

Hands-On

# Advanced OSP Fault /xDSL

Field Testing & Troubleshooting



## Course Description

This 2 day Advanced Hands-On course is designed to give experienced field technicians the opportunity to implement their skills troubleshooting voice and data circuits. This course is based in the field, for technicians to put into action the knowledge and hands-on skill sets gained from our OSP Fault Locating and xDSL courses on real world customer problems and support issues. This course will include troubleshooting outside plant cable, drops and testing and qualifying customer inside wire (which is becoming more and more of a top priority).

Emphasis of this course is placed on actual LIVE IN THE FIELD, PRACTICAL REAL-WORLD TESTING AND TROUBLES ISSUES. Technicians will be engaged to effectively use Test Equipment in the Field. Most technicians in the field today only utilize about 50 of this test instruments capabilities our goal is to have a 100 percent of their test instruments capabilities put to use. No sales pitch in this course, just Hands-On In-the-Field Testing & Troubleshooting.

Our SMEs have the field experience to find the answers to real live scenarios, providing students with a Real-World Experience.

## Students Will Learn

- 100 percent Extensive Hand-On Advanced Field Testing & Troubleshooting

## Target Audience

Contractors, union craftsman, outside plat technicians, installers, telecom managers and

anyone involved in installing, maintaining, testing, troubleshooting and repairing OSP cables.

## Prerequisites

A good understanding of Telecommunications, OSP Fault Location and xDSL Installation, Maintenance and Troubleshooting. This information can be obtained in our course(s) below

TeleCom Fundamentals

Hands-On OSP Fault Locating & Cable Troubleshooting

Hands-On xDSL-IMT (Installation, Maintenance & Troubleshooting)

## Course Outline

Module I: Faults

Resistive fault locate menu

- Identify resistive faults
- Locate resistive faults
  - shorts/grounds/crosses

Opens menu

- Capacitive unbalance

TDR

- High joints
- Load coils
- Bridge taps

## Module II: xDSL Qualification

### Turn-up Results

- Margin
- Capacity
- Max bit rate
- Capped bit rate

### Bits Graphic

Frequency spectrum

Bits per bin

Interferers

## Module III: CAT 5/6 Qualification & Testing

- Mapping
- BERT
- Estimated bit rate
- Testing

## Module IV: Field Troubleshooting

- Troubleshoot various xDSL loops
- Go through 10 step troubleshooting procedure
- Use menus previously covered to locate any faults
- Complete follow up tests to ensure customer satisfaction

## Module V: Summary

- Answer any questions the Technicians may have in regards to testing and troubleshooting procedures.

## Delivery Method

Instructor led with numerous Hands-On labs and exercises.

## Equipment Requirements

(This apply's to our hands-on courses only)

BTS always provides equipment to have a very successful Hands-On course. BTS also encourages all attendees to bring their own equipment to the course. This will provide attendees the opportunity to incorporate their own gear into the labs and gain valuable training using their specific equipment.

## Course Length

2 Days