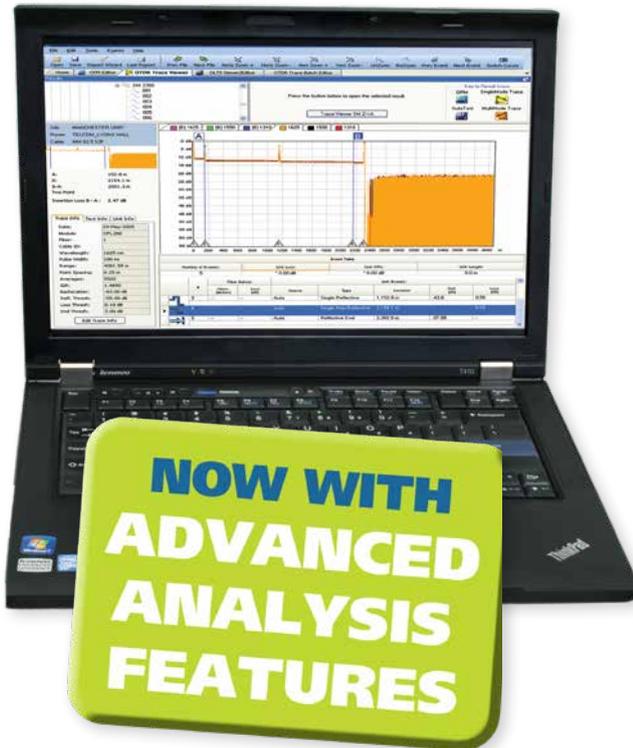


TRM® 2.0 Test Results Manager

All-In-One Comprehensive Analysis and Reporting Software



TRM 2.0 Basic Software Features

- Generate professional acceptance reports including:
 - OTDR traces
 - Certification loss results/OPM loss results
 - Connector Inspection Results
- Create certification results and apply Pass/Fail
- Document networks to reduce maintenance cost
- Increase productivity with powerful OTDR Batch editing
- Telcordia (GR-196 v1.1, SR-4731 issue 1 & 2) .SOR file formats

TRM 2.0 Advanced Software Features

- Macro/Microbend detection capabilities
 - Identify excess insertion loss due to poor installation and fibre handling
 - Detect insertion loss difference between wavelengths (≥ 0.2 dB)
- Automatic Bi-directional trace analysis including
 - Bi-directional trace information in the Event table
 - Reverse direction test data for each event
- Reports with Macrobend and Bi-directional trace averaging
- Export .SOR file contents to .CSV format

Software Licensing

- TRM 2.0 Basic software
- TRM 2.0 Advanced software
- TRM 2.0 Upgrade from Basic to Advanced software

Languages supported

- | | | | |
|-----------|--------------|-----------|------------|
| • English | • Italian | • Russian | • Chinese |
| • French | • Polish | • Spanish | • Japanese |
| • German | • Portuguese | • Turkish | |

TRM 2.0 Test Results Manager is Windows®-compatible, all-in-one analysis and comprehensive reporting software designed for use with AFL test and inspection products. Three software packages are available, TRM Basic software, TRM Advanced software and upgrade from TRM Basic to TRM Advanced software.

TRM 2.0 enables technicians to quickly view results, analyze or batch edit OTDR traces, and generate acceptance reports including OTDR, insertion loss and inspection results uploaded from AFL OTDRs, power meters, and connector inspection probes.

TRM 2.0 Advanced adds Macro/Microbend detection, automatic Bi-directional trace averaging, and .SOR file export to .CSV file format.

TRM 2.0 Basic and TRM 2.0 Advanced software allow integration of fibre inspection images from AFL's FOCIS Flex, FOCIS WiFi or DFS1 FiberScope to be included in customised test reports. Both versions support Bellcore/Telcordia .SOR file formats.

TRM® 2.0 Test Results Manager

All-In-One Comprehensive Analysis and Reporting Software

Test Results Manager 2.0 Basic Software

TRM 2.0 Basic software is included with all AFL OTDRs and OPM5 optical power meters and additional copies are available for purchase. TRM 2.0 Basic permits technicians to quickly view results, analyze OTDR traces, loss or certification results, batch edit OTDR traces and create acceptance reports conforming to industry guidelines. TRM 2.0 allows users to generate reports showing dual wavelength traces and event tables, end-face images with pass/fail results, event map and loss data for each fibre. Users can apply Pass/Fail thresholds to OTDR events and OLTS measurement; create and apply application rules per industry standards. The OTDR Batch editor allows user to edit and analyze multiple trace files simultaneously.

Test Results Manager 2.0 Advanced Software

TRM 2.x Advanced software includes all Basic software features and adds Bi-directional OTDR trace averaging, Macrobend detection, and export of .SOR files to .CSV file format.

