ATM Forum UNI 3.0 ATM Layer Conformance Test Suite for Intermediate Systems

Agilent Technologies Broadband Series Test System

E7820A

Product Features

- The cell layer test suite consists of 46 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)
- Comprehensive multi-level online help available

The Agilent Technologies E7820A ATM Forum UNI 3.0 ATM Layer Conformance Test Suite for Intermediate Systems is designed to test the cell layer function at the UNI for ATM Intermediate Systems, e.g. ATM switches.

Derived from the ATM Forum Testing Sub-Working Groups output. The ATM Forum Cell Layer Executable Test Suite (ETS) is an implementation of the ATM Forum ATM Layer Conformance Abstract Test Suite (ATS) for Intermediate Systems.

The Cell Layer test suite consists of 46 test cases in 8 test groups. See p.3 for more details.

The ATS allows two Points of Control and Observation (PCOs) corresponding to two CPP/LIF pairs on the Protocol Tester.

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

Abstract Test Suite (ATS)
ATM Cell Layer ATS for Intermediate Systems Ver.1.1 (ATM Forum / 94-0382R5). The ATS has been approved by the ATM Forum.

Areas Tested

<table>
<thead>
<tr>
<th>Test Case Group Name</th>
<th>Test Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>11</td>
</tr>
<tr>
<td>Cell Discrimination/VCI</td>
<td>1</td>
</tr>
<tr>
<td>Cell Discrimination/PTI</td>
<td>5</td>
</tr>
<tr>
<td>M Plane/Information Flows</td>
<td>3</td>
</tr>
<tr>
<td>M Plane/DAM Cell Format</td>
<td>8</td>
</tr>
<tr>
<td>M Plane/Fault Management/Alarm</td>
<td>9</td>
</tr>
<tr>
<td>Surveillance</td>
<td></td>
</tr>
<tr>
<td>M Plane/Fault Management/ Connectivity Verification/End to End Loopback</td>
<td>5</td>
</tr>
<tr>
<td>M Plane/Fault Management/Connectivity Verification/UNI Loopback</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
</tr>
</tbody>
</table>

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

- E7820A ATMF UNI 3.0 ATM Layer CTS for Int. Sys. #101 Upgrade credit from E7830A
- E7830A ATMF UNI 3.1 ATM Layer CTS 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
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 testing
- 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.

www.Agilent.com/comms/BSTS