

Certified Cabling Test Technician OptiFiber OTDR Course Overview (1 Day)

The Fluke Networks Certified Cabling Test Technician (CCTT) OptiFiber Course is a one day onsite event for up to 12 students. CCTT training is a great way to ensure you get the most out of your OptiFiber Certifying OTDR test equipment.

- **WHO:** The course is designed for enterprise network owners and contractors who currently own OptiFiber Certifying OTDRs. The class is conducted by a Fluke Networks training specialist.
- **WHY:** The CCTT course provides "expert" level training on the OptiFiber Certifying OTDR. When the specification or scope of work requires "certified" technicians on the job, the CCTT course meets and exceeds the requirement. After taking the CCTT course, the technician will be able to better utilize the dynamic capabilities of the OptiFiber Certifying OTDR, thus significantly increasing productivity in the field.
- **WHAT:** The CCTT course lasts for one day from 8:00am to 5:00pm. The class reviews the latest TIA standards and recommendations for optical fiber testing and then focuses exclusively on maximizing productivity with the OptiFiber instrument. There is extensive hands-on with the OptiFiber instrument throughout the class, including viewing and capturing endface images, using ChannelMap, and OTDR testing. At the end of the class, the students will take a certification exam. If desired, LinkWare software will be covered after the conclusion of the main course for those individuals that will use this data management and report generation program (typically project managers). Within three weeks after the class, Fluke Networks will mail CCTT certificates to the students.
This class qualifies for 7 BiCSi continuing education credits.
- **WHEN:** Due to the popularity of the CCTT program, onsite classes typically schedule 8 to 12 weeks in advance. Class dates are available on a first come, first served basis.
- **WHERE:** The CCTT course is available primarily as an "onsite" class at the customer's facility. The customer is responsible for providing the training room.
- **COST:** An all-inclusive "flat rate" price of \$3,500 USD per day (\$3,500 CDN) is valid for up to 12 students within the continental 48 States and southern Canada. For a full onsite class, this represents a cost of only \$292 per person. Please call for current pricing in Hawaii, Alaska, and the NW Territories. Contact David Gibbs at Fluke Networks (425.446.5912) or e-mail cctt_info@flukenetworks.com to obtain a quote and schedule a class.

Note: For smaller companies who cannot afford onsite training, open registration classes are offered a few times per year across the United States and charge on a "per person" basis. A list of open registration classes is at www.flukenetworks.com/ccttregistration.

Get more information on the CCTT program at www.flukenetworks.com/cctt.

Certified Cabling Test Technician OptiFiber OTDR Course Outline (1 Day)

I. Basics of Fiber Optics

- A. Wavelength of light*
- B. Light transmission in a fiber*
- C. Fiber types*
- D. Connector types*
- E. Safety considerations*

II. Fiber Cabling Infrastructure

- A. Cable Types*
- B. Network topologies (horizontal, backbone, centralized)*
- C. Network fiber elements (work area outlets, MDF/IDF/closets, consolidation points, links, patch cords)*

III. Emerging Fiber Trends

- A. Growth in fiber in networks*
- B. Trends with fiber in networks*

IV. Losses in Optical Fibers

- A. Optical power*
- B. Optical loss*
- C. Sources of optical loss*

V. Fiber Test Standards (including test limits)

- A. Fiber Installation Standards (examples)*
 - 1. TIA 568-B.1 and TIA 568-B.3
 - a) TIA 568-B Horizontal MM
 - b) TIA 568-B Backbone MM
 - 2. TIA TSB140 Tier 1 and Tier 2 Guidelines
- B. Fiber Application Standards (examples)*
 - a) IEEE 100Base-FX MM
 - b) IEEE 1000Base-SX MM

VI. Fiber Testing Solutions

- A. *Inspection tools*
- B. *Certification tools*
- C. *Multi-function testing tools*
- D. *Documentation*

VII. Fiber Infrastructure Testing & Certification

- A. *Continuity*
 - 1. How to check for continuity
 - 2. Demonstration of checking fiber continuity
 - 3. *Hands-on exercise: Checking Fiber Continuity*

- B. *Polarity*
 - 1. Basics of fiber polarity
 - 2. Demonstration of how to test fiber polarity
 - 3. *Hands-on exercise: Checking Fiber Polarity*

- C. *Introduction to OptiFiber*
 - Hands-on exercise: First Look at OptiFiber*

- D. *Endface Inspection of Fiber Connectors*
 - 1. Optical Fiber Endfaces
 - 2. How to inspect fiber endfaces
 - 3. Demonstration of OptiFiber video inspection option
 - 4. *Hands-on exercise: Fiber Inspector*

- E. *ChannelMap*
 - 1. ChannelMap Basics
 - 2. How to Use ChannelMap
 - 3. Demonstration of OptiFiber ChannelMap
 - 4. *Hands-on exercise: ChannelMap*

F. OTDR Testing and Analysis

1. OTDR basics
2. How to test with an OTDR
3. Demonstration of OptiFiber Auto OTDR
4. *First hands-on exercise: Auto OTDR, Part A*
5. *Second hands-on exercise: Auto OTDR, Part B*
6. *Third hands-on exercise: Auto OTDR, Part C*

G. OPTIONAL -- Optical Power Measurements

1. Optical power basics
2. How to make power measurements
3. Demonstration of OptiFiber power measurements
4. *Hands-on exercise: Optical Power Measurements*

H. OPTIONAL -- Loss/Length Testing and Analysis

1. Loss/Length basics
2. How to do loss/length testing
3. Demonstration of OptiFiber Smart Remote loss/length testing

VIII. Records Management and Report Generation

- A. Overview of LinkWare*
- B. LinkWare demonstration*

IX. Exam

Passing Grade earns

1. Fluke Networks CCTT Certificate
2. Seven BiCSi continuing education credits