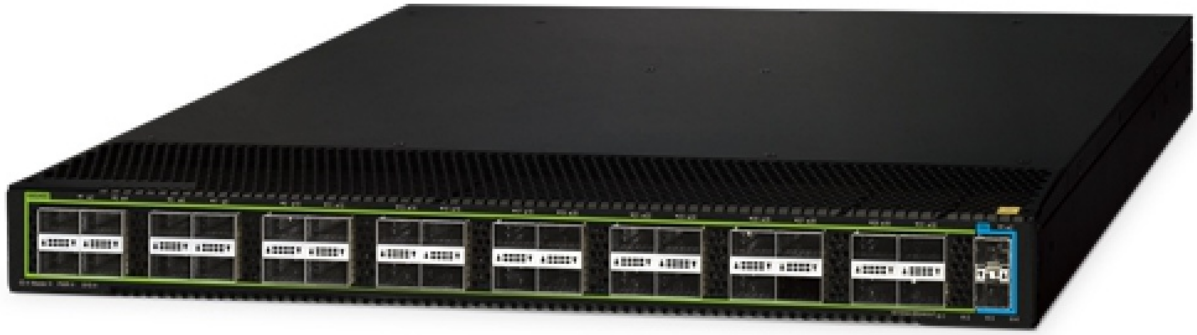
PLANET DCS-7342-32C2X Managed Data Center Switch Installation Guide

Contents

PLANET DCS-7342-32C2X Managed Data Center Switch



Product Specifications

- **Model:** DCS-7342-32C2X, DCS-7342-48Y8C
- **DCS-7342-32C2X Description:** Layer 3 32-Port 100G/40G QSFP28 + 2-Port 10G SFP+ Managed Data Center Switch
- **DCS-7342-48Y8C Description:** Layer 3 48-Port 25G SFP28 + 8-Port 100G/40G QSFP28 Managed Data Center Switch

Product Usage Instructions

Package Contents:
Thank you for purchasing PLANET Layer 3 Managed Data Center Switches, DCS-7342-Series (DCS-7342-32C2X and DCS-7342-48Y8C). Open the box of the Managed Switch and carefully unpack it. The box should contain the following items:

- QR Code Sheet
- RS232 to RJ45 Console Cable
- Rack Mount Accessory Kit
- AC Power Cord
- Rubber Feet
- SFP Dust Cap

Switch Management:
To manage the switch, follow these steps:

1. Log on to console
2. Assign/Configure IP address
3. Create a remote login account
4. Enable HTTPs or Telnet server on the Managed Switch

Requirements:
Ensure the following requirements are met:

- Workstations running Windows 10/11, macOS 10.16 or later, Linux, UNIX, or other compatible platforms with TCP/IP Protocols.
- Workstations with Ethernet NIC (Network Interface Card).
- Serial Port Connection (Terminal) – Workstations must have COM Port (DB9) or USB-to-RS232 converter and

terminal emulator software like Tera Term or PuTTY.

Terminal Setup:
To set up the terminal for configuration:

- Connect a serial cable to a COM port on a PC or notebook computer and to the serial (console) port of the Managed Switch.
- The console port of the Managed Switch is DCE, allowing direct connection to a PC without a Null Modem.

FAQ

- **What should I do if any item is missing or damaged in the package?**
  Please contact your local reseller for replacement of the missing or damaged items.
- **How can I manage the switch if in-band management fails?**
  In case in-band management fails due to configuration changes, out-of-band management can be used for configuring and managing the switch.

Package Contents

Thank you for purchasing PLANET Layer 3 Managed Data Center Switches, DCS-7342-Series (DCS-7342-32C2X and DCS-7342-48Y8C). Unless specified, “Managed Switch” mentioned in this Quick Installation Guide refers to the DCS-7342-32C2X and DCS-7342-48Y8C.

