Layer 3 24-Port 10G SFP+ + 4-Port 100G

QSFP28 Managed Switch

XGS-6350-24X4C

Quick Installation Guide

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1. Package Contents

Thank you for purchasing PLANET Layer 3 24-Port 10G SFP+ + 4-Port 100G QSFP28 Managed Switch, XGS-6350-24X4C.

Unless specified, **"Managed Switch"** mentioned in this Quick Installation Guide refers to the XGS-6350-24X4C.

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

● The Managed Switch x 1

● Quick Installation Guide x 1

● RJ45-to-DB9 Console Cable x 1

● Power Cord x 1

● Rubber Feet x 4

● Two Rack-mounting Brackets with Attachment Screws x 6

● SFP Dust Cap x 28 (installed on the machine)

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

2. Switch Management

To set up the Managed Switch, the user needs to configure the Managed Switch for network management. The Managed Switch provides two management options: **Out-of-Band Management** and **In-Band Management**.

■ Out-of-Band Management

Out-of-band management is the management through console interface. **Generally, the user will use out-of-band management for the initial switch configuration**, or when in-band management is not available.

■ In-Band Management

In-band management refers to the management by logging in to the Managed Switch using Telnet or HTTP, or using SNMP management software to configure the Managed Switch. In-band management enables the management of the Managed Switch to attach some devices to the Switch. The following procedures are required to enable in-band management:

1. Logon to console

2. Assign/Configure IP address

3. Create a remote login account

4. Enable HTTP or Telnet server on the Managed Switch

In case in-band management fails due to Managed Switch configuration changes, out-of-band management can be used for configuring and managing the Managed Switch.

⚠ Important	The Managed Switch is shipped with **Management Port** IP address **192.168.1.1/24** assigned and **VLAN1 interface** IP address **192.168.0.254/24** assigned by default. User can assign another IP address to the Managed Switch via the console interface to be able to remotely access the Managed Switch through Telnet or HTTP.

3. Requirements

- Workstations running Windows XP/2003/Vista/2008/7/8/10, MAC OS X or later, Linux, UNIX, or other platforms are compatible with TCP/IP protocols.

- Workstations are installed with Ethernet NIC (Network Interface Card)

- 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 Tera Term or PuTTY.

  ➢ Serial cable -- one end is attached to the RS232 serial port, while the other end to the console port of the Managed Switch.

- Management Port Connection

  ➢ Network cables -- Use standard network (UTP) cables with RJ45 connectors.

  ➢ The above PC is installed with Web browser.

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

4. Terminal Setup

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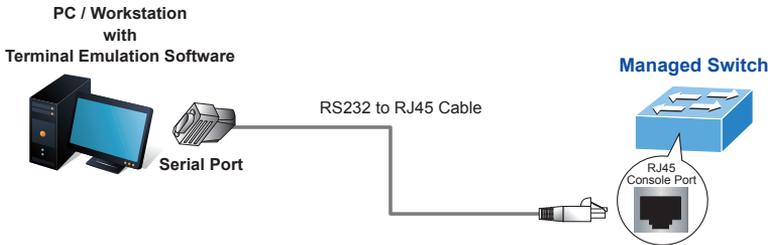

Figure 4-1 Managed Switch Console Connectivity

A terminal program is required to make the software connection to the Managed Switch. Tera Term program may be a good choice. The Tera Term can be accessed from the **Start** menu.

1. Click **START** menu, then **Programs**, and then **Tera Term**.

2. When the following screen appears, make sure that the COM port should be configured as:

◆ Baud: 9600
◆ Parity: None
◆ Data bits: 8
◆ Stop bits: 1
◆ Flow control: None
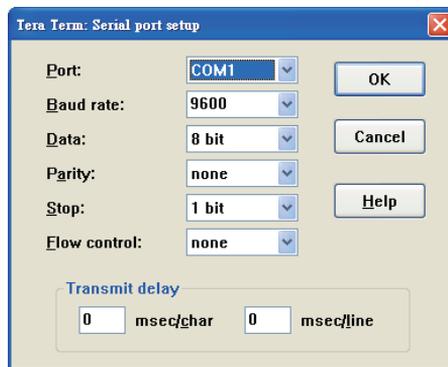
Figure 4-2 Tera Term COM Port Configuration

4.1 Logging on to the Console

Once the terminal is connected to the device, power on the Managed Switch, and the terminal will display **"running testing procedures"**.

Then, the following message asks for the login user name and password. The factory default user name and password are as follows as the login screen in Figure 4-3 appears.

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

```
User Access Verification

Username: admin
Password:
Switch>enable
Switch#
```

Figure 4-3 Managed Switch Console Login Screen

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

Note	1. For security reason, please change and memorize the new password after this first setup. 2. Accept command in lowercase or uppercase letter under console interface.

