atop Technologies

Atop Technologies, Inc.

Industrial Managed Rack-Mount Modular Gigabit Ethernet Switch

RHG7528 / RHG7628 Series

Hardware Installation Guide

Version 2.0
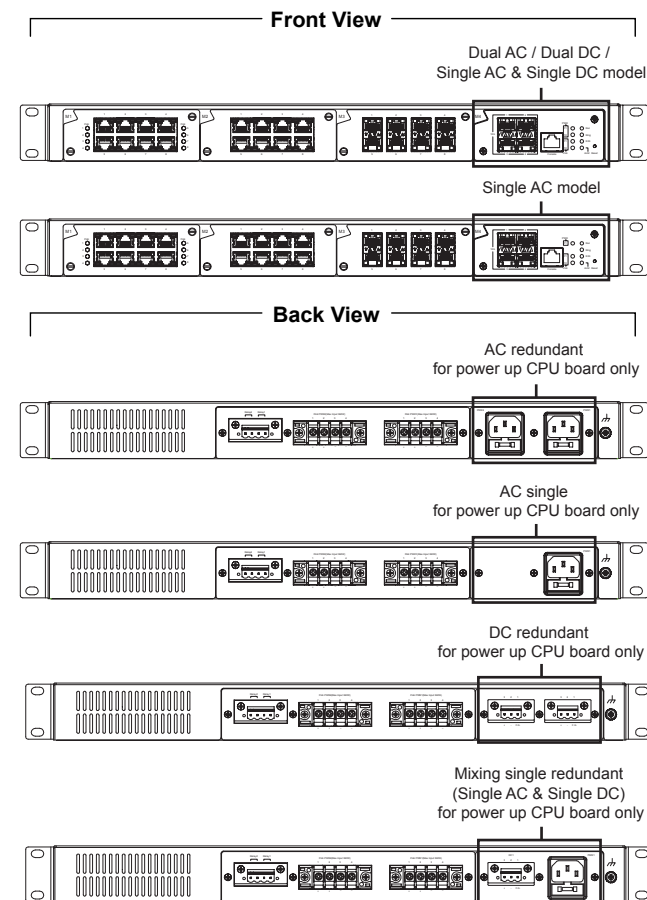Updated in October, 2017

Package Check List

Inside the package you will find the following items:

- Industrial Managed Rack-Mount Modular Gigabit Ethernet Switch x 1
- Rack Mount Kit x 2
- 4-pin Terminal block x 1 for the relay output
- 3-pin Terminal block x 1~2 for the DC models power input
- Protective caps for all SFP 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.

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

🏠 This equipment should be installed indoor and not connect directly with equipment installed outdoor.

🗑 Throw the device must follow RoHS procedure to recycle

Product Layout

Front View

Dual AC / Dual DC / Single AC & Single DC model

Single AC model

Back View

AC redundant
for power up CPU board only

AC single
for power up CPU board only

DC redundant
for power up CPU board only

Mixing single redundant
(Single AC & Single DC)
for power up CPU board only

Installation Overview

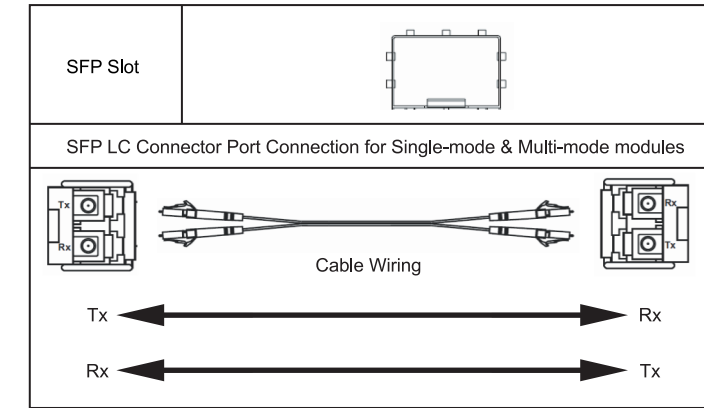The device's appearance is as in the figure below.

1. Ground the device properly. You can use the FG pin in the terminal block. It is required to connect to the grounds at all times to ensure overall maximum performance.

2. If you opt to place the device on a rack, you will need to secure the rack mounts kit on to the device before placing it on the rack. If you opt to place the device on a surface, you can put on the foot rubbers to prevent the device from sliding.

3. You can then choose whether to plug in the I/O ports at this point or do it later. Next you can then proceed to connect the device to the LAN (switch or PC), take care on using the RJ-45 connector; after this we can then proceed to the device's settings.