Model	Description
DCS-7342-32C2X	Layer 3 32-Port 100G/40G QSFP28 + 2-Port 10G SFP+ Managed Data Center Switch
DCS-7342-48Y8C	Layer 3 48-Port 25G SFP28 + 8-Port 100G/40G QSFP28 Managed Data Center Switch

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

	DCS-7342-32C2X	DCS-7342-48Y8C
QR Code Sheet	■	■
RS232 to RJ45 Console Cable	■	■
Rack Mount Accessory Kit	■	■
AC Power Cord	2	2
Rubber Feet	4	4
SFP Dust Cap	34	56

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

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 HTTPs, 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. Log on to console
2. Assign/Configure IP address
3. Create a remote login account
4. Enable HTTPs 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.

Requirements

- Workstations running Windows 10/11, macOS 10.16 or later, Linux, UNIX, or other platforms that 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 Tera Term or PuTTY

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.

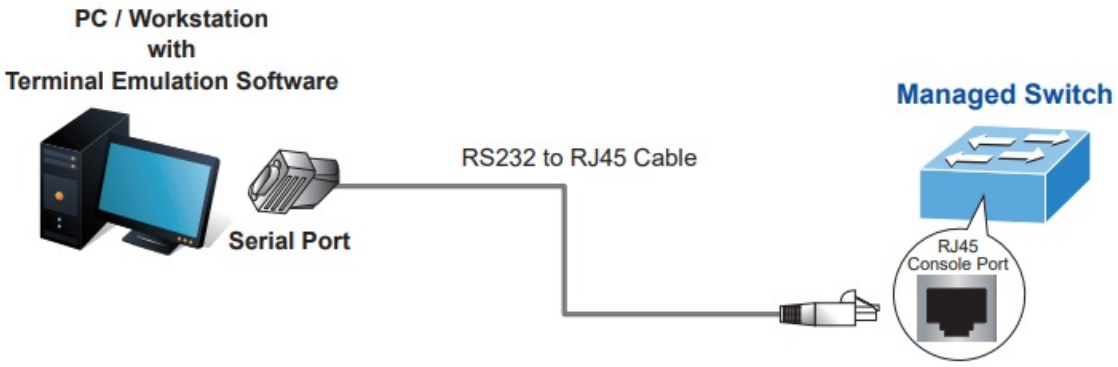


Figure 4-1: Managed Switch Console Connectivity

- 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**: 115200
        - **Parity:** None
        - **Data bits:** 8
        - **Stop bits**: 1
        - **Flow control:** None

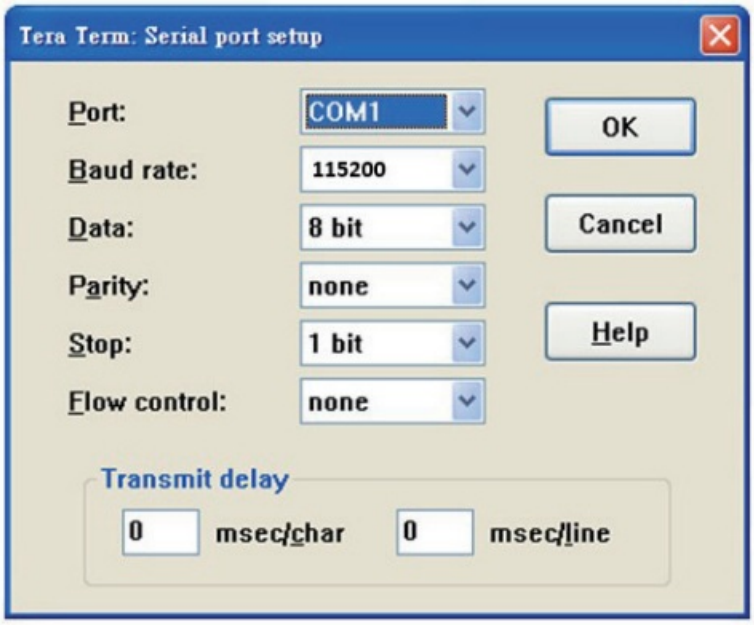


Figure 4-2: Tera Term COM Port Configuration

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 4-4 appears.
    - **Username:** admin

- **Password:** sw + the last 6 characters of the MAC ID in lowercase

- Find the MAC ID on your device label. The default password is “sw” followed by the last six lowercase characters of the MAC ID.