4.2 Configuring IP Address

The IP address configuration commands for **VLAN1 interface** are listed below. Before using in-band management, the Managed Switch must be configured with an IP address by out-of-band management (i.e. console mode). The configuration commands are as follows:

Switch#**config**
Switch_config#**interface vlan 1**
Switch_config_v1#**ip address 192.168.1.254 255.255.255.0**

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

IPv4 Address: 192.168.1.254
Subnet Mask: 255.255.255.0

```
Switch#config
Switch_config#interface vlan1
Switch_config_v1#ip address 192.168.1.254 255.255.255.0
Switch_config_v1#
Switch_config_v1#
Switch_config_v1#
```

Figure 4-4 Configuring IPv4 Address Screen

To check the current IP address or modify a new IP address for the Managed Switch, please use the procedures as follows:

■ Show the current IP address

1. On **"Switch#"** prompt, enter **"show ip interface brief"**.

2. The screen displays the current IP address, subnet mask and gateway as shown in Figure 4-5.

```
Switch#config
Switch_config#interface vlan1
Switch_config_v1#ip address 192.168.1.254 255.255.255.0
Switch_config_v1#
Switch_config_v1#
Switch_config_v1#
Switch_config_v1#exit
Switch_config#show ip interface brief
Interface          IP-Address     Method Protocol-Status
Null0              unassigned     manual up
VLAN1              192.168.1.254 manual up
Switch_config#
```

Figure 4-5 Showing IP Information Screen

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

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

4.3 Setting 1000BASE-X for 10G SFP+ Port

The Managed Switch supports both **1000BASE-X** and **10GBASE-X** SFP transceivers by manual setting and the default SFP+ port speed is set to 10Gbps. For example, to establish the fiber connection with 1000BASE-X SFP transceiver in the **tgigaethernet 0/1**, the following command configuration is required:

```
Switch#config
Switch_config#interface tgigaethernet 0/1
Switch_config_tg1/1#speed 1000
Switch_config_tg1/1#exit
Switch_config#interface range tgigaethernet 0/2-24
Switch_config_if_range#speed 1000
Switch_config_if_range#
```



```
Switch#config
Switch_config#interface tgigaethernet 0/1
Switch_config_tg0/1#speed 1000
Switch_config_tg0/1#exit
Switch_config#interface range tgigaethernet 0/2-24
Switch_config_if_range#speed 1000
Switch_config_if_range#
```

Figure 4-6 Setting 1000BASE-FX Screen

4.4 Setting 40GBASE-X for 100G SFP+ Port

The Managed Switch supports both **40GBASE-X** and **100GBASE-X** SFP transceivers by manual setting and the default SFP+ port speed is set to 100Gbps. For example, to establish the fiber connection with 40GBASE-X SFP transceiver in the **cgigaethernet 0/1**, the following command configuration is required:

Switch#**config**
Switch_config#**interface cgigaethernet 0/1**
Switch_config_cg0/1#**speed 40000**
Switch_config_cg0/1#**exit**
Switch_config#**interface range cgigaethernet 0/2-4**
Switch_config_if_range#**speed 40000**
Switch_config_if_range#

```
Switch#config
Switch_config#interface cgigaethernet 0/1
Switch_config_cg0/1#speed 40000
Switch_config_cg0/1#exit
Switch_config#interface range cgigaethernet 0/2-4
Switch_config_if_range#speed 40000
Switch_config_if_range#
```

Figure 4-7 Setting 40GBASE-FX Screen

4.5 Changing Password

The default password of the switch is "admin". For security reason, it is recommended to change password and the following command configuration is required:

Switch#**config**
Switch_config#**username admin password planet2018**
Switch_config#

```
Switch#config
Switch_config#username admin password planet2018
Switch_config#
```

Figure 4-8 Changing Password Interface Screen

4.6 Saving the Configuration

In Managed Switch, the running configuration file stores in the RAM. In the current version, the running configuration sequence running-config can be saved from the RAM to FLASH by **write** command, so that the running configuration sequence becomes the start-up configuration file, which is called configuration save.

Switch#**write**

```
Switch#write
Saving current configuration…
OK!
Switch#Jan 5 00:45:12 /startup-config is wrote. TID:87172682
Switch#
```

