

Connecting a GPON optical module to a soft router



Overview

In this video, I will show you how I replace the ISP provided ONU/ONT with my own SFP GPON module (GPON Stick) and configured it on OpenWRT. This can also be applied for other type of PON, such as EPON. moreGPON replaces the traditional three-tier Ethernet design with a two-tier optic network which eliminates access and distribution Ethernet switches with passive optical devices. Optical Distribution Network (ODN) - The physical fibre and optical. Huawei POL solution is a LAN solution based on passive optical network (PON) technology. It features fast, simple, and open networking, and is the first choice for LAN solutions. PON is a point-to-multipoint (P2MP) network. [html](#) Read this thread and all your questions will be answered: For more info from kernel, do this before inserting sfp: `echo`. This post covers how: a Ubiquiti UF-Instant SFP GPON transceiver, UART access, direct flash via U-Boot, and GPON spoofing to make Entel's OLT accept the stick as if it were the original Huawei ONT. A single faulty ONU may trigger a PON-wide disruption, impacting multiple subscribers on the same. My internet connection is a FTTP GPON which my ISP provided their own cheap bulky router which I wanted to replace.



Article Content

Jul 10, 2026

Banana BPI-R4 + Compatible Fiber Optic Module with ISP Provider

First confirm that ISP is using GPON. Second, if they are using GPON you need to confirm how they authenticate. Most ISPs would just require the serial number.

Dec 19, 2025

Replace ISP ONT/ONU with PON Stick (SFP Module)

In this video, I will show you how I replace the ISP provided ONU/ONT with my own SFP GPON module (GPON Stick) and configured it on OpenWRT.

Dec 29, 2025

How to Connect Fiber Optic Cable to Router: A Step-by-Step Guide

However, setting up a fiber optic connection to your router can seem daunting if you're unfamiliar with the process. In this guide, we'll walk you through how to connect a fiber optic cable to ...

Aug 26, 2025

Understand GPON Technology

This document describes the Gigabit Passive Optical Network (GPON) technology and how it functions.

Nov 06, 2025

Use SFP module for incoming internet connection

It is possible to use Deco BE85+PON ONU Stick to create a direct connection to a GPON network. However, the PON ONU Stick requires strict compatibility with the ISP GPON network.

May 19, 2026

Example for Connecting an AP to a GPON Network

A GPON optical module is installed on an AP, so the AP is regarded as an ONU. The ONU is connected to the OLT through the optical splitter and optical fiber, and the OLT terminates ...

Sep 21, 2025

🦋 How to Connect Your Router Directly to Fiber Without Your ISP's ...

This post covers how: a Ubiquiti UF-Instant SFP GPON transceiver, UART access, direct flash via U-Boot, and GPON spoofing to make Entel's OLT accept the stick as if it were the original ...

Mar 29, 2026

How To Set Up A Gpon Network

In summary, the GPON network is composed of the GPON OLT, GPON OLT C+ module, GPON ONT/ONU with an integrated router, and the optical splitter. These components work together ...

Mar 24, 2026

Recommendation of OpenWRT compatible router with an SC-P ...

You raise a really interesting question - is there a GPON ONT with support for OpenWRT? Unfortunately, the answer is no - it seems that most ONTs are super proprietary; worse, most need ...

Contact Us

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