

# High speed submarine network deployments

Smarter  
network  
in sight.



## FTBx-88400NGE Power Blazer Multiservice Test Module

Most compact 400G multiservice test module for lab and field applications.



## FTBx-88200NGE Power Blazer 100G Multiservice Test Module

Next-generation, 100G, advanced multiservice test solution with CFP4 and QSFP28 interfaces.



## FTB-88100NGE Power Blazer

Turnkey, compact field test solution for deploying and troubleshooting networks up to 100G.



## FTBx-8870/8880 Power Blazer

Versatile 10G multiservice test modules for lab and field applications.



## FTBx-5245/5255 Optical Spectrum Analyzers

Highly accurate, easy-to-use optical spectrum analyzers (OSAs) for current and next-generation networks.

## Commissioning and turning up high speed submarine networks

- › Newer and more serious challenges call for physical layer tests such as **dispersion testing**, which includes chromatic dispersion (CD) and polarization mode dispersion (PMD). Tests once considered valuable at 10G are now critical at **high speed transmissions**.
- › System turn-up tests consisting of signal power level and optical signal-to-noise ratio (OSNR) measurements are then required for repeated transoceanic or festoon links. End-to-end level qualification of the network must be performed in compliance with all relevant tests (e.g., **SONET/SDH, OTN and Ethernet**), and associated tests such as bit error rate, RFC 2544, latency and survivability.

With iOptics, validate any pluggable transceiver from 10M to 100G, covering SFP, SFP+, XFP, CFP, CFP2, CFP4, QSFP+ and QSFP28

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## FTB-5700 Single-Ended Dispersion Analyzer

Combined CD and PMD measurement in a highly automated, high-efficiency, single-ended test solution.



## FTB-5500B PMD Analyzer

Patented design: Test through EDFAs. Compliant with TIA-FOTP-124A standard. Testing time under 5 seconds for any PMD range.



## FTB-7600E Ultra-Long-Haul OTDR

The FTB-7600E OTDR offers a dynamic range of up to 50 dB; this module can test over distances of up to 250 km.



## Fiber Guardian Stand-Alone Remote OTDR Unit

Remote fiber characterization, testing, and 24/7 monitoring and alerting functions. Delivers the measurement of fiber, splice and connector aging.



## FIP-400B Fiber Inspection Probe

100% automated, one-step inspection probe delivering fast and consistent test results with full reporting capabilities.

## Fiber characterization and troubleshooting

When it comes to high speed transoceanic transmission, assessing fiber quality is a must. Our **high speed submarine network expertise** encompasses network components and fiber stages testing throughout all the transmission network stages.

- › **Total link characterization** is an important step that provides a view of the entire link, including all interconnection points, fusion splices and fiber sections. **Link characterization**, which includes CD, PMD and OTDR tests, also serves as a future reference when performing commissioning and troubleshooting on the same link.
- › In both festoon and coastal networks, high-power OTDRs can be easily used.
- › The critical weakness of **undersea cables** is their vulnerability to damage caused by fishing and vessel anchoring. Constant surveillance of these optical fiber cables requires an OTDR monitoring solution. These easy-to-manage units cost-effectively monitor coastal route topologies (festoon style), and also keep you up to date on the status of the fibers and cables. They also use various messaging channels to alert you of any potential impairment to your most valuable asset.