Basic and Advanced Software Comparison

FEATURES	BASIC SOFTWARE	ADVANCED SOFTWARE
OTDR Trace Results	◆	◆
OLTS Viewer/Editor	◆	◆
OTDR Trace Batch Editor	◆	◆
Pre-defined Template for Reports	◆	◆
TRM Trace Comparison	◆	◆
FOCIS Flex Inspection Images and Pass/Fail Table	◆	◆
FOCIS WiFi and DFS1 Inspection Images	◆	◆
Telcordia (GR-196 v1.1, SR-4731 issue 1 & 2) .SOR file formats	◆	◆
Macrobend/Microbend		◆
Automatic Bi-directional OTDR Event Table		◆
Report with Bi-directional OTDR Trace/Event information		◆
Report with Macrobend/Microbend Events		◆
Export .SOR File Contents to .CSV File		◆
License Key	Required (Seat License)	

Ordering Information

TRM 2.0 Basic software is included with M-Series, C-Series, OFL-Series, FlexTester and FlexScan OTDRs and OPM5 (may be installed in up to 5 PCs). Users may download a full working version of TRM 2.0 (Basic plus Advanced features) and try it for 30 days. Once the evaluation period ends, users must purchase and install a TRM 2.0 Basic or Advanced software license to continue to use TRM. To order the TRM 2.0 software, contact your AFL Sales representative or AFL Customer Support. The TRM 2.0 Basic and Advanced software part numbers are listed below.

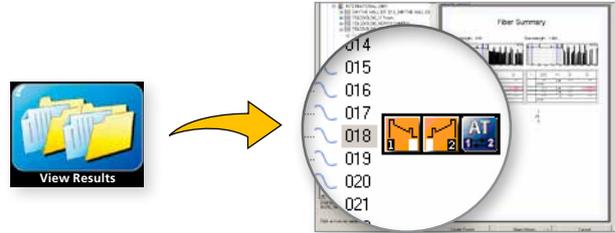
PART NUMBER	DESCRIPTION
TRM-00-0900PR	TRM 2.0 Basic Software (OTDR Trace/OLTS Viewer, Batch Editor and Reports)
TRM-00-0910PR	TRM 2.0 Advanced Software (Basic TRM plus Advanced Features and Reports)
TRM-00-0920PR	TRM 2.0 Upgrade from Basic to Advanced Software

TRM® 2.0 Test Results Manager

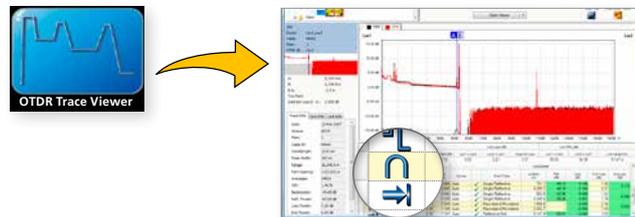
All-In-One Comprehensive Analysis and Reporting Software

Quickly and easily review test results

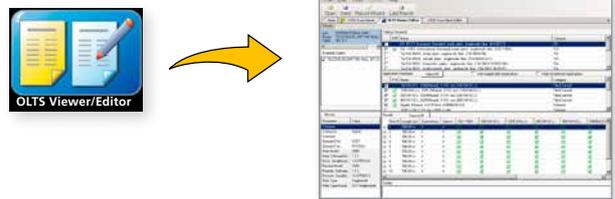
TRM's user friendly interface makes reviewing results easy. OTDR, Certification, Inspection, and OPM test results are indicated by specific icons to simplify selection of test results to review.



Easily Analyze OTDR, OLTS, and OPM results



Analyze OTDR traces by selecting the Trace Viewer icon. The automatic Bi-directional and Macrobend/Microbend features enhance OTDR analysis to eliminate splice loss measurement errors related to fibre mismatch and detect excessive bends or stress in the fibre.



Select the OLTS Viewer icon to analyze Auto Test and OPM results. Apply Pass/Fail Rules to Auto Test, OPM and OTDR test results.

