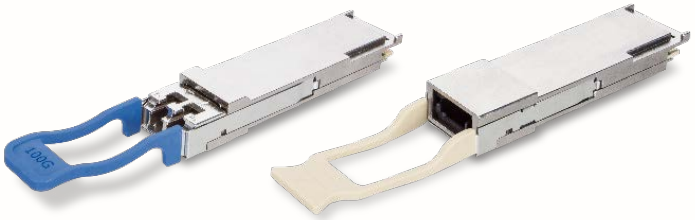
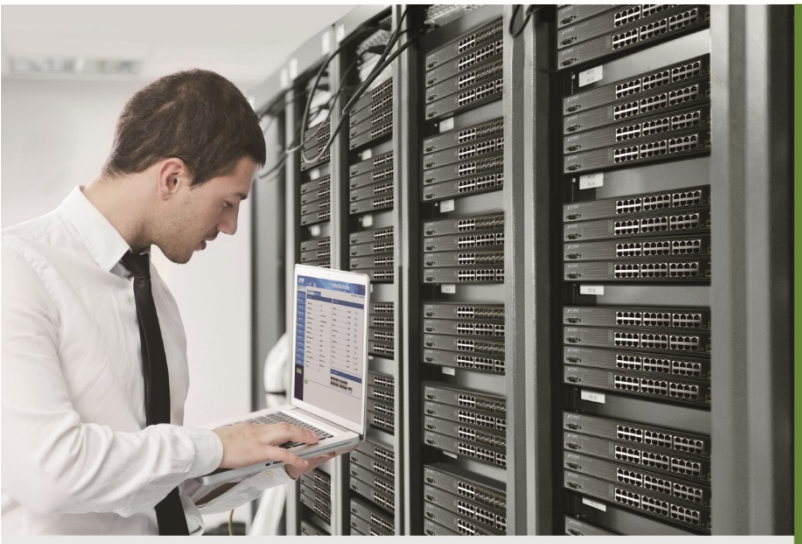
PLANET
Networking & Communication

User's Manual



100GBASE-SR4 QSFP28 Fiber Transceiver

- QSFP-100G-SR4/QSFP-100G-LR4



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If you find information in this manual that is incorrect, misleading, or incomplete, we would appreciate your comments and suggestions.

FCC Warning

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the Instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CE Mark Warning

This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

WEEE Warning

To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.

Revision

User's Manual of PLANET QSFP28 Transceiver
For Models: QSFP-100G-SR4/QSFP-100G-LR4
Rev: 1.0 (November, 2018)

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1. Overview

Thank you for purchasing PLANET QSFP28 Transceiver which includes the Ethernet module of the QSFP-100G-SR4 and QSFP-100G-LR4.

The QSFP28 100G Ethernet modules can be installed in PLANET switch products with 100G QSFP28 interface. The QSFP28 transceivers can be extended from a distance of 100m (multi-mode, MPO) to up to 10km (single-mode, LC).

2. Checklist

Your QSFP28 Package should contain the following items:

⇨ The QSFP28 Transceiver Module x 1

If any item is missing or damaged, please consult the dealer from whom you purchased your QSFP28 100G Ethernet transceiver module.

3. Introduction and Model List

3-1 The QSFP-100G Series Ethernet Transceiver Module List

100G Ethernet Transceiver (100GBASE-SR4/LR4 QSFP28)

Model	DDM	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (nm)	Operating Temp.
QSFP-100G-SR4	YES	100G	MPO	Multi mode	70m(OM3) 100m(OM4)	850nm	0 ~ 70℃
QSFP-100G-LR4	YES	100G	LC	Single mode	10km	1310nm	0 ~ 70℃

*Note: The attenuation coefficient that mentioned in follow chapters is for reference only.

Attenuation coefficient	Wavelength region	Typical link value
	1294.53nm-1310.19nm	0.5 dB/km

SFP Model / Physical Fiber Cable Length "n" km	QSFP-100G-LR4
10＜n＜20	3 dB
20＜n＜40	--

4. Installing QSFP28 Transceiver Module

4-1 Installing the QSFP28 Ethernet Transceiver Module

Please follow these steps to install the QSFP28 Ethernet transceiver module:

1. Power on the Switch and place the Switch on a flat surface. Install the new QSFP28 Ethernet transceiver module by inserting it into the slot and sliding it in until it stops (See **Figure 1**). Press it firmly until you hear the module snap into place. Never force, twist or bend the QSFP28 Ethernet transceiver module. The QSFP28 Ethernet transceiver module slides in smoothly and the Switch will automatically detect the new module.