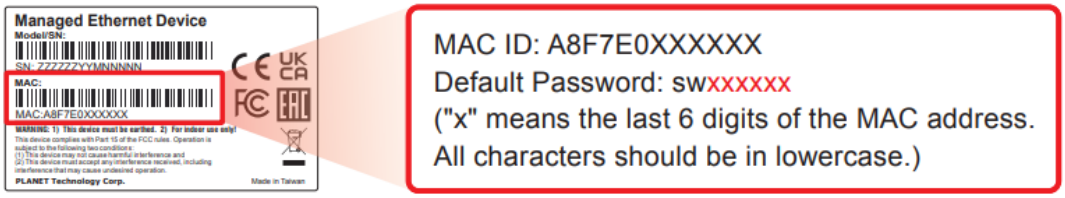


Figure 4-3: MAC ID Label

- Enter the default username and password, then set a new password according to the rule-based prompt and confirm it.

Figure 4-4: 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 sections.
  1. For security reason, please change and memorize the new pass-word after this first setup.
  2. Accept command in lowercase or uppercase letter under console inter-face.

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-vlanif-1)# ip address 192.168.0.100 255.255.255.0
```

- The previous command would apply the following settings for the Managed Switch.
  - **IPv4 Address:** 192.168.0.100
  - **Subnet Mask:** 255.255.255.0

```
DCS-7342-48Y8C#con
DCS-7342-48Y8C#configure
  %Enter configuration commands.End with Ctrl+Z or command "quit" & "end"
DCS-7342-48Y8C(config)#inter
DCS-7342-48Y8C(config)#interface vlan 1
DCS-7342-48Y8C(config-vlanif-1)#ip
address                 binding                 dhcp
direct-route            ospf                    pim
pim-sm                  policy-based-route      rip
router                  vrrp                    vrrpv3
DCS-7342-48Y8C(config-vlanif-1)#ip add
DCS-7342-48Y8C(config-vlanif-1)#ip address 192.168.0.100 255.255.255.0
DCS-7342-48Y8C(config-vlanif-1)#
```

Figure 4-5: 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”.
    2. The screen displays the current IP address, subnet mask and gateway as shown in Figure 4-6.

```
DCS-7342-32C2X#config
  %Enter configuration commands.End with Ctrl+Z or command "quit" & "end"
DCS-7342-32C2X(config)#interface vlan 1
DCS-7342-32C2X(config-vlanif-1)#ip address 192.168.0.100 255.255.255.0
DCS-7342-32C2X(config-vlanif-1)#
DCS-7342-32C2X(config)#show ip inter
DCS-7342-32C2X(config)#show ip interface
  The total number of Ip address: 2
  Ip-Address          Interface           IPIndex   State(a/o)     Role        Type        Vpn-instance
  127.0.0.1/8         loopback0           1         up/up          primary     auto        N/A
  192.168.0.100/24    vlan1               2         up/down        primary     static      N/A
DCS-7342-32C2X(config)#
```

Figure 4-6: 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.
  If you are not familiar with console command or the related parameter, enter “help” anytime in console to get the help description.

Setting 25G for 10G SFP+ Port

For DCS-7342-48Y8C only.

The Managed Switch supports both 25G SFP28 and 10G SFP+ transceivers by manual setting and the default SFP28 port speed is set to 25Gbps. For example, to establish the fiber connection with 10G SFP+ transceiver in the 10gigaethernet 1/0/1, the following command configuration is required:

```
DCS-7342-48Y8C#con
DCS-7342-48Y8C#configure
  %Enter configuration commands.End with Ctrl+Z or command "quit" & "end"
DCS-7342-48Y8C(config)#port mode 10g
DCS-7342-48Y8C(config)#port mode 10gi inter
DCS-7342-48Y8C(config)#port mode 10gi interface 25g
DCS-7342-48Y8C(config)#port mode 10gi interface 25gigaethernet 1/0/1
 Warning: This operation will delete current port(s) and create new port(s),
 and all configurations of the current port(s) will be cleared.
 Continue? (y/n) [n]y
DCS-7342-48Y8C(config)#
DCS-7342-48Y8C(config)#
```

Figure 4-7: Setting 10GBASE-X Screen

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. Before Configuring the port, ensure that the 40G QSFP fiber is connected. For example, to establish the fiber connection with 40GBASE-X SFP transceiver in the 100gigaethernet 1/0/1, the following command configuration is required:

