

FTTP Installation and Maintenance (FTTP)

Course Length	Two (2) days
Course Code	1202
Course Title:	FTTP Installation and Maintenance
Prerequisites	None, however a fiber fundamentals course is extremely helpful.
Course Overview:	This course is designed to introduce you to Fiber-to-the-Premises (FTTP) technology with an in-depth look at installation and maintenance of Fiber and FTTP equipment.

*** This course can be customized or combined to meet specific training needs ***

Course Outline

DAY 1

Industry Overview

- Why Fiber Optics
- FTTP Service Offerings – what is available
- FTTP Applications

FTTP Network Architecture

- The Passive Optical Network (PON)
- PON Architecture
- Types of PONs (BPON, APON, EPON, GPON)
- PON Equipment (OLT, splitter, FDH, MST, ONT, UPS)
- Connecting the Equipment – Fiber distribution, feeds and drops



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Basics of Fiber Optics

- Advantages of Fiber
- Basic Fiber systems – transmitter, receiver, optic cable
- Fiber Optic Cable – Core, cladding, jacket/buffer
- Types of Fiber – Multimode, Single Mode
- Fiber Connector Types
- Light power and attenuation – dB and dBm
- Fiber Wavelengths – 1310nm, 1490nm, 1550nm
- Loss Budgets
- Fiber impairments

Optical Testing

- What should be tested
- Types of Tests to perform – OL, ORL, OTDR
- Optical Test set – Hands-on demos

DAY 2

Optical Splicing

- Types of splices (Fusion, Mechanical)
- Intrinsic and Extrinsic factors that affect splicing
- Steps in performing a Splice
- Splicing – Hands-on

Cleaning and Maintaining Fiber Connectors

- Importance of cleaning the connectors
- Types of cleaning tools
- How to properly clean fiber connectors
- Fiber inspections – using a fiber scope

Installing FTTP Equipment

- OLT and office equipment
- Installing the splitter
- Installing the FDH and making jumper connections
- Installing the MST at the PED
- Verifying premise wiring and power
- Installing the ONT and power supply
- Installing and connecting the fiber drop
- Configuring network equipment and verify services

Review and Questions