

# Passive Optical Network Unit Functional Diagram



## Overview

View the TI Optical network terminal unit (ONT) block diagram, product recommendations, reference designs and start designing. PON is short for Passive Optical Network, a mainstream fixed-line access technology that enables simultaneous access for multiple users over a single optical fiber. It has been deployed on a large scale in China since 2006, expanding from initial residential and commercial user access to large. This document describes the Gigabit Passive Optical Network (GPON) technology and how it functions. There are no specific requirements for this document. This document is not restricted to specific software and hardware versions. In practice, PONs are typically used for the last mile between Internet service providers (ISP) and their customers. Network designers and ISPs aiming for efficiency must focus on effective passive optical network design, with careful consideration of PON architecture planning and splitter placement.

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Passive Optical Networks (PONs) are essential in optical communications to meet the increasing demand for network capacity and connected users, ensuring reliable and adaptable connections for...



Our architecture is promising for fibre-based and free-space optical fronthaul, bringing full-band and coherent-lite access networks into reach.



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A PON consists of a central office node, called an optical line terminal (OLT), one or more user nodes, called optical network units (ONUs) or optical network terminals (ONTs), and the fibers and splitters ...



This document provides an overview of Passive Optical Networks (PONs). It describes the key components of a PON including the Optical Line Terminal (OLT), optical splitters and combiners, and ...



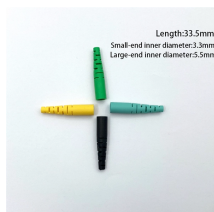
OLT Functional Blocks  
 ONU/OLT Functional Blocks  
 Traffic Mapping - Ethernet  
 OMC  
 Type A  
 Type B  
 C  
 An OLT consists of three major parts: 1. Service port interface function - Provides translation between service interfaces and the TC frame interface of the PON section. 2. Cross-connect function - Provides a communication path between the PON shell and the Service shell, as well as cross-connect functionality. 3. Optical Distribution Network (ODN) ...  
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The PON technology is based on the ITU-T G.984 standard. PON transmits Ethernet, Asynchronous Transfer Mode (ATM), and Time Division Multiplexing (TDM) traffic. It consists of mainly two active ...



A passive optical network is a fiber-based network architecture that uses unpowered (passive) splitters to enable a single optical fiber to serve multiple endpoints.



PON is short for Passive Optical Network, a mainstream fixed-line access technology that enables simultaneous access for multiple users over a single optical fiber.



Comprehensive guide to Passive Optical Networks (PON), covering OLT, ODN, ONU/ONT, GPON/XGS-PON/NG-PON2 standards, deployment strategies, and FTTH network ...

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