```
DCS-7342-48Y8C#con
DCS-7342-48Y8C#configure
  %Enter configuration commands.End with Ctrl+Z or command "quit" & "end"
DCS-7342-48Y8C(config)#inter
DCS-7342-48Y8C(config)#interface 100
DCS-7342-48Y8C(config)#interface 100gigaethernet 1/1/1
DCS-7342-48Y8C(config-100ge1/1/1)#spe
DCS-7342-48Y8C(config-100ge1/1/1)#speed 40000
DCS-7342-48Y8C(config-100ge1/1/1)#
```

Figure 4-8: Setting 40GBASE-X Screen

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 file” command, so that the running configuration sequence becomes the start-up configuration file, which is called configuration save.

```
DCS-7342-48Y8C#write file
  This will save the configuration in the flash memory.
  Are you sure?(y/n) [y]y

  Building configuration,please wait for a moment.....
  [OK]
DCS-7342-48Y8C#
```

Figure 4-9: Write Screen

SSH Login

- The Managed Switch also supports SSHv2 for remote management. The switch asks for user name and password for remote login when using SSHv2 client software; please use the default username and password. Refer to Figure 4-3 to determine your initial login password.
  - **Default IP address**: 192.168.0.100
  - **Username:** admin
  - **Password:** sw + the last 6 characters of the MAC ID in lowercase

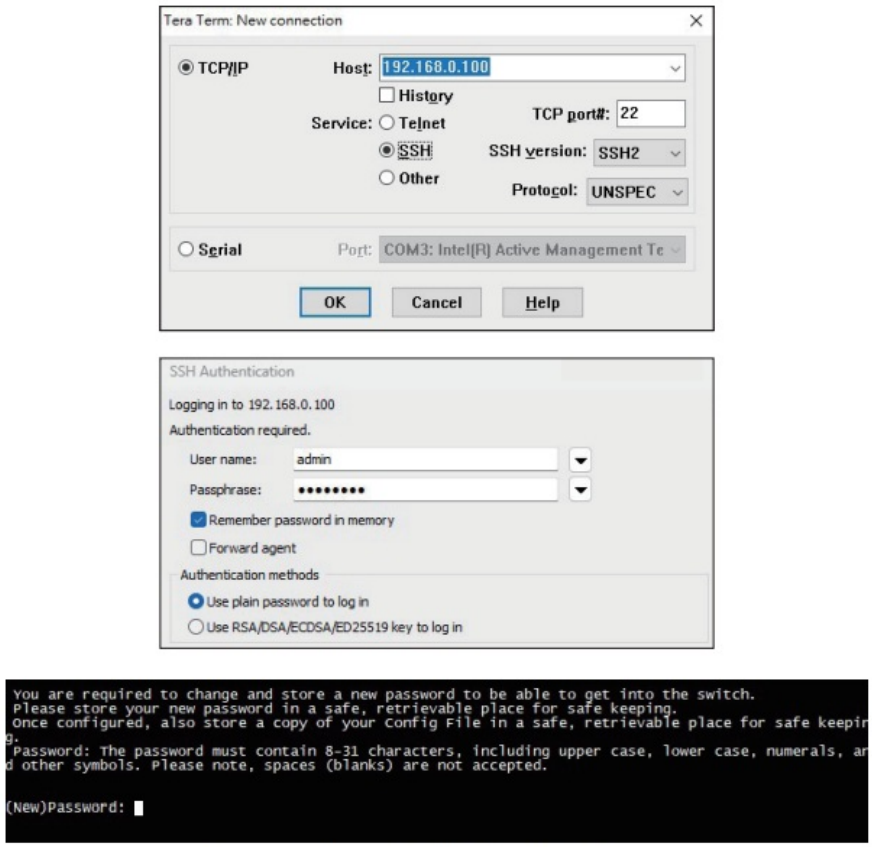


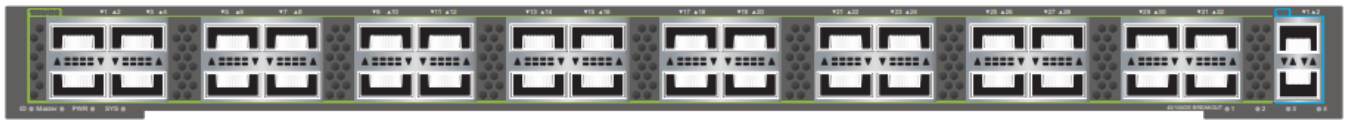
Figure 5-1: Managed Switch SSHv2 Login Screen

- The user can now enter commands to manage the Managed Switch. For a detailed description of the commands, please refer to the following chapters.
  For security reason, please change and memorize the new password after this first setup.

LED Indicators

DCS-7342-32C2X

Front Panel:



LED	Color	Function
ID	Green	**Off:** ID light is not activated by default.
		On: Used for on-site identification, controlled by maintenance personnel to turn the ID light on and off.
Master	Green	**Off:** Device is not the stack master.
		On: Device is the stack master or not stacked.
PWR	Green	**Off:** Device is not powered on.
		On: Device power is working normally.
SYS	Green	**Off:** Device is not running.
		Fast Blinking: Device initialization is in progress. **Slow Blinking:** Device is running normally.
