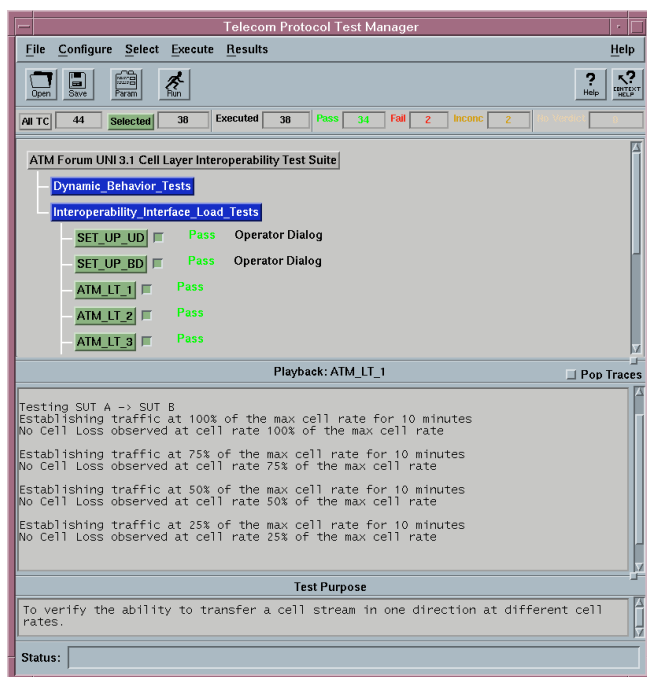# ATM Forum UNI 3.1 ATM Layer Interoperability Test Suite for Intermediate Systems

Agilent Technologies Broadband Series Test System

E7831A

The Test Manager test execution environment that runs on the Agilent broadband tester

Product Features

- Consists of 44 test cases in 8 test groups
- Fully automated stimulus- and-response test suite
- Flexible test case selection translates into either exhaustive testing or tailoring test case selection to suit the implementation
- Flexible data recording and playback capabilities built-in to the interface's trace window
- Clear verdict assignments for each test case run (such as PASS or FAIL)
- Test repeatability achieved by saving test session setups and results

The goal of Interoperability testing is to ensure that two intermediate systems exchange cells correctly. In addition, the interop test suite performs load and endurance testing at the UNI for ATM Intermediate Systems, e.g. ATM switches.

The ATM Forum Cell Layer Interoperability Executable Test Suite (ETS) is an implementation of the ATM Forum ATM Layer Interoperability Abstract Test Suite (ATS).

This ATS is based on the ATM Layer protocol as described in the ATM Forum ATM User-Network Interface (UNI) Specification, Version 3.1.

The ATS that AgilentTechnologies has submitted to the ATM Forum has been approved.

The test suite consists of 44 test cases in 8 test groups. See p.3 for more details.

ATM Network equipment manufacturers (NEMs) and network operators can expect to achieve higher confidence with regard to their implementation with this automated conformance test software.

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Key Features

- Fully automated stimulus-response test suite based on a recognized ATM Forum test matrix simplifies the verification process of ATM products at all phases of R&D. A complete, automated suite of tests in a single package can help reduce design cycle costs by producing results more quickly and with less operator intervention.

- Flexible test case selection translates into either exhaustive testing or tailoring test case selection to suit the implementation.

- Flexible data recording and playback capabilities built-in to the interface's trace window simplify the review of frames and cells transmitted. The operator can either pop traces to a separate window or keep track of overall results by generating variable-detail test campaign summary reports. The full exchange of messages produced by the test cases is recorded for later analysis.

- Clear verdict assignments for each test case run (such as PASS or FAIL) can help solve implementation errors whereas diagnostic information in test case traces can help pinpoint errors.

- Test repeatability is achieved by saving test session setups and results. This allows quick regression testing of product enhancements or bug fixes.

- Test campaigns are easily configured via interactive True/False or value setting questions for most PICS, PIXIT and other types of statements. Furthermore, the test suite follows an internationally recognized protocol testing standard methodology as defined in ISO 9646.

- Comprehensive multi-level on-line help is available to guide the user through many aspects of testing, with the help of hyperlinks, diagrams and definitions.

Applicable Standards

The following protocols are covered by the present test suite:

ATM Forum

ATM Forum UNI Specification Version 3.1.

Abstract Test Suite (ATS)

The ATS has been developed by Agilent and approved by the ATM Forum.

Areas Tested

Test Case Group Name	Test Cases
Cell Relay	6
VPI Interoperability	1
VCI Interoperability	1
PT Interoperability	8
Cell Loss	2
Unassigned Cells	2
OAM Cells	12
Interoperability Interface Load Tests	12
Total	44

Software Package Contents

- ETS (on CD-ROM)
- ETS User's Guide
- ATS Manual
- Release Notice
- Test Manager GUI (on CD-ROM)
- Test Manager User's Guide
- Test Manager Release Notice.
- Hardware key

Configuration & Use With Other BSTS Line Interfaces, Hardware Modules & Test Software

Hardware Requirements

- Agilent E4200/E4210 BSTS Base Platform
- 2 E4209 Cell Protocol Processors
- 2 compatible LIFs

Software Requirements

- Base System V3.01 or higher

Warranty & Support Options

Agilent Broadband Series Test System software and firmware products are supplied on transportable media such as disk, CD-ROM or integrated circuits. The warranty covers physical defects in the media, and defective media is replaced at no charge during the warranty period. When installed in an Agilent Broadband Series Test System, the software/firmware media has the same warranty period as the product.

This test software has no components requiring calibration.

Product Numbers

- **E7831A**   ATMF UNI 3.1 Interop. TS for Int. Sys. #101 Upgrade credit from E7821A
- **E7821A**   ATMF UNI 3.0 Interop. TS for Int. Sys.
- **E7823A**   ATMF UNI 3.0 Signal. CTS for Net. Side
- **E7833A/C, E7834A** ATM Forum UNI 3.1 Signalling Conformance Test Suites for network or terminal equipment
- **E7844A**   ATM Forum UNI 4.0 Core Signalling Conformance Test Suite for the Network Side
- **E7845A**   ATM Forum UNI 4.0 Core Signalling Conformance Test Suite for the User Side
- **E4214A**   UNI Signalling Test Software
- **E4214B**   Enhanced UNI Signalling Test Software

www.Agilent.com/comms/BSTS

Agilent Technologies Broadband Series Test System

The Agilent Technologies BSTS is the industry-standard ATM/BISDN test system for R&D engineering, product development, field trials and QA testing. The latest leading edge, innovative solutions help you lead the fast-packet revolution and reshape tomorrow's networks. It offers a wide range of applications:

- ATM traffic management and signalling
- Packet over SONET/SDH (POS)
- switch/router interworking and performance
- third generation wireless tesing
- complete, automated conformance testing

The BSTS is modular to grow with your testing needs.   Because we build all BSTS products without shortcuts according to full specifications, you'll catch problems other test equipment may not detect.

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