

## Introduction to ATS-QSIG Testing

This one-day course covers E1 technology and ATS-QSIG carried on 64K G.703, as well as how to test ATS-QSIG on VCS 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 E1 Technology and ATS-QSIG

- Overview of E1 technology
- ECMA ATS-QSIG and G.703 co-directional interface

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

- The Puma: connection panels, front panel and screens
- Connection techniques
- Menu systems
- Test modes
- E1 monitoring mode and BERT testing functions
- Co-directional interface and ATS-QSIG test modes
- 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 E1 PDH telecom 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)

INTRODUCTION TO ATS-QSIG TESTING	
<b>8:00 a.m. to 12:00 p.m.</b>	<p><b>Part 1: Theory of E1 Technology and ATS-QSIG</b></p> <ul style="list-style-type: none"> <li>— E1 telecom technology</li> <li>— Puma platform range</li> </ul> <p><b>Part 2: Testing Applications Using EXFO's Puma</b></p> <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>— E1 monitor test mode</li> <li>— BERT testing, setup, result screens, features,</li> <li>— G.703 co-directional testing and ECMA 253 mapping</li> <li>— Hands-on session</li> </ul>
<b>12:00 p.m. to 1:00 p.m.</b>	<b>Lunch</b>
<b>1:00 p.m. to 5:00 p.m.</b>	<p><b>Part 2: Testing Applications Using EXFO's Puma (continued)</b></p> <ul style="list-style-type: none"> <li>— ATS-QSIG testing, monitoring, call setup</li> <li>— VCS call testing</li> <li>— Voice/frequency testing and propagation delay testing</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) | [www.EXFO.com](http://www.EXFO.com)

<b>EXFO America</b>	3701 Plano Parkway, Suite 160	Plano, TX 75075 USA	Tel.: +1 800 663-3936	Fax: +1 972 836-0164
<b>EXFO Asia</b>	151 Chin Swee Road, #03-29 Manhattan House	SINGAPORE 169876	Tel.: +65 6333 8241	Fax: +65 6333 8242
<b>EXFO China</b>	No. 88 Fuhua First Road 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 No. 6 Southern Capital Gym Road	Beijing 100044 P. R. CHINA	Tel.: +86 (10) 6849 2738	Fax: +86 (10) 6849 2662
<b>EXFO Europe</b>	Omega Enterprise Park, Electron Way	Chandlers Ford, Hampshire S053 4SE ENGLAND	Tel.: +44 2380 246810	Fax: +44 2380 246801
<b>EXFO Service Assurance</b>	285 Mill Road	Chelmsford, MA 01824 USA	Tel.: +1 978 367-5600	Fax: +1 978 367-5700