Verify Fibres Meet Customer Requirements

Date of Test	Time	Pass/Fail	Length (m)	Att (dB)	Loss (dB/km)	Att (dB)	Loss (dB/km)
2012-11-20	4:38 PM	1	100.00	0.00	0.00	0.00	0.00
2012-11-20	4:47 PM	2	100.00	0.00	0.00	0.00	0.00
2012-11-20	4:57 PM	3	100.00	0.00	0.00	0.00	0.00
2012-11-20	4:59 PM	4	100.00	0.00	0.00	0.00	0.00
2012-11-20	4:59 PM	5	100.00	0.00	0.00	0.00	0.00
2012-11-20	4:59 PM	6	100.00	0.00	0.00	0.00	0.00
2012-11-20	4:59 PM	7	100.00	0.00	0.00	0.00	0.00
2012-11-20	4:59 PM	8	100.00	0.00	0.00	0.00	0.00
2012-11-20	4:59 PM	9	100.00	0.00	0.00	0.00	0.00
2012-11-20	4:59 PM	10	100.00	0.00	0.00	0.00	0.00
2012-11-20	4:59 PM	11	100.00	0.00	0.00	0.00	0.00
2012-11-20	4:59 PM	12	100.00	0.00	0.00	0.00	0.00
2012-11-20	4:59 PM	13	100.00	0.00	0.00	0.00	0.00
2012-11-20	4:59 PM	14	100.00	0.00	0.00	0.00	0.00
2012-11-20	4:59 PM	15	100.00	0.00	0.00	0.00	0.00
2012-11-20	4:59 PM	16	100.00	0.00	0.00	0.00	0.00
2012-11-20	4:59 PM	17	100.00	0.00	0.00	0.00	0.00
2012-11-20	4:59 PM	18	100.00	0.00	0.00	0.00	0.00
2012-11-20	4:59 PM	19	100.00	0.00	0.00	0.00	0.00
2012-11-20	4:59 PM	20	100.00	0.00	0.00	0.00	0.00
2012-11-20	4:59 PM	21	100.00	0.00	0.00	0.00	0.00
2012-11-20	4:59 PM	22	100.00	0.00	0.00	0.00	0.00
2012-11-20	4:59 PM	23	100.00	0.00	0.00	0.00	0.00
2012-11-20	4:59 PM	24	100.00	0.00	0.00	0.00	0.00

Apply rules to Auto Test and OPM data to ensure fibres meet required specifications. Pass/Fail indication for each test simplifies the review of test results.

Test to Industry Standards (ISO/TIA/EN), Application Rules (IEEE/ANSI), or create User Rules and User Application Rules. As new rules and applications develop, compare existing test results to the new rules, such as emerging Ethernet standards.

10GbE Fibre Certification

Supports industry-standard 10GbE IEEE 802.3ae specification using pre-configured 10GbE application rules. Produces detailed 10 GbE test report.

Parameter	Value	Unit	Limit	Pass/Fail
Length	100.00	m	100.00	Pass
Loss	0.00	dB	0.00	Pass
Attenuation	0.00	dB/km	0.00	Pass

TRM® 2.0 Test Results Manager

All-In-One Comprehensive Analysis and Reporting Software

Optimise Productivity with Powerful Batch Processing

Analysis

- Edit cables or groups of fibres in one batch session
- Modify event pass/fail thresholds:
Loss, ORL, Link Loss, Link ORL
- Add or remove Launch and Receive cables
- Adjust Launch and Receive cable length
- Adjust the location of the cursors

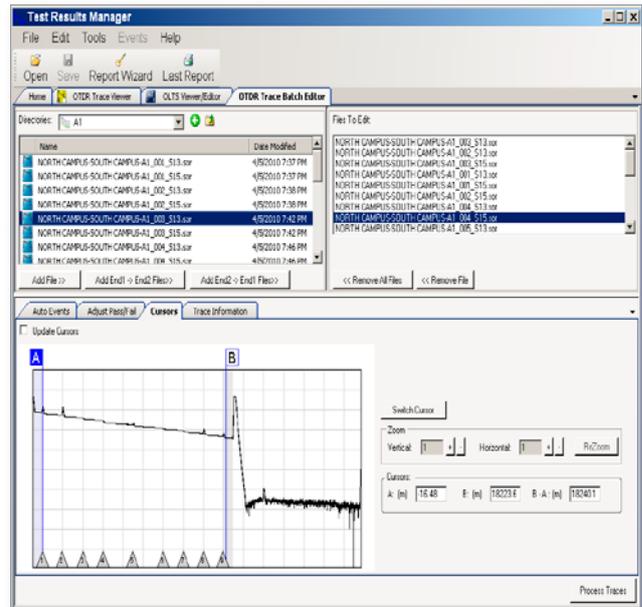
Documentation

Add and edit

- Trace File Names (Fibre Number, Cable ID, End 1, End 2, and Direction of test),
- Cable Information (Cable Type and GIR)
- Job Information (Company name, Main Operator, Second Operator, and Comment)

Reporting

- Generate professional reports by applying edits to a group of fibres for consistency of information and uniformity of results

