated 1) 12-57Vdc, 2.2A minimum (for Non PoE), 2) 45-57Vdc, 3.3A minimum (for 802.3af), 3) 51-57Vdc, 5.2A minimum (for 802.3at), Tma 70 degree C minimum and altitude 2000m minimum, if need further assistance, please contact ATOP TECHNOLOGIES INC further information
- 6. For installing the optical transceiver, please select the one (Certificate) rated 3.3V, labeled or marked "Laser Class I" or equivalent for optional transceiver product

# **Mechanical Dimensions (Unit=mm)**

\* EHG7512-4SFP-410GSFP

EHG7512-4PoE-4SEP-410GSEP

\* EHG7612-4SFP-410GSFP

EHG7612-4PoE-4SFP-410GSFP

\*EHG7512-410GSFP \*EHG7512-4PoE-410GSFP EHG7512-8PoE-410GSFP

\*EHG7612-410GSFP \*EHG7612-4PoE-410GSFP EHG7612-8PoE-410GSFP



\*EHG7516-8SFP-410GSFP

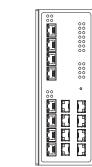
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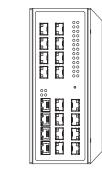
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\*EHG7516-4SEP-410GSEE \*EHG7516-4PoF-4SFP-410GSFP EHG7516-8PoF-4SFP-410GSFP

\*EHG7616-4SEP-410GSEE \*EHG7616-4PoE-4SEP-410GSEP EHG7616-8PoF-4SFP-410GSFP



\* EHG7520-12SFP-410GSFP EHG7520-4PoE-12SFP-410GSFF EHG7516-12SFP-410GSFP \* EHG7620-12SFP-410GSFP EHG7616-12SFP-410GSFP EHG7620-4PoE-12SFP-410GSFF



EHG7520-8SFP-410GSFP

\*FHG7516-410GSFF

\*FHG7516-4PoF-410GSFF

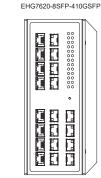
\*EHG7616-410GSEP

\*FHG7616-4PoF-410GSFF

EHG7616-8PoE-410GSFP

port 13~16 with 10G Frame

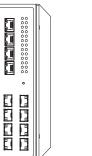
EHG7516-8PoE-410GSFP



\*RJ45 function is optional with model

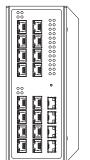
# \* EHG7520-4SFP-410GSFP

- \* EHG7520-4PoE-4SFP-410GSFP EHG7520-8PoE-4SFP-410GSFP
- \* EHG7620-4SFP-410GSFP \* EHG7620-4PoE-4SFP-410GSFP EHG7620-8PoE-4SFP-410GSFP

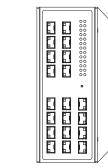


\*EHG7520-410GSFP \*EHG7520-4PoE-410GSFP EHG7520-8PoE-410GSFP

\*EHG7620-410GSFP \*EHG7620-4PoE-410GSFP EHG7620-8PoE-410GSFP



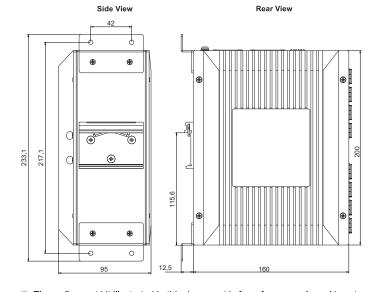
EHG7520-16SFP-410GSFP EHG7620-16SFP-410GSFP



**Bottom View** 

\*RJ45 function is optional with model

# 088880 088880 11111111 . . . . . . . . . . . . . . . . . .



 $\ensuremath{\mathbb{X}}$  The wall mount kit illustrated in this document is for reference only and is not included in the package.

## **Warranty Policy**

## **Warranty Conditions**

Products supplied by Atop Technologies are covered in this warranty for sub-standard performance or defective workmanship. The warranty is not, however, extended to goods damaged in the following circumstances:

- (a) Excessive forces or impacts
- (b) War or an Act of God: wind storm, fire, flood, electric shock, earthquake
- (c) Use of unqualified power supply, connectors, or unauthorized parts/kits
- (d) Replacement with unauthorized parts

## RMA and Shipping Costs Reimbursement

Customers shall always obtain an authorized "RMA" number from Atop before shipping the goods to be repaired to Atop. When in normal use, a sold product shall be replaced with a new one within 3 months after purchase. The shipping cost from the customer to Atop will be reimbursed by Atop.

After 3 months and still within the warranty period, it is up to Atop whether to replace the unit with a new one; normally, as long as a product is under warranty, all parts and labor are free of charge to the customers.

After the warranty period, the customer shall cover the cost for parts and labor. Three months after purchase, the shipping cost from the customer to Atop will not be reimbursed, but the shipping cost from Atop to the customer will be paid by Atop.

## **Limited Liability**

Atop shall not be held responsible for any consequential losses from using Atop's

## **Warranty Period**

Product Categories	Warranty	Product Categories	Warranty
Ethernet Switches		DIN-Rail Power Supplies	3 Years
Wireless			
Serial Device Servers	5 Years	Power Adaptors	1 Year
Modbus Gateways		Antennas	
Media Converters		Automias	
Embedded Device Servers		Other Accessories	

The warranty certification will not be effective until an authorized stamp issued by Atop's overseas agents.

Purchase Date:	1	/	(yyyy/mm/dd)
Serial Number			

## **Atop Customer Services and Supports**

- 1. Please contact your local dealers or Atop Technical Support Center at the following numbers. + 886-3-550-8137 (Atop Taiwan)
- + 86-21-6495-6232 (Atop China)
- 2. Please report the defected problems via Atop's Web site or E-mail account Web Site: www.atop.com.tw, e-mail: service@atop.com.tw Web Site: www.atop.com.cn, e-mail: service@atop.com.cn
- Any changes to this material will be announced on Atop website. -