

## Advanced Testing PDH (T-Carrier) and Datacom Testing

This two-day course covers T1, T3, STS-1 carrier and datacom technologies, as well as how to test circuits and access equipment with a Puma. The hands-on part of the training focuses on practical operation of the unit so as to put it to immediate use.

### Content

#### Part 1: Theory of PDH and Datacom Testing

- Overview of PDH and STS-1 technologies (framing, line coding, etc.)
- FDL, SSM/BOM and loopback techniques
- Basic datacom technology

#### Part 2: Testing Applications Using EXFO's Puma

- The Puma: connection panels, front panel and screens
- Connection techniques
- Menu systems
- Test modes
  - Telecom monitoring modes and BERT testing functions
  - Other basic test modes: voice/frequency, propagation delay and async testing
  - Optional test modes: frame relay, ISDN monitoring and call placement, etc.
- Software upgrade process

### Pre-Requisites

- Basic understanding of PDH telecom and datacom technology

### Methodology

The first part of this course consists of lectures using PowerPoint presentations and demonstrations, while the second part consists of specific hands-on test exercises using the Puma equipment.

**Typical Schedule** (can be modified to accommodate attendees' working schedule)

| ADVANCED TESTING PDH (T-CARRIER) AND DATACOM TESTING |  |
|--|--|
| Day 1  |  |
| 8:00 a.m. to 12:00 p.m.                              | <b>Part 1: Theory of PDH and Datacom Testing</b> <ul style="list-style-type: none"> <li>— Introduction to the Puma platform range</li> <li>— Overview of T1, T3 and STS-1 telecom and datacom technologies</li> </ul>  |
| 12:00 p.m. to 1:00 p.m.                              | <b>Lunch</b>   |
| 1:00 p.m. to 5:00 p.m.                               | <b>Part 2: Testing Applications Using EXFO's Puma</b> <ul style="list-style-type: none"> <li>— Using the Puma: rear connection panels, front panel controls and screen, navigating around the menus</li> <li>— Test mode selection and interface setup</li> <li>— Telecom monitoring test modes</li> <li>— Hands-on session</li> </ul> |
| Day 2  |  |
| 8:00 a.m. to 12:00 p.m.                              | <b>Part 2: Testing Applications Using EXFO's Puma (continued)</b> <ul style="list-style-type: none"> <li>— BERT testing, setup, result screens, features, telecom and datacom interfaces</li> <li>— BERT testing in T3 and STS-1 within framing structure</li> <li>— Hands-on session</li> </ul>                                       |
| 12:00 p.m. to 1:00 p.m.                              | <b>Lunch</b>   |
| 1:00 p.m. to 5:00 p.m.                               | <b>Part 2: Testing Applications Using EXFO's Puma (continued)</b> <ul style="list-style-type: none"> <li>— Voice/frequency testing</li> <li>— Propagation delay and other test modes</li> <li>— Software upgrade and installation options</li> <li>— Hands-on session</li> </ul>   |

**Documentation**

Attendees will receive a binder containing copies of presentations and other printed handouts, if applicable.

EXFO Corporate Headquarters > 400 Godin Avenue, Quebec City (Quebec) G1M 2K2 CANADA | Tel.: +1 418 683-0211 | Fax: +1 418 683-2170 | info@EXFO.com

|                        |   |  |                           | Toll-free: +1 800 663-3936 (USA and Canada)   <a href="http://www.EXFO.com">www.EXFO.com</a> |  |
|------------------------|---|--|---------------------------|--|--|
| EXFO America           | 3701 Plano Parkway, Suite 160   | Plano, TX 75075 USA                        | Tel.: +1 800 663-3936     | Fax: +1 972 836-0164   |  |
| EXFO Asia              | 151 Chin Swee Road, #03-29 Manhattan House  | SINGAPORE 169876                           | Tel.: +65 6333 8241       | Fax: +65 6333 8242   |  |
| EXFO China             | No. 88 Fuhua First Road<br>Central Tower, Room 801, Futian District                       | Shenzhen 518048 P. R. CHINA                | Tel.: +86 (755) 8203 2300 | Fax: +86 (755) 8203 2306   |  |
|                        | Beijing New Century Hotel Office Tower, Room 1754-1755<br>No. 6 Southern Capital Gym Road | Beijing 100044 P. R. CHINA                 | Tel.: +86 (10) 6849 2738  | Fax: +86 (10) 6849 2662  |  |
| EXFO Europe            | Omega Enterprise Park, Electron Way   | Chandlers Ford, Hampshire S053 4SE ENGLAND | Tel.: +44 2380 246810     | Fax: +44 2380 246801   |  |
| EXFO Service Assurance | 285 Mill Road   | Chelmsford, MA 01824 USA                   | Tel.: +1 978 367-5600     | Fax: +1 978 367-5700   |  |