

Is the SFP optical module a PC or an APC



Article Overview

Standard SFP optical modules are typically PC or UPC, not APC.

SFP (Small Form-factor Pluggable) optical modules generally have flat or slightly curved end faces, making them compatible with PC (Physical Contact) or UPC (Ultra Physical Contact) fiber connectors. The PC connector features a slightly curved polish to reduce air gaps and achieve a return loss of about -40 dB, while UPC is an improved version with a higher-quality polish and return loss around -50 dB. Both PC and UPC connectors can be used interchangeably with SFP modules without causing damage. In contrast, APC (Angled Physical Contact) connectors have an 8-degree angled ferrule designed to minimize back reflection, achieving a return loss of -60 dB or better. Because of this angled design, APC connectors cannot be mated with standard SFP modules, which have flat ports. Attempting to connect an APC fiber to a standard SFP module can cause misalignment, increased insertion loss, and potential damage to the transceiver interface. APC SFP modules do exist, but they are specialized for applications requiring low back reflection and high signal stability, such as PON, FTTH, or long-haul single-mode fiber networks. These modules integrate an APC connector directly into the SFP form factor, unlike standard SFPs which are designed for PC or UPC connections. Key takeaway: For typical SFP optical modules, use PC or UPC fiber connectors. Only use APC connectors with SFP modules specifically designed for APC interfaces to avoid network issues or hardware damage.

Article Content

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Compatibility between SFP optical modules and fiber optic jumpers

Although SFP optical modules can be connected with PC and UPC optical fiber jumpers, in order to ensure the

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What Is an SFP Optical Module? Guide | PHILISUN

Learn SFP optical module types, speeds, reach, fiber connectors, coding and compatibility checks for network equipment.

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Small Form-factor Pluggable

SFP modules that use SC fiber connectors don't always indicate whether they use SC/APC (angled) or SC/UPC (ultra polished)

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Fiber SFP Module Compatibility with APC, UPC, PC

This means APC should not be mated with UPC or PC. If someone does that, it will destroy the connectors. Plus, it's not

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How to tell is SFP needs LC/UPC or LC/APC : r/FiberOptics

How to tell is SFP needs LC/UPC or LC/APC Hi, I have some SFP 1.25Gbps pairs WDM single mode with LC connectors but can't

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What is the SFP Module? 2024 Best SFP Transceiver Guide

An SFP module is a small form factor pluggable optical transceiver that fits into the SFP port of the networking switch or other device.

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What is an SFP Module and How Does it Power Your Network?

What is an SFP Module An SFP (Small Form-factor Pluggable) module is a compact, hot-pluggable optical transceiver

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SFP Modules Aren't All the Same—How to Choose Wisely

SFP modules may be small, but their role in network performance is critical. By paying close attention to compatibility,

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SFP Small Form-Factor Pluggable Transceiver: Complete Guide

Through this guide, you will learn the essential functions of SFP transceivers, understand the differences between

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Compatibility between SFP optical module and PC/APC/UPC fiber

Are SFP optical modules compatible with PC/APC/UPC fiber patch cords? Through the detailed introduction of this article, I believe

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PC, UPC or APC - Selecting the Right Fiber Connector

Future higher-speed passive optical networks and other WDM applications that will use higher wavelengths via

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Fiber SFP Module Compatibility With APC, UPC, PC

Plus, it's not recommended to use APC connectors in fiber SFP modules. Unless the transceiver module has stated clearly that the

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The Ultimate Guide to SFP Modules (2026): Types, Speeds

Confused by SFP vs SFP+? Read the definitive 2026 guide on SFP modules. We explain Single Mode vs Multimode, DDM

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What Is an SFP Module? — Complete Guide to SFP, SFP+ & SFP28

An SFP (Small Form-factor Pluggable) is a compact, hot-pluggable transceiver module that allows networking

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Optic Fiber Cables - Difference between UPC vs APC ...

UPC and PC connectors are generally used in Ethernet network equipment like fiber switch, and are compatible with most standard

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SC APC SFP Module Guide for Optical Network Selection

Unlike standard SFP transceivers with UPC connectors, these optical modules integrate angled physical contact (APC) interfaces to

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Cisco SFP Modules for Gigabit Ethernet Applications Data Sheet

This data sheet describes the benefits, specifications, and ordering information for the Cisco SFP Modules for Gigabit

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Ultimate Guide to SFP+ Modules: Types, Applications, and Selection

SFP+ transceiver modules are an advanced iteration of the Small Form-factor Pluggable (SFP) interfaces designed to

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APC vs UPC vs PC Fiber Connector, What is the Difference? (2026)

Most SFP modules support both UPC and PC connectors, but they do not support APC type connectors. Using APC

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Optical Transceiver Manufacturers | Discussion the problem of

How to choose PC/APC/UPC fiber patch cord correctly for SFP optical module□ As we known, SFP optical modules have two

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What Is an SFP Module? Types, Uses & Compatibility (2025)

Learn what an SFP module is, how SFP transceivers work, common types (SX/LX/SFP+), single-mode vs multimode, and how to

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What is SFP Module and How to Choose it□

Ethernet SFP Module: What Is It? Ethernet SFP module, known for its compact, small form-factor pluggable design,

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