Industrial L3 16-Port 10/100/1000T 802.3at PoE+ 2-Port 10/100/1000T + 2-Port 1G/2.5G SFP Managed Ethernet Switch

IGS-20160HPT

Quick Installation Guide

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1. Package Contents

Thank you for purchasing PLANET Industrial L3 16-Port 10/100/1000T 802.3at PoE+ 2-Port 10/100/1000T + 2-Port 1G/2.5G SFP Managed Ethernet Switch. The description of this model is as follows:

Model	10/100/1000T RJ45 Ports	802.3at PoE+ Ports	1G/2.5G SFP Ports
IGS-20160HPT	18	16	2

"Industrial Managed PoE+ Switch" mentioned in this Quick Installation Guide refers to the above models.

Open the box of the Industrial Managed PoE+ Switch and carefully unpack it. The box should contain the following items:

Item	IGS-20160HPT
Quick Installation Guide	
DIN-rail Kit	
Wall Mounting Kit	
DB9 to RJ45 Interface RS232 Console Cable	
RJ45 Dust Cap	19
SFP Dust Cap	2

If any item is found missing or damaged, please contact your local reseller for replacement.

2. Requirements

- Workstations running Windows XP/2003/2008/2012/Vista/7/8/10, MAC OS X or later, Linux, UNIX, or other platforms are compatible with TCP/IP protocols.
- Serial Port Connection (Terminal)
 - > The above Workstations come with COM Port (DB9) or USB-to-RS232 converter.
 - > The above Workstations have been installed with terminal emulator, such as Hyper Terminal included in Windows XP/2003, putty or tera term.
 - > Serial cable -- one end is attached to the RS232 serial port, while the other end to the RJ45 console port of the Industrial Managed PoE+ Switch.

• Ethernet Port Connection

- > Workstations are installed with Ethernet NIC (Network Interface Card)
- > Network cables -- Use standard network (UTP) cables with RJ45 connectors.
- > The above PC is installed with Web browser.



It is recommended to use Internet Explorer 8.0 or above to access the Industrial Managed PoE+ Switch. If the Web interface of the Industrial Managed PoE+ Switch is not accessible, please turn off the anti-virus software or firewall and then try it again.

3. Wiring the Power Inputs

The Upper Panel of the Industrial Managed PoE+ Switch indicates a DC inlet power socket and consists of one terminal block connector within 6 contacts. Please follow the steps below to insert the power wire.

- 1. Insert positive/negative DC power wires into Contacts 1 and 2 for Power 1, or Contacts 5 and 6 for Power 2.
- IGS-20160HPT: DC 48-56V

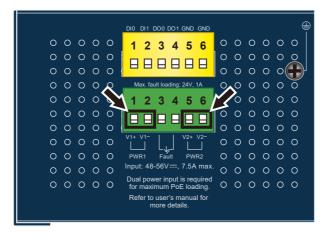
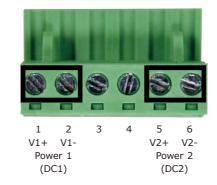


Figure 3-1: IGS-20160HPT Upper Panel

2. Tighten the wire-clamp screws for preventing the wires from loosening.



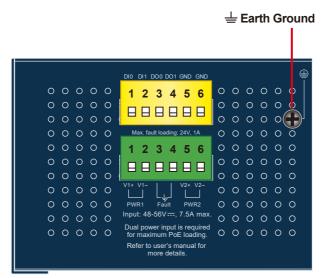
Model	Positive (+) Pin	Negative (-) Pin
IGS0-20160HPT	Pin 1 / 5	Pin 2 / 6



- 1. The wire gauge for the terminal block should be in the range from **12** to **24 AWG**.
- 2. Please check the wire AWG Ampere specification before connecting PLANET Industrial Managed Switch.

3.1 Grounding the Device

Users **MUST** complete grounding wired with the device; otherwise, a sudden lightning could cause fatal damage to the device.





EMD (Lightning) DAMAGE IS NOT CONVERED UNDER WARRANTY.

4. Terminal Setup

To configure the system, connect a serial cable to a **COM port** on a PC or notebook computer and to RJ45 type serial (console) port of the Industrial Managed PoE+ Switch. The console port of the Industrial Managed PoE+ Switch is DCE already, so that you can connect the console port directly through PC without the need of null modem.

