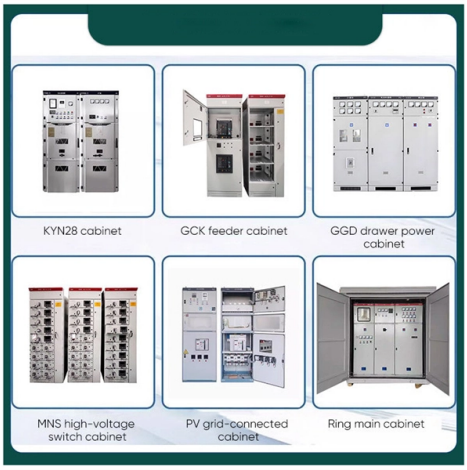
FTTH uses 19-inch chassis size parameters



Overview

This article explores how to deploy a scalable FTTH (Fiber to the Home) network using chassis OLT systems, covering technical considerations, deployment steps, and best practices.

Key Takeaways

FTTH chassis designed for 19-inch racks follow standardized width and rack unit heights, with slot configurations optimized for OLTs, service boards, and power modules. Standard 19-Inch Rack DimensionsA 19-inch rack is a standardized frame for mounting electronic equipment, where each module has a front panel width of 19 inches (482. 6 mm), including mounting ears for screws or bolts.

The height of equipment is measured in rack units (U), with 1U = 1. 75 inches (44. 45 mm).

Standard rack cabinets are typically 42U tall, though taller racks exist.

FTT

H chassis are designed to fit these racks, ensuring compatibility with telecom and data center infrastructure.

© 2026 CGWEB NETWORK INFRASTRUCTURE - All rights reserved

FTTH Chassis Examples

Fiberhome AN6000-17 OLT Chassis: Occupies 11U of vertical rack space in a 19-inch cabinet. Contains 21 slots: 17 for subscriber access boards, 2 for main control and switching boards (Active/Standby), and 2 for power interface modules. Supports high-density deployment, e.g., 16-port XGS-PON boards can provide 272 10G PON ports, serving tens of thousands of subscribers with standard optical split ratios.

Features a non-blocking multi-terabit backplane for high-speed switching and reduced signal degradation. ZXA10 C320 Chassis: Occupies 2U in a 19-inch rack. Includes 2 slots for main control boards and 2 slots for GPON/XG-PON service boards.

Equipped with a dedicated fan tray and side-to-side airflow for thermal management. High availability is ensured via dual control boards in Active/Standby configuration, providing seamless failover in under 50 milliseconds.

Key Design Considerations

Slot Configuration: Chassis are designed to separate control, service, and power modules for redundancy and scalability. Power Redundancy: Dual independent -48V DC feeds are common for carrier-grade reliability. Cooling: Intelligent fan trays and airflow design prevent hot spots, especially in sealed enclosures.

Backplane Design: Non-blocking, orthogonal backplanes reduce electromagnetic interference and maintain high throughput. SummaryFTTH 19-inch chassis are rack-mountable systems with standardized width (19 inches) and variable height in U units, optimized for high-density subscriber access, redundant control and power modules, and efficient thermal management. Examples like the AN6000-17 and ZXA10 C320 illustrate the range from compact 2U units to large 11U systems, supporting thousands of subscribers while maintaining carrier-grade reliability.

Article Content

FTTH using a 19-inch telecom chassis

This article explores how to deploy a scalable FTTH (Fiber to the Home) network using chassis OLT systems, covering technical considerations, deployment steps, and best practices.

ZXA10 C650 OLT 19inch Chassis: The Definitive Architecture and ...

The ZXA10 C650 OLT 19inch Chassis represents a triumph of telecom engineering, flawlessly bridging the gap between extreme port density and practical, edge-friendly dimensions.

19-Inch Rack Size and Dimensions Explained: The Complete Guide to ...

© 2026 CGWEB NETWORK INFRASTRUCTURE - All rights reserved

Discover the essential guide to 19-inch rack sizes and dimensions for servers and rackmount PCs. Learn about standards, specifications, and best practices today!

Unlocking Next-Generation FTTH: The Complete Technical Guide to

Whether scaling dense urban FTTH rollouts, aggregating MDU enterprise traffic, or providing ultra-low-latency backhaul for 5G small cells, this platform ensures maximum ROI by

Optical Access Architecture Reference Document: Huawei vs ZTE

distributed, ultra-broadband, converged, and virtualized features, supporting oth evolution of access networks fro 11U (19-inch) chassis (486.1 mm x 482.6 mm x 288.5 mm) and weighs less than kg,

Server Rack Sizes & Dimensions Guide 2026

Common server rack sizes are 19-inch width, heights like 42U or 48U, and depths from ~24″ to 48″. Choose size based on equipment type, cooling, space, and future growth.

ZTE C300 OLT Guide: Specs, Architecture & FTTH Deployment

The standard chassis spans 10 Rack Units (10U) in a standard 19-inch or 21-inch telecommunications rack. The system is entirely modular, meaning every card is hot-swappable,

FTTH Handbook – edition 9 | FTTH Council

Discover the updated FTTH Handbook, Edition 9 - your complete guide to fibre network planning, design, build, and operation, now with new insights on aerial rollouts.

How to Deploy a Scalable FTTH Network with Chassis OLT

Learn how to build a scalable FTTH network using chassis OLTs like the VSOL V5600X series. Discover deployment steps, redundancy, and best practices for ISPs.

MC-1610MR48 16-slot Managed Media Converter Chassis (DC power)

For powerfully advanced fiber-optic function and cost-effective solution, PLANET Managed Media Converter Chassis series, MC-1610MR and MC-1610MR48, provides 16 media converter slots and

Fiber to the Home (FTTH): A Comprehensive Guide

Fiber to the home (FTTH) is the use of fiber optic cable to directly connect to customer homes or premises, but what is FTTx, FTTP, FTTN, FTTC, and FTTB?

The Complete Guide to 19-Inch Industrial Chassis: Custom

© 2026 CGWEB NETWORK INFRASTRUCTURE - All rights reserved

Explore our complete guide to 19-inch industrial chassis. Discover durable, corrosion-resistant rack mount solutions in steel, aluminum, and custom finishes for your server, power supply,

FTTH Selection Guide

to serve them well. These cabinets, the cornerstone of our FTTH portfolio, enable quick subscriber turn-up and error-free, long-term management of your climbing take rates. See the following options to

19-inch rack

The 19 inch dimension includes the edges or ears that protrude from each side of the equipment, allowing the module to be fastened to the rack frame with screws or bolts. Common uses include

In-Depth Architecture of the FiberHome AN5516-01 and AN5116-06B OLT 19 ...

The FiberHome AN5516-01 and AN5116-06B 19-inch OLT chassis provide network operators with an unmatched combination of massive terabit-scale switching, stringent carrier-grade

Design and Implementation of a Practical FTTH Network

Design and implementation Al-Gehad FTTH network will be illustrate using the information that has been obtained from ITPC. Figure (6) shows the network topology logical diagram that will be used to

What is a 19 inch rack?

A 19 inch width is standard for servers and the racks that mount them. Learn how the EIA came to this conclusion and how it helps.

The Secrets of a 19-Inch Server Rack Design

Unveil the secrets behind 19-inch server rack design and maximize your server room space. Learn how to make the most of your server storage with

© 2026 CGWEB NETWORK INFRASTRUCTURE - All rights reserved

Contact Us

Continue your research online:

Website: https://cgweb.co.za
Technical inquiry: https://cgweb.co.za/project-enquiry.html

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

© 2026 CGWEB NETWORK INFRASTRUCTURE - All rights reserved