4. The openings to the sides are for the devices heat dissipation. Please never obstruct or cover them with any objects.

5. This switch's factory IP by default is 10.0.50.1 . you can access the device by its Web UI once it is connected to a physical network (or using Management Utility, for more information on Management Utility, please refer to its manual). Please be aware that the PC needed for this procedure needs to be in the same subnet, or you may refer yourself to the device User's Manual.

Pin Assignments and Connections

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

RJ-45								
10/100BASE-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-
RS-232 Console								
Pin	1	2	3	4	5	6	7	8
Signal			Tx	GND	GND	Rx		

1000BASE-X Fiber Optics SFP Slot

SFP Slot

SFP LC Connector Port Connection for Single-mode & Multi-mode modules

Cable Wiring

Tx ← → Rx
Rx ← → Tx

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

PoE PWR				
Pin	1	2	3	4
Signal	+	+	-	-

DC PWR			
Pin	1	2	3
Signal	F.G.	-	+

Relay output	
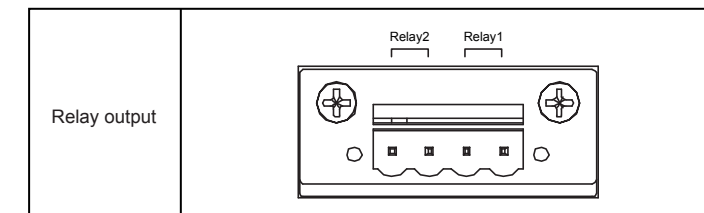
Power Requirements

- Power input : 110-220 VAC, 0.58 A Max, 64W Max (For AC version models)
  48-57 VDC, 0.68A Max, 32.7W Max (For DC version models)
  45-57 VDC, 8.4A Max, 370W Max (For 802.3af models)
  51-57 VDC, 14.4A Max, 720W Max (For 802.3at models)
- Alarm output : 1A@24A VDC for signal use only

LED Indicators

LED	Color	State	Description
PWR1/ PWR2	Green	On	Power is supplied from PWR1/PWR2
		Off	No power input detected from PWR1/PWR2
ALM	Red	On	Alarm is triggered by user defined events
		Off	Alarm is not triggered by user defined events
RUN	Green	Blinking	AP firmware is running normally
		Off	System is not ready or halt
Ring	Green	On	All rings in normal condition or CChain in normal condition
		Blinking	Ring in protection state or a port is link down in CChain
		Off	Ring is disabled or CChain is disable
R.M	Green	On	The device is a Master of the ERPS Ring or iA-Ring or a Head of CChain
		Blinking	The device is a Tail of CChain
		Off	The device is a Slave of the ERPS Ring or iA-Ring or a Member of CChain
10G On LED Panel	Green	On	Port is linked
		Blinking	Data is transmitting on this port
		Off	No data is transmitting
LAN	Amber	On	Ethernet is linked at 1000Mbps
		Blinking	Ethernet is linked at 100Mbps
		Off	Ethernet is linked at 10Mbps
	Green	On	Ethernet is linked
		Blinking	Ethernet is active and data is being transmitted
		Off	Ethernet is not linked
SFP (1G)	Amber	On	Ethernet is linked at 1000Mbps
		Blinking	Ethernet is linked at 100Mbps
		Off	Ethernet is linked at 10Mbps
	Green	On	Ethernet is linked
		Blinking	Ethernet is active and data is being transmitted
		Off	Ethernet is not linked
SFP (10G)	Amber	On	Ethernet is linked at 10GMbps
		Blinking	Ethernet is linked at 1000Mbps
		Off	Ethernet is linked at 100Mbps
	Green	On	Ethernet is linked
		Blinking	Ethernet is active and data is being transmitted
		Off	Ethernet is not linked
PoE	Amber	On	Power is being supplied to a Powered Device (PD)
		Off	Power is not supplied to a Powered Device(PD)
MACsec	Blue	On	MACsec active on that port
		Blinking	Ethernet is active and data is being transmitted
		Off	Ethernet is not linked