IGS Industrial Managed Switch



Figure 4-1: Industrial Managed PoE+ Switch Console Connectivity

A terminal program is required to make the software connected to the Industrial Managed PoE+ Switch. Windows' **Hyper Terminal** program may be a good choice. The Hyper Terminal can be accessed from the **Start** menu.

1. Click START, then Programs, Accessories and then Hyper Terminal.

- 2. When the following screen appears, make sure that the COM port should be configured as:
 - Baud: 115200
 - Parity: None
 - Data Bits: 8
 - Stop Bits: 1
 - Flow Control: None

COM1 Properties 🔹 🥐 🔀			
Port Settings			
<u>B</u> its per second:	115200		
<u>D</u> ata bits:	8	~	
Parity:	None	~	
<u>S</u> top bits:	1	~	
Elow control:	None	~	
	<u>R</u> estore [Defaults	
OK Cancel Apply			

Figure 4-2: COM Port Configuration

4.1 Logging on to the Console

Once the terminal has been connected to the device, power on the Industrial Managed PoE+ Switch and the terminal will display "running testing procedures".

Then, the following message asks to log in user name and password as shown in Figure 4-3. Please enter the factory default user name **"admin"** and password **"admin"**.

Username: **admin** Password: **admin**



Figure 4-3: Console Login Screen

The user can now enter commands to manage the Managed Switch. For a detailed description of the commands, please refer to the following chapters.



1. For security reason, please change and memorize the new password after this first setup.

2. Only accept command in lowercase letter under console interface.

4.2 Configuring IP Address

The Industrial Managed PoE+ Switch is shipped with default IP address shown below:

IP Address: **192.168.0.100** Subnet Mask: **255.255.255.0** To check the current IP address or modify a new IP address for the Industrial Managed PoE+ Switch, please use the procedure as follows:

Display of the current IP Address

- 1. At the "#" prompt, enter "show ip interface brief".
- 2. The screen displays the current IP address shown in Figure 4-4.

Press ENTER to get started		
Username: admin Password:		
IGS-20160HPT# show ip interface		<u>.</u>
Interface Address	Method 	Status
VLAN 1 192.168.0.100/24 IGS-20160HPT#	Manual	UP

Figure 4-4: IP Information Screen

Configuration of the IP Address

3. At the **"#"** prompt, enter the following command and press **<Enter>** as shown in Figure 4-5.

IGS-20160HPT# configure terminal IGS-20160HPT(config)# interface vlan 1 IGS-20160HPT(config-if-vlan)# ip address 192.168.1.100 255.255.255.0

The previous command would apply the following settings for the Industrial Managed PoE+ Switch.

IP Address: **192.168.1.100** Subnet Mask: **255.255.255.0**

IGS-20160HPT# configure terminal IGS-20160HPT(config)# interface vlan 1 IGS-20160HPT(config-if-vlan)# ip address 192.168.1.100 255.255.255.0 IGS-20160HPT(config-if-vlan)#

Figure 4-5: Configuring IP Address Screen

4. Repeat step 1 to check if the IP address has changed.

Storing Current Switch Configuration

5. At the "#" prompt, enter the following command and press <Enter>.

copy running-config startup-config

```
Press ENTER to get started

Username: admin

Password:

IGS-20160HPT# configure terminal

IGS-20160HPT(config)# interface vlan 1

IGS-20160HPT(config-if-vlan)# ip address 192.168.1.100 255.255.255.0

IGS-20160HPT(config-if-vlan)# exit

IGS-20160HPT(config)# exit

IGS-20160HPT# copy running-config startup-config

Building configuration...

do not reset or power off the device!

% Saving 5350 bytes to flash:startup-config

IGS-20160HPT#
```



If the IP is successfully configured, the Industrial Managed PoE+ Switch will apply the new IP address setting immediately. You can access the Web interface of the Industrial Managed PoE+ Switch through the new IP address.



If you are not familiar with the console command or the related parameter, enter "**help**" anytime in console to get the help description.

5. Starting Web Management

The following shows how to start up the **Web Management** of the Industrial Managed PoE+ Switch. Note the Industrial Managed PoE+ Switch is configured through an Ethernet connection. Please make sure the manager PC must be set to the same **IP subnet address**.

