

# T-BERD 8000 Portable Optical Network Tester

All your optical network testing needs covered in a single platform

## The power of one, performing the work of many

### A powerful unit

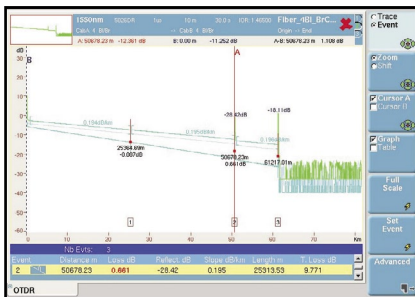
- Flexible scalable platform
- Industry-leading size and weight, e.g. platform + transport module < 15.4 lbs (7 kg)
- Interchangeable modules
- Generates test results in seconds
- Fully automatic testing
- Combination of several tests
- Remotely controlled (via Ethernet, Fiber)

### Fiber Characterization Testing

- Optical Time Domain Reflectometer (OTDR)
- Chromatic Dispersion (CD)
- Polarization Mode Dispersion (PMD)
- Attenuation Profile (AP)
- Loss testing

### OTDR Module

- More than 20 OTDR modules
- Combined wavelengths MM: 850/1300 SM: 1310/1383/1550/1625 nm
- Dynamic range 30 dB up to 50 dB



Pass/Fail OTDR analysis

### Transport Module

- All in one module for Full PDH/T-Carrier & SDH/SONET testing up to 10 Gb/s
- Ethernet testing 10/100/1GigE/10GigE LAN & WAN up to the IP layer

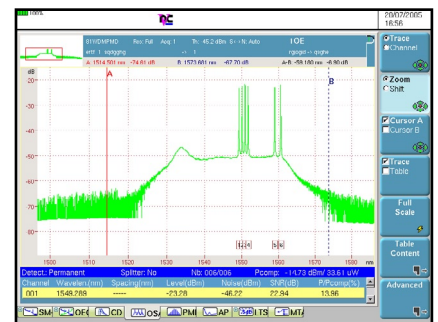
### Dispersion Modules

- PMD – Polarization Mode Dispersion
- CD – Chromatic Dispersion



### CWDM/DWDM Testing

- OSA with frequency range from 1250 nm to 1650 nm
- DWDM parameters OSNR, optical channel power, wavelength deviation
- Application for EDFA and DFB testing
- Channel isolation for BER analysis
- Single or dual port analyzer



Amplified DWDM system analysis

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# Fiber Characterization



Bi-directional OTDR analysis

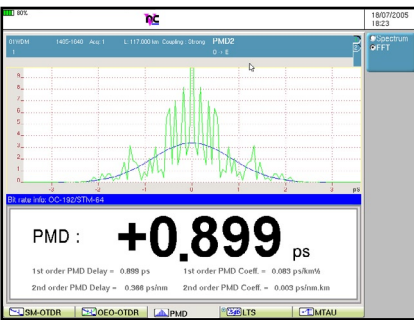
## PC software solution for report generation

### OFS-100 Results Analysis

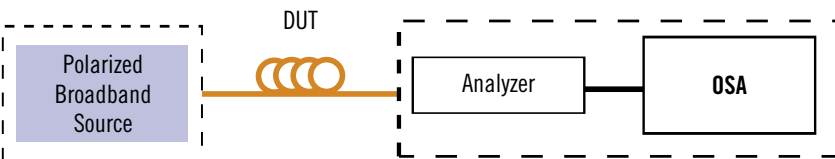
- OTDR, CD, PMD, AP, and OSA results analysis
- Batch processing capability via automation process
- Pass/Fail function
- Customized printouts

### OFS-200 FiberCable Acceptance Report Generation

- Complete fiber characterization reporting capability including bi-directional OTDR, CD, PMD, AP, IL and ORL results
- Advanced OTDR evaluation for loop back and mid-point management
- Powerful report preview
- Direct access keys for easy process and efficiency



PMD test results with Pass/Fail analysis

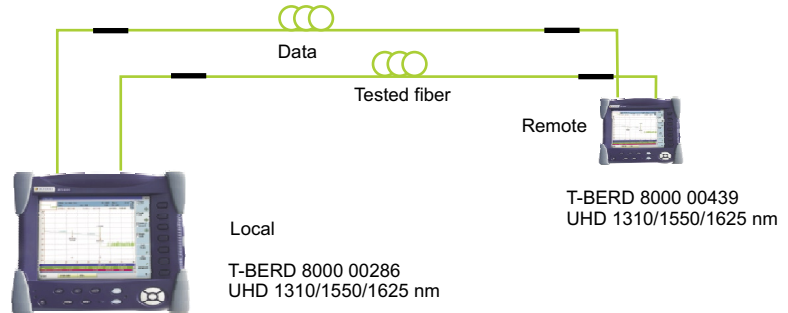


## Automatic bi-directional measurement function

- Automate the acquisition process
- Check fiber continuity
- File transfer through the fiber
- True splice loss with both end analysis
- Optical talkset option needed