Figure 4-9 Write Screen

5. Starting Web Management

The Managed Switch provides a built-in browser interface. You can manage it remotely by having a remote host with Web browser, such as Microsoft Internet Explorer, Mozilla Firefox, Google Chrome or Apple Safari.
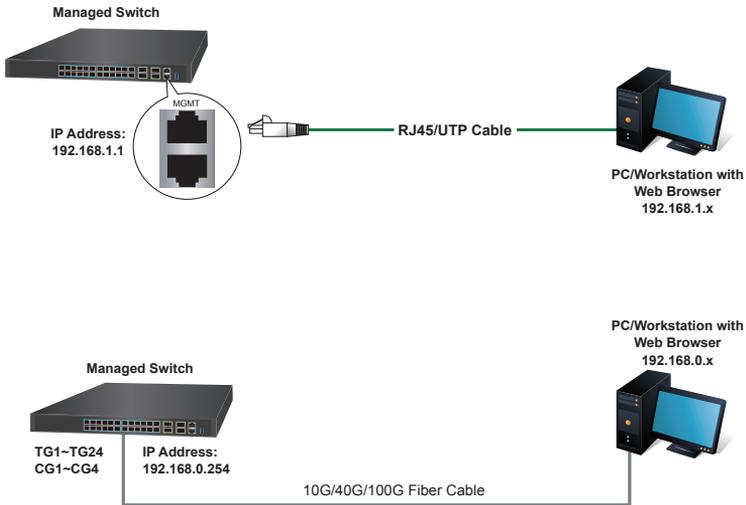

Figure 5-1 IP Management Diagram

The following shows how to start up the **Web Management** of the Managed Switch. Please note the Managed 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 IP address of the Managed Switch is configured with *192.168.0.254* on **Interface VLAN 1** and *192.168.1.1* on **Management Port**, then the manager PC should be set to **192.168.0.x** or **192.168.1.x** (where x is a number between 2 and 253, except 1 or 254), and the default subnet mask is 255.255.255.0.

The factory default user name and password are as follows:

Default IP of Management Port: **192.168.1.1**
Default IP of Interface VLAN 1: **192.168.0.254**
Username: **admin**
Password: **admin**

5.1 Logging in to the Managed Switch from Management Port

1. Use Internet Explorer 8.0 or above Web browser and enter IP address ***http://192.168.1.1*** (that you have just set in console) to access the Web interface.

2. When the following dialog box appears, please enter the configured username **"admin"** and password **"admin"** (or the username/password you have changed via console). The login screen in Figure 5-2 appears.
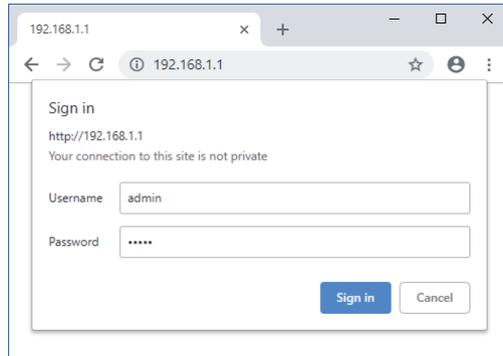
Figure 5-2 Login Screen

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

Figure 5-3 Web Main Screen of Managed Switch

4. The Switch Menu on the left of the Web page lets you access all the commands and statistics the Switch provides.

Now, you can use the Web management interface to continue the Switch management or manage the Managed Switch by console interface. Please refer to the user manual for more.

5.2 Saving Configuration via the Web

The configuration area is to show the content that is selected in the navigation area. The configuration area always contains one or more buttons, such as "Refresh", "Apply" and "Reset".

The **"Apply"** button indicates applying the modified configuration to the device. The application of the configuration does not mean that the configuration is saved in the configuration file.

To save the configuration, you have to click **"Save All"** on the top control bar. **"Save All"** function is equivalent to the execution of the **write** command.

Figure 5-4 Save Cconfiguration

6. LED Indicators

■ System

LED	Color	Function
PWR	Green	Lights to indicate that the Switch has power.
	Off	Power is off.
SYS	Green	Blinks to indicate the system diagnosis is completed; lights to indicate the system is normally starting up.

■ SFP+ Interfaces

LED	Color	Function
LNK/ACT	Green	Blinks to indicate the data is transmitting and receiving through the port; lights to indicate the link on the port is normal.

■ 40G Status LED (Divided into 4 10G)

LED	Color	Function
LNK/ACT (CG1~CG4)	Green	Operating in 100G mode, the LED does not light; when the QSFP+ corresponding port indicator is lit, 4 indicators indicate the LINK/ACT status of the 4 10GE ports corresponding to the QSFP+ port.
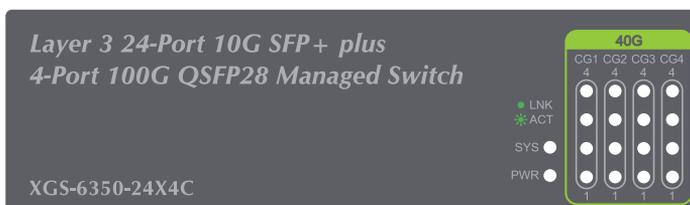
7. Customer Support

Thank you for purchasing PLANET products. You can browse our online FAQ resource at the 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.php?type=1

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

XGS-6350-24X4C User's Manual
http://www.planet.com.tw/en/support/download.php?view=3&key=XGS-6350-24X4C#list