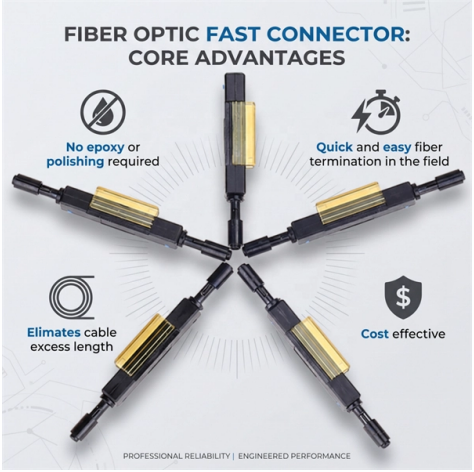
Wavelength of epon device



Overview

BPON, EPON, GEPON, and GPON have the same basic wavelength plan and use the 1490 nanometer (nm) wavelength for downstream traffic and 1310 nm wavelength for upstream traffic. 1550 nm is reserved for optional overlay services, typically RF (analog) video. 984 Gigabit-capable Passive Optical Networks (GPON, G-PON) standard, first defined in 2003. PON (Passive Optical Network), as an access network technology, can implement fiber optic to the home, satisfying the high-bandwidth requirement of the "last kilometer" in the access layer network. As a key player in the FTTH (Fiber to the Home) revolution, EPON enables cost-effective, scalable internet access by leveraging passive. This is hybrid PON approach, taking aspects of traditional TDM/TDMA PON and WDM PON. EPON ONUs need to have Wavelength Blocking Filters (WBF) to block future PON wavelengths (10G EPON, TWDM, etc). Wavelength plans have been labeled from A, B to Z (although not all characters were used). Maybe soon we need to find a writing system that has more than 26 characters The driving forces behind seeking higher-speed PON are often assumed as various IP video related applications – HD, 4K,8k, DVR. Wavelength: Downstream transmission typically uses a 1490nm wavelength (GPON standard) to avoid interference with upstream signals. Time Division Multiple Access (TDMA): Since multiple ONU/ONTs share the same fiber for upstream transmission, PON employs a TDMA mechanism to prevent signal.

Article Content

What is EPON (Ethernet passive optical network)

An EPON (Ethernet Passive Optical Network) is a fiber-optic telecommunications technology that provides broadband network access to end-customers. Its architecture implements a point-to

100G EPON Wavelength Plan

This contribution first discusses different network application scenarios for asymmetric/symmetric 25G and 100G EPON, cost structures, coexistence, and then proposes a balanced wavelength plan

Optical Wavelength Considerations for NG EPON

This information is being presented to help aid the NG EPON group to PON in considering fiber wavelength conflicts, service coexistence, and potential optical component economies of scale

10GEPON_WP_EA_from FC__Final_updated_V2d4

10G-EPON wavelengths are allocated with a specific goal of allowing coexistence with 1G-EPON and RF video (Figure 3) thereby enabling support of symmetric 10 Gb/s ONUs,

GPON vs EPON: Comparison of Passive Optical Network Technologies

In the ever-evolving landscape of telecommunications and broadband access, Passive Optical Networks (PONs) have emerged as a cornerstone technology for delivering high-speed

PowerPoint Presentation

Wavelength allocation plans for 1G-EPON, 10G-EPON, ITU-T PON, SCTE RFOG, and NGPON2; adapted from slide 4 from Wavelength Plan Analysis, Minghui Tao and Quian Liu, November 2014.

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