

## Fiber Inspection and Test



**Fiber Inspection and Cleaning**



**Power Meters, Light Sources, and Loss Test Sets**



**Fiber Accessories**

## Fiber Characterization



**T-BERD 8000 or T-BERD 6000**  
Advanced Fiber Characterization Kit  
OTDR, PMD, CD, SA  
(Modules fit both T-BERD 6000 and T-BERD 8000)  
*Fiber characterization services also available*

## OTDRs



**T-BERD 4000**  
Low-Cost OTDR



**T-BERD 6000**  
OTDR, CWDM OTDR



**T-BERD 8000**  
OTDR, CWDM OTDR

## CWDM/DWDM/ROADM (In-Band)



**T-BERD 8000**  
CWDM, DWDM, ROADM OSA



**T-BERD 4000**  
CWDM OSA



**OCC-55 for CWDM**  
**OCC-56 for DWDM**  
Optical Channel Checkers

*T-BERD 6000 & T-BERD 8000 CWDM OTDR (see OTDR section)*

## Transport and Business Services (MetroE, Cell Backhaul, and Others)

## Centralized Remote Testing



**SmartClass**  
Ethernet only  
(to GigE)  
DS1 only



**HST-3000**  
MetroE, Cell Backhaul,  
DSO, Trunking (PRI/ISDN),  
SIP (VoIP),  
Ethernet over DOCSIS



**T-BERD 6000A**  
Modular Test Platform  
(Transport to 10GigE)  
MetroE, 10GigE, Cell Backhaul,  
One-Way Latency,  
OTU1/OTU2 (2.7G/10.7G)



**T-BERD 8000**  
Modular Test Platform  
(Transport to 40G)  
MetroE, 10GigE, Cell Backhaul,  
OTU1/OTU2 (2.7G/10.7G)



**QT-600**  
Ethernet  
**CENTEST 650**  
DS1 and Pseudowire CBH  
**MVP-200 and PVM**  
Video



**Optical Network Management System (ONMS)**  
24/7 Remote Fiber Network Monitoring  
Fiber Network Monitoring and Optical Fiber Mapping  
*Fiber Monitoring Services (Fiber Sentry) also available*

## Fiber Inspection and Test

Tests to Perform	Tool Category	Fiber Inspection Kits	T-BERD 8000	T-BERD 6000	T-BERD 4000	SmartClass Handhelds	PocketClass Handhelds	Fiber Accessories
Evaluate connector end face quality	Connector inspection	■	■	■	■			
Measure power levels	Optical power meter	■	■	■	■	■	■	
Visual (red light) fault location	VFL	■	■	■	■	■	■	
Detect live traffic	Fiber identifier							■
Optical test source	Light source		■	■	■	■	■	

## Fiber Characterization

Tests to Perform	Tool Category	T-BERD 8000	T-BERD 6000
Passive link characterization (OTDR, IL, ORL, CD, PMD, AP)	Link characterization	■	■
Network characterization (CD, PMD, AP through amps, active devices)	Network characterization	■	■
Test automation (script, optical switch)	Link characterization	■	
Single fiber connection to run multiple tests	Link characterization	■	■

## OTDRs

Tests to Perform	Tool Category	Fiber Inspection Kits	T-BERD 8000	T-BERD 6000	T-BERD 4000	SmartClass Handhelds	PocketClass Handhelds	Fiber Accessories
Detect fiber lengths and breaks	OTDR		■	■	■			
Evaluate event loss, reflectance on connectors and splices	OTDR		■	■	■			
Measure link loss	OTDR, loss test set		■	■	■	■	■	■
Detect macrobends	OTDR (multi-wavelength)		■	■	■			■
Evaluate fiber paths on CWDM networks (length, splice, connector loss, reflectance, ORL)	CWDM OTDR		■	■				
Optical return loss	OTDR, return loss meter		■	■	■	■		

## CWDM/DWDM/ROADM

Tests to Perform	Tool Category	T-BERD 8000	T-BERD 6000	T-BERD 4000	SmartClass Handhelds	PocketClass Handhelds
Verify CWDM wavelengths/power levels	CWDM channel checker or OSA	■	■	■	■	■ <sup>1</sup>
Verify DWDM wavelengths/power levels	DWDM channel checker or DWDM OSA	■	■		■	■ <sup>1</sup>
Evaluate fiber paths on CWDM networks (length, splice, connector loss, reflectance, ORL)	CWDM OTDR	■	■			
CWDM spectral analysis (optical power and wavelength per channel, drift)	COSA or OSA	■	■	■		
DWDM spectral analysis (optical power and wavelength per channel, drift, OSNR)	DWDM OSA	■	■			
In-band spectral analysis (optical power and $\lambda$ , per channel, drift, in-band OSNR on ROADMs and/or advanced laser overlapping spectra)	ROADM (in-band) OSA	■				
DWDM source for generating discrete wavelength signals in C-band	Tunable laser source					■

<sup>1</sup> Limited to checking fully de-muxed channel, and only if wavelength is known

## Transport and Business Services

Tests to Perform	Tool Category	T-BERD 8000	T-BERD 6000A	HST-3000	SmartClass
Metro-E (Ethernet to GigE)	Layer 1/2/3 Services	■	■	■	■
10Gig Ethernet	Layer 1/2/3 Services	■	■		
Full line rate capture	Layer 1/2/3 Services	■	■		
One-way delay	Layer 1/2/3 Services		■		
Cell backhaul (Ethernet)	Layer 1/2/3 Services	■	■	■	■
Cell backhaul (DS1/DS3 or pseudowire)	Layer 1/2/3 Services	■	■	■	■ <sup>1</sup>
STS to OC-192 (10G SONET)	Layer 1/2/3 Services	■	■		
Trunking (PRI ISDN)	Layer 1/2/3 Services		■	■	
Business VoIP (SIP)	Layer 1/2/3 Services			■	
Upgradeable for fiber testing	Layer 1/2/3 Services	■	■		

<sup>1</sup> Limited to DS1

## Centralized Remote Testing

Tests to Perform	Tool Category	QT-600	CENTEST 650	MVP-200 and PVM	ONMS
Metro-E (Ethernet to GigE)	Remote test	■			
Cell backhaul (Ethernet)	Remote test	■			
Cell backhaul (DS1 or pseudowire)	Remote test		■		
24/7 fiber monitoring	Remote test				■
Video	Remote test			■	