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. It is recommend to use at least a 20 AWG cable for the AC power input. It is suggested the cable to be resistant to at least 85°C temperature on the power connector.
2. If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may not be impaired.
3. Clean the device with dry or humid (water) soft cloth.
4. Before powering on the device, the Functional Ground (Grounding Screw) shall be connected to the ground.
5. If the device is AC please connect PWR1. If AC redundant, connect PWR1 and PWR2 to the 100~240V AC power source. This power input manages the full device functions except from PoE.
6. If the device is DC powered, please connect DC1 and DC2 to the DC power supply.
7. If PoE is going to be used, also POE PWR1 and POE PWR2 should be connected to 48~57 VDC power supplies). In order to avoid overheat and damages to the internal components the user should follow the below guidelines:
   ■ Total PoE power needed is <= 360W: connect to either power supply POE PWR1 or POE PWR2 or both.
   ■ Total PoE power needed is >360W but <=720W (max): connect to both POE PWR1 and POE PWR2 in order to avoid overhead.
8. POE PWR1 or POE PWR2 support maximum input 360 W.
9. POE PWR1 / POE PWR2 , + / - pins should be connected in same PWR input Terminal block, please don't cross-connect.

Environmental Limits

■ Operating Temperature: -40 to 75°C (-40 to 167°F)
■ Storage Temperature: -40 to 85°C (-40 to 185°F)
■ Ambient Relative Humidity: 5 to 95%, 55°C (non-condensing)
■ Altitude: up to 2,000 m
■ Housing Protection : IP 30

Mechanical Dimensions (Unit=mm)

Front View

Back View

482,6
464,5
31,8

Site View

340
44

Top View

440
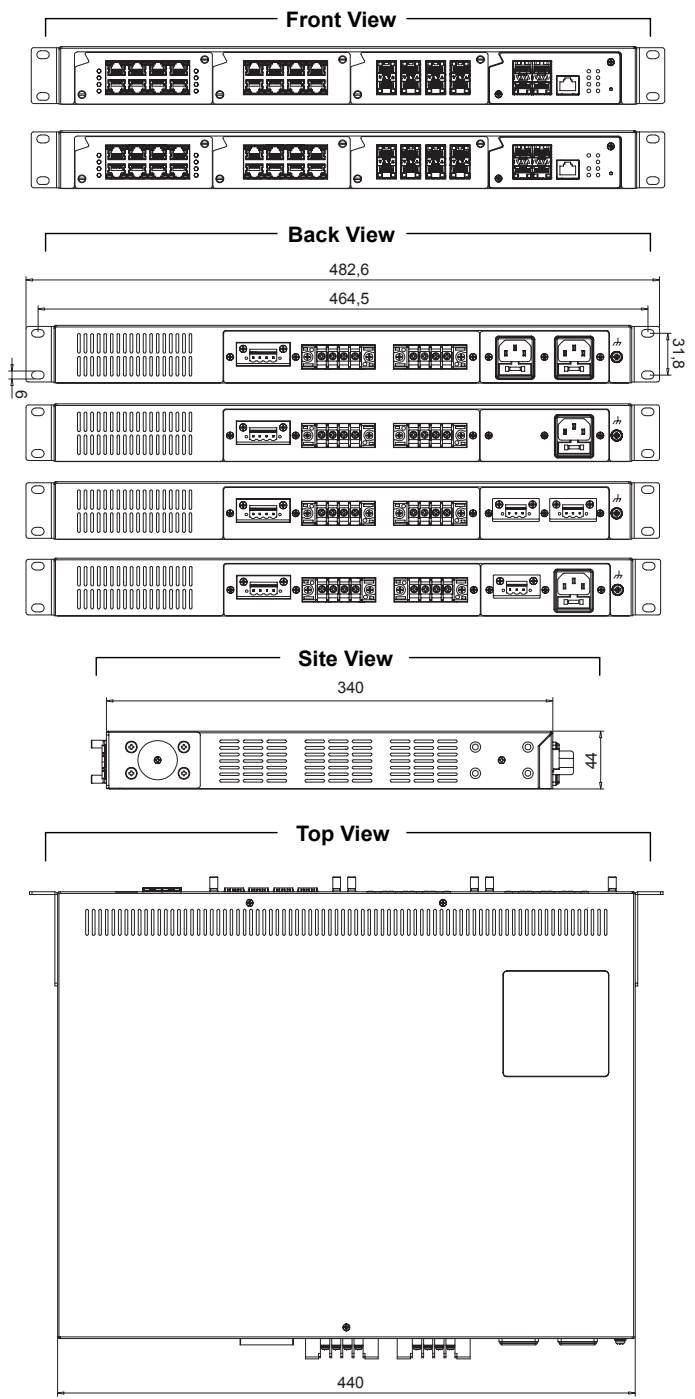
※ The wall mount kit illustrated in this document is for reference only and is not included in the package.

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 product.

Warranty Period

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

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

Purchase Date: /   /   (yyyy/mm/dd)

Serial Number

— Any changes to this material will be announced on Atop website. —