100/40GE BREAKOUT	Green	For 100GE interface, it supports non-rate-splitting and rate-splitting. Non-rate-splitting mode: **Off:** 100GE interface operates in 100GE mode, not split into four 25GE interfaces. **On:** One of the 100GE interfaces operates in 25GE mode, split into four 25GE interfaces. Sequence lights 1/2/3/4 are on with each indicating the status of the corresponding 25GE interface. Rate-splitting mode to 40GE: **Off:** 40GE interface operates in 40GE mode, not split into four 10GE interfaces. **On:** One of the 40GE interfaces operates in 10GE mode, split into four 10GE interfaces. Sequence lights 1/2/3/4 are on with each indicating the status of the corresponding 10GE interface.

DCS-7342-48Y8C

Front Panel:

LED Definition

LED	Color	Function
ID	Green	**Off:** ID light is not activated by default.
		On: Used for on-site indentification, controlled by maintenance personnel to turn the ID light on and off.
Master	Green	**Off:** Device is not the stack master.
		On: Device is the stack master or not stacked.
PWR	Green	**Off:** Device is not powered on.
		On: Device power is working normally.
SYS	Green	**Off:** Device is not running.
		Fast Blinking: Device initialization is in progress. **Slow Blinking:** Device is running normally.

100/40GE BREAKOUT	Green	For 100GE interface, it supports non-rate-splitting and rate-splitting. Non-rate-splitting mode: **Off:** 100GE interface operates in 100GE mode, not split into four 25GE interfaces. **On:** One of the 100GE interfaces operates in 25GE mode, split into four 25GE interfaces. Sequence lights 1/2/3/4 are on with each indicating the status of the corresponding 25GE interface. Rate-splitting mode to 40GE: **Off:** 40GE interface operates in 40GE mode, not split into four 10GE interfaces. **On:** One of the 40GE interfaces operates in 10GE mode, split into four 10GE interfaces. Sequence lights 1/2/3/4 are on with each indicating the status of the corresponding 10GE interface.

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 support team.
PLANET online FAQs:

- **https://www.planet.com.tw/en/support/faq**
- **Support team mail address: support@planet.com.tw**
- DCS-7342-32C2X/DCS-7342-48Y8C User's Manual **https://www.planet.com.tw/en/support/download.php?view=3&key=DCS-7342#list**

Documents / Resources

	PLANET DCS-7342-32C2X Managed Data Center Switch [pdf] Installation Guide DCS-7342-32C2X, DCS-7342-48Y8C, DCS-7342-32C2X Managed Data Center Switch, DCS-7342-32C2X, Managed Data Center Switch, Data Center Switch, Center Switch, Switch

References

- FAQ - PLANET Technology
- User Manual