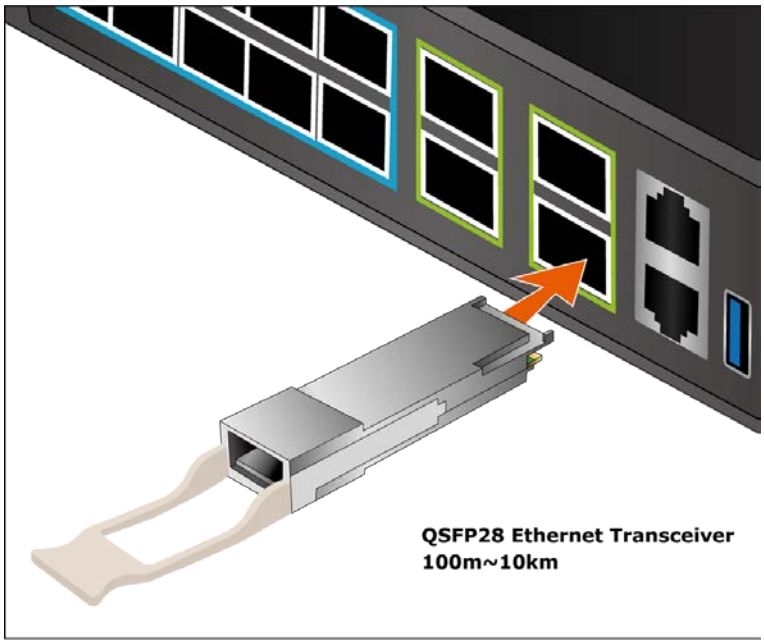


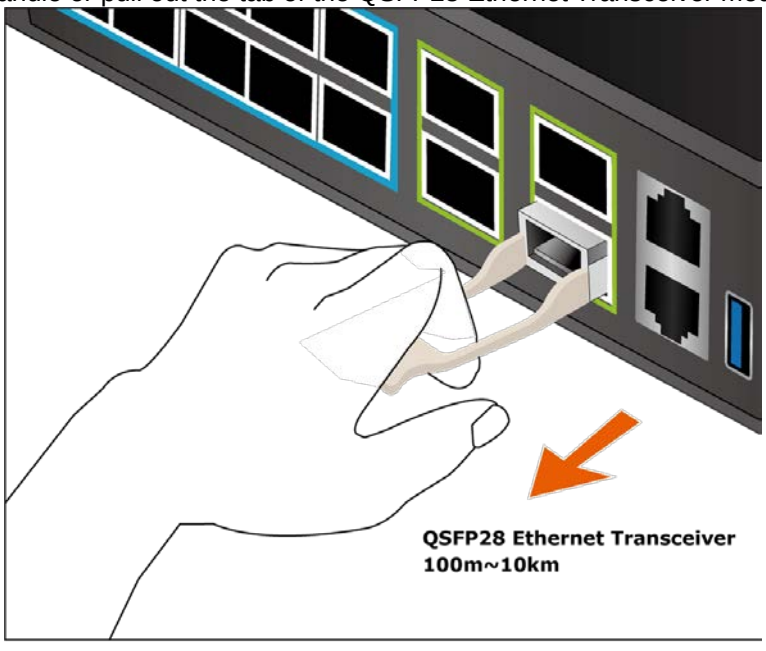
Figure 1: Inserting the QSFP28 Ethernet Transceiver Module

2. After the Fiber connection is done successfully, check the LEDs to verify whether there is a link and a proper connection at the port.

Please refer to the user's manual for more about the Switch or module's management.

4-2 Removing the QSFP28 Ethernet Transceiver Module

1. Make sure there is no network activity by consulting or checking with the network administrator.
2. Remove the Fiber Optic Cable gently.
3. Turn the handle or pull out the tab of the QSFP28 Ethernet Transceiver module gently.



WARNING	Never pull out the QSFP28 Ethernet Transceiver module without pulling the handle or the push bolts on the module. Directly pulling out the QSFP28 Ethernet Transceiver module would damage the QSFP28 Ethernet Transceiver module.

Appendix A

A.1 Fiber Optic Cable Connection Parameters

The wiring details are shown below:

■ **Fiber Optic Patch Cables:**

Standard	Fiber Type	Cable Specifications
100GBASE-SR4	Multi-mode	50/125μm
100GBASE-LR4	Single mode	9/125μm

Safety Notice

Fiber optic SFP modules are equipped with a Class 1 laser, which emits invisible radiation. Read the following safety warnings carefully:

Class 1 Laser Product
Complies with FDA Regulation 21 CFR 1040.10 and 1040.11

Class 1 radiation is present when the device or system is powered up.

Only trained and qualified personnel should be allowed to install or replace these modules.