## Built-in Optical Talkset

- Data transfer capability: file exchange or remote control
- Used also for fully automatic bi-directional measurements
- OTS-55 handheld for far end communication



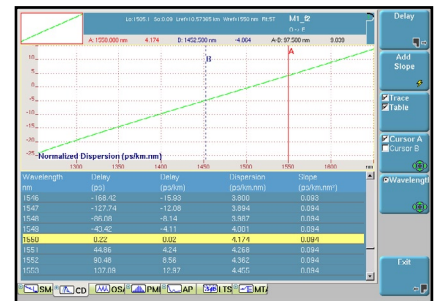
## Physical Fiber Testing

### Key features OTDR

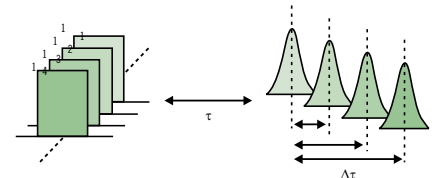
- Fast data acquisition enables VHD plug-in to reach 40 dB after 10 s with a maximum performance up to 45 dB
- Highest dynamic range with 50 dB at 1550 nm, UHD module
- New VLR module with outstanding dead zone of 0.8 m EDZ and 4 m ADZ, 43 dB dynamic
- Fastest scan speed at 0.1 s in real-time mode
- Up to 128000 acquisition points with sampling resolution down to 4 cm

## CD Module

- Pulse delay method complies with TIA/EIA FOTP-168
- Fast single-end measurement with sectional analysis capability
- CD analyzer and four-wavelength OTDR (1310/1480/1550/1625 nm) with one module



Single menu for chromatic dispersion trace and table display



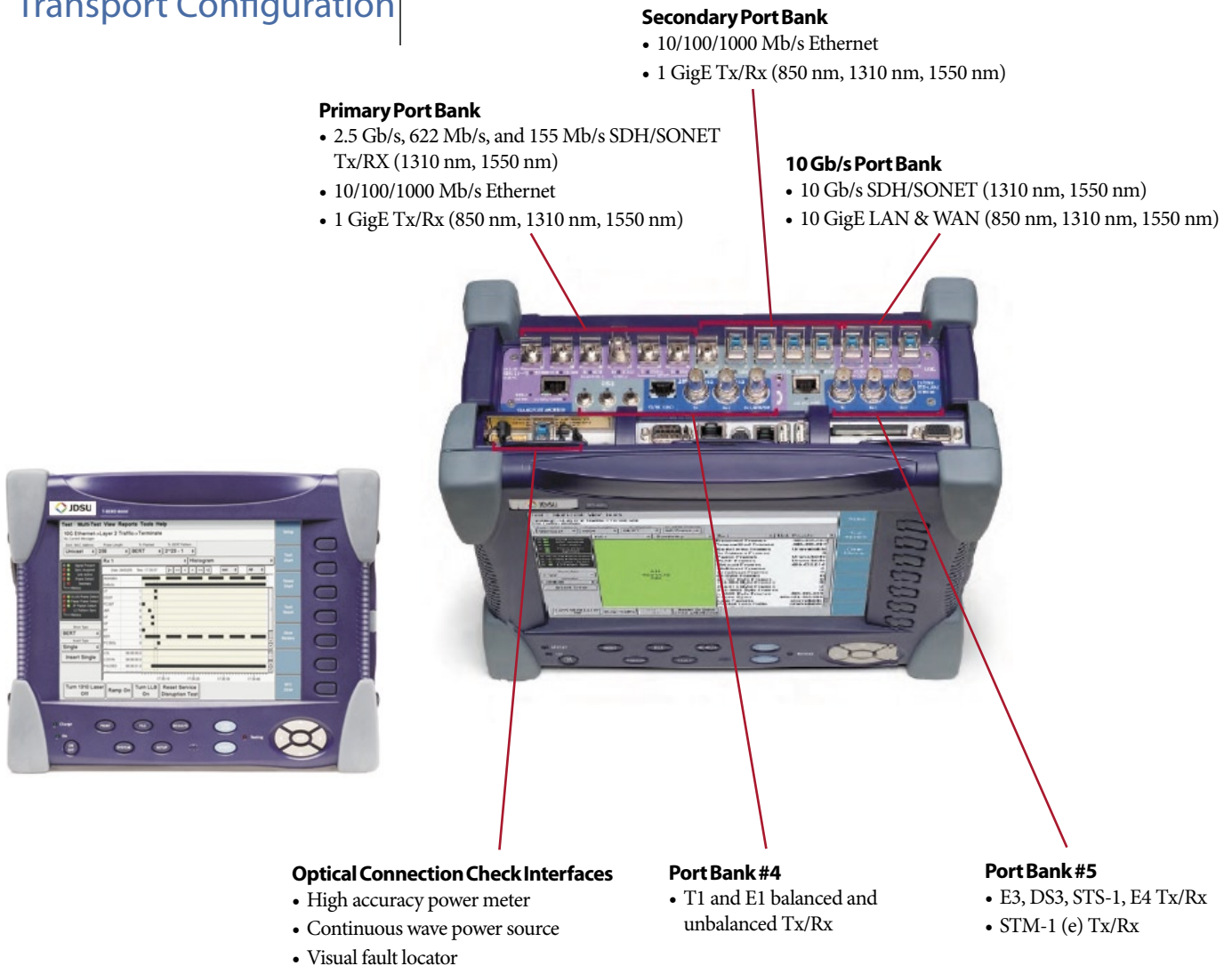
Pulse delay method complies with TIA/EIA FOTP-168