For example, the default IP address of the Industrial Managed PoE+ Switch is **192.168.0.100**, then the manager PC should be set to **192.168.0.x** (where x is a number between 1 and 254, except 100), and the default subnet mask is 255.255.255.0.

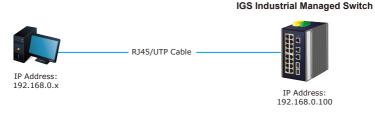


Figure 5-1: IP Management Diagram

5.1 Logging in to the Industrial Managed PoE+ Switch

- Use Internet Explorer 8.0 or above for Web browser and enter IP address <u>https://192.168.0.100</u> (the factory-default IP address) to access the Web interface.
- When the following dialog box appears, please enter the default user name "admin" and password "admin" (or the password you have changed before) as shown in Figure 5-2.

Default IP Address: **192.168.0.100** Default Username: **admin** Default Password: **admin**

Authentication required				
http://192.168.0.100 Your connection to this site is not private				
Username				
Password				
	Log in	Cancel		

Figure 5-2: Web Login Screen

3. After entering the password, the main screen appears as shown in Figure 5-3.



Figure 5-3: Web Main Screen of Industrial Managed PoE+ Switch

The Switch Menu on the top of the Web page lets you access all the commands and statistics the Industrial Managed PoE+ Switch provides. The Switch Menu always contains one or more buttons, such as "System", "Switching", "Routing", "QoS", "Security", "PoE", "Ring", "ONVIF" and "Maintenance".



Figure 5-4: Switch Menu

🔅 System	Switching	💥 Routing	₩ QoS	Security
 Management SNMP RMON DHCP Server Industrial Protocol Remote Management 	 Port Management Link Aggregation VLANS VLAN Translation Spanning Tree IGMP Snooping MLD Snooping MVR LLDP MAC Address Table Loop Protection UDLD GVRP PTP Link OAM 	 IP Configuration IP Status Routing Info. Base OSPF 	 General Bandwidth Control Storm Control Differentiated Services QCL 	 Access Security AAA Port Authentication Port Security Access Control List DHCP Snooping IP Source Guard ARP Inspection

Figure 5-5: Switch Sub-menu



Figure 5-6: Switch Sub-menu

Now, you can use the Web management interface to continue the Switch management. Please refer to the user manual for more.



If you are not familiar with Switch functions or the related parameter, press "Help icon" anytime on the Web page to get the help description.

5.2 Saving Configuration

To save all applied changes and set the current configuration as a startup configuration on the Web user interface, the startup-configuration file will be loaded automatically across a system reboot.

1. Click the **Save** icon on the top Switch Menu bar.



2. Press the "Save Configuration" button.



3. Or the other way to save the setting is to Click **Maintenance**, **Switch Maintenance**, **Save Startup Config**.



Figure 5-7: Save Config -- Maintenance

6. Recovering Back to Default Configuration

IP address has been changed or admin password has been forgotten –

To reset the IP address to the default IP address **"192.168.0.100"** and the user password to factory default mode (default password is **admin**), press the hardware-based **reset button** on the front panel for about **10 seconds**. After the device is rebooted, you can log in the management Web interface within the same subnet of 192.168.0.xx and default password. Be noted that all the previous setups will be disappeared after the factory default reset is made.

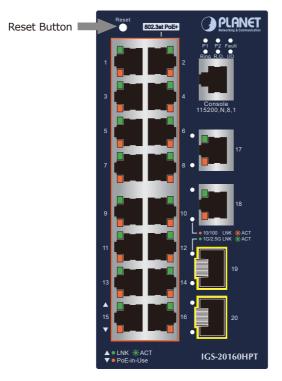


Figure 6-1: IGS-20160HPT Reset Button

7. Customer Support

Thank you for purchasing PLANET products. You can browse our online FAQ resource on PLANET web site first to check if it could solve your issue. If you need more support information, please contact PLANET switch support team.

PLANET online FAQs: http://www.planet.com.tw/en/support/faq

Switch support team mail address: support@planet.com.tw

IGS-20160HPT User's Manual: https://www.planet.com.tw/en/support/downloads?method=keyword&keyword=IGS &view=3&page=1#list



(Please select your switch model name from the Product Model drop-down menu.)

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