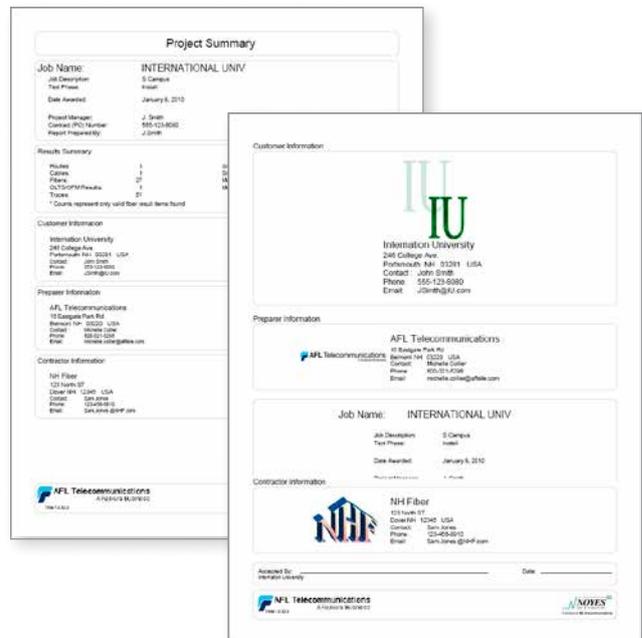


Create Professional Personalised Reports

Featuring the Report Wizard - a powerful tool for creating test reports, TRM allows users to generate personalised professional reports for customer's job acceptance.

Generated reports meet accepted industry documentation and can be personalised by customising cover pages to include customer's logos.

Create dedicated inspection, insertion loss and OTDR reports, as well as reports combining OTDR, power meter and inspection results.



TRM[®] 2.0 Test Results Manager

All-In-One Comprehensive Analysis and Reporting Software

Reporting Flexibility

- Create custom cover pages with logos for end-users, installers or consultants
- Generate OTDR summary table with thumbnail OTDR traces
- Combine OTDR trace(s), event table, loss measurements, connector end-face image and pass/fail results, and event map in a single report
- Export jobs to Zip files or save reports as PDF files

OTDR Cable Summary Page

OTDR cable summary page shows job information and test setup, Loss and ORL test results with or without thumbnails of OTDR traces (shown with Loss/ORL table and OTDR thumbnails).

OTDR Summary
Length 589.1 Meters

Fiber #	Loss(dB) End 1 → End 2		Loss(dB) End 2 → End 1		ORL(dB) End 1 → End 2		ORL(dB) End 2 → End 1	
	850M nm	1300M nm	850M nm	1300M nm	850M nm	1300M nm	850M nm	1300M nm
1	1.96	0.57	1.50	0.54	-26.12	-32.01	-26.00	-32.04
2	1.96	0.57	1.52	0.54	-26.04	-32.01	-26.17	-32.00
3	1.99	0.57	1.50	0.55	-26.08	-32.00	-26.19	-32.03
4	2.00	0.59	1.56	0.54	-26.12	-32.08	-26.09	-32.00
5	1.98	0.57	1.51	0.53	-26.16	-32.06	-26.01	-32.00
6	1.96	0.59	1.51	0.53	-26.09	-32.06	-26.10	-32.00

Fibre Detail Results Page

Fibre Detail Results page documents equipment used for testing, job information, test setup, cursor info and OTDR trace with Event map. OPM or Certification results and end-face image and pass/fail results may be included if available (as shown) with an overall Pass or Fail.

Certification Report Page

Certification report page shows overall Pass/Fail report 1 to standards (ISO shown) - with Pass/Fail 2 indicated for each fibre as well as User Rule 3 and Applications for which the fibres have passed.

Combine OTDR trace(s), event table, loss measurements, connector end-face image, and event map in a single report. Export jobs to Zip files or save reports as PDF files

Certification Results Cabling Standard: ISO 11801 (International Standard) all cables, 50 or 62.5 µm fiber. 1

Date of Test	Time	Fiber #	Loss (dB)	Length (m)	PIF	Headroom (dB)
			850 nm	1300 nm		
Jul 27, 2009	3:35 PM	1	E1-E2	2.95	1.95	0.63
			E2-E1	2.86	1.42	0.90
Jul 27, 2009	3:38 PM	2	E1-E2	2.72	1.84	0.86
			E2-E1	2.91	1.99	0.67
Jul 27, 2009	3:36 PM	3	E1-E2	2.53	1.90	1.05
			E2-E1	2.66	1.42	0.90
Jul 27, 2009	3:37 PM	4	E1-E2	2.72	1.85	0.86
			E2-E1	2.61	1.69	0.87
Jul 27, 2009	3:38 PM	5	E1-E2	2.56	1.83	1.03
			E2-E1	2.68	1.42	0.90
Jul 27, 2009	3:39 PM	6	E1-E2	2.72	1.96	0.86
			E2-E1	2.91	1.69	0.67