## PMD Module

- Fixed analyzer method standardized by ITU-T, IEC and TIA/EIA
- Fast measurement time – from just 6 seconds
- Measure through multiple EDFAs

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## Transport Configuration

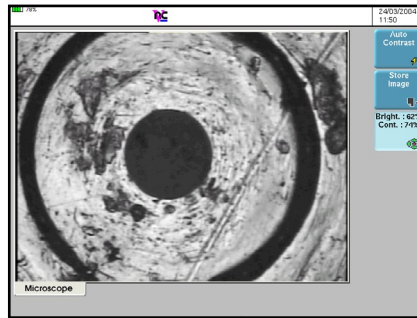
**Transport Module**

- Contained in one 5 cm module
  - PDH / T-carrier interfaces include DS1, E1, E3, DS3, E4, STS-1 and STM-1e
  - SDH/SONET interfaces (1310 nm, 1550 nm) include 155 Mb/s, 622 Mb/s, 2.5 Gb/s, 10 Gb/s
  - Ethernet interfaces (850 nm, 1310 nm and 1550 nm) include 10/100/1000 Mb/s electrical and 1 GigE Optical
  - **10 GigE LAN + WAN**
- Only 5.5 lbs (2.5 kg) fully populated, total weight <15.4 lbs (7 kg)
- Fully scalable to meet your current and future needs
- Optical and electrical signal level measurements
- Up to 2.5 hours at **10 Gb/s rates** with one battery (2 batteries possible)
- Field exchangeable connectors for all standard connector types
- **SDH/SONET testing**
  - Mixed payload generation and analysis
  - Concatenated signals
  - Automatic Protection Switching (APS)
  - Overhead byte manipulation and analysis
  - Round Trip Delay (RTD)



### Connector Inspection Scope

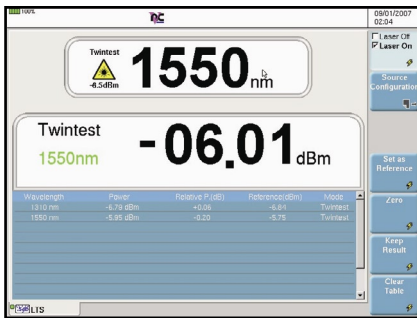
- Fiber Connector Inspection Connectors
- Patch panel inspection
- 250 or 400 magnification
- Uses T-BERD 8000 large screen (10.4")
- Comparison with 3 other images on the same screen



EFSCOPE250, EFSCOPE400: Optical video inspection probe

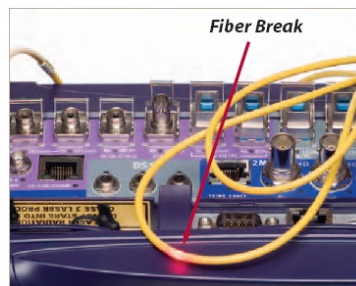
### Insertion Loss Measurements

- Power meter integrated in T-BERD 8000 mainframe
- Multi-wavelength laser source with CW or modulated signals
- Easy loss measurements of a jumper or patch cord



### Built-in 635 nm Visual Fault Locator

- Universal push/pull for all 2.5/1.25 mm connector types



### Alternatively

OVF-1 ball pen-sized separate visual fault locator



### OTS-55 SMART Optical Talkset

- $\geq 45$  dB dynamic range
- Wavelength of operation: 1550 nm



### Accessories



E80HCase5: Hard carrying case for single module configuration



E80SCase3: Soft carrying case for single module platform



E80keyB: USB keyboard

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