Optical Frequency Domain Reflectometer

OFDR-APx Series

High Performance OFDR

Ultra-high resolution and superior sensitivity to ensure unparalleled analysis flexibility across diverse networks, making it the ultimate tool for advanced optical diagnostics

Applications

- Photonic Integrated Circuits (PIC) development
- Complex micro-optics, waveguides and fiber optics assemblies
- Optical cables installation and maintenance
- Fiber connectors verification and optimization
- +++

Market Segments

- Optical Communications
- Optical Sensing
- Quantum
- +++

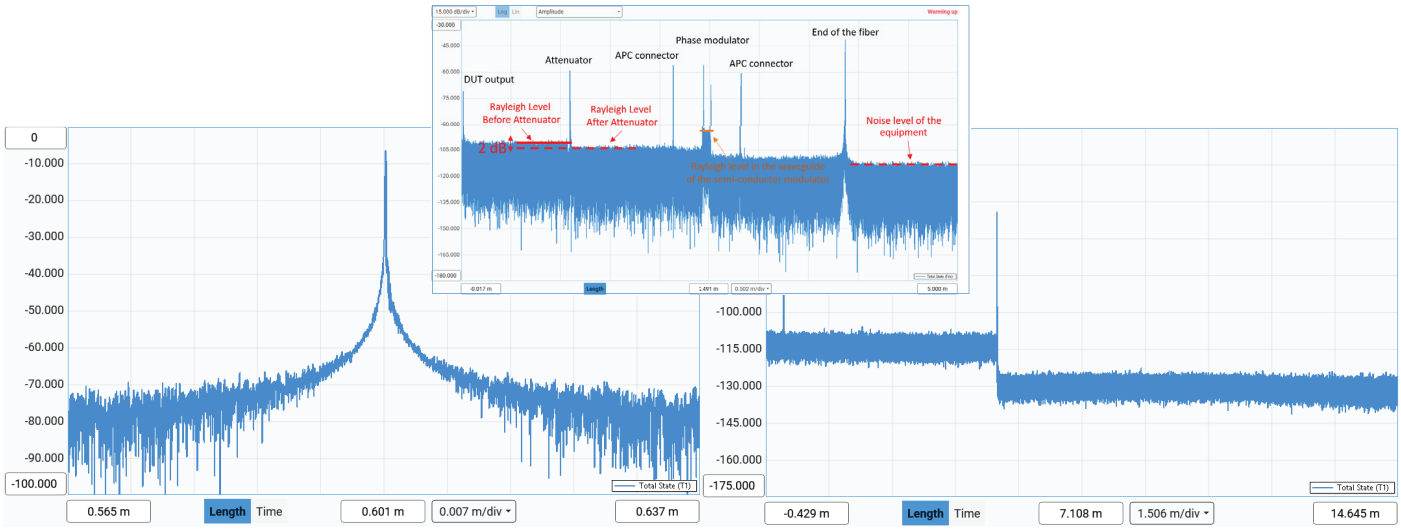
Industries

- Telecom / Datacom
- Energy
- Aerospace & Defense
- Automotive
- Academic Research
- Biomedical
- +++

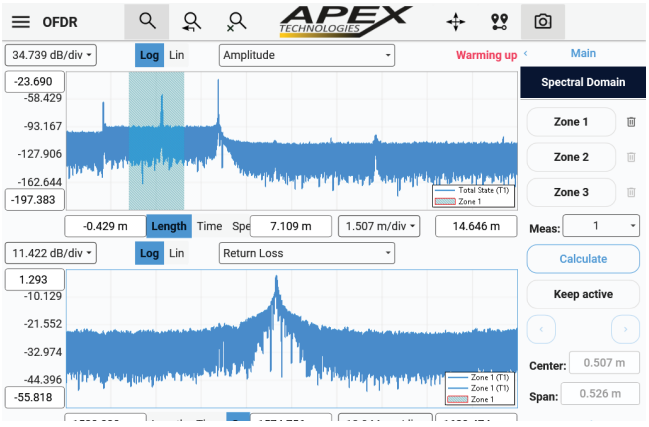
OFDR-APB Series Advantages

Advantages	Benefits	Features
High Resolution	Locate small and adjacent defects and discontinuities, even in PICs	Narrow linewidth laser + Proprietary interferometric design
Large Measurement Range	Measure both very short waveguides and long fiber assemblies	Configured with 3 selectable length modes
High Dynamic Range	Detect weak reflections despite strong reflectors in the optical path	Largest dynamic range on the market + Highest sensitivity
Versatility	Measure components in both in reflection and *transmission*	Proprietary interferometric design
Ease of use	Time-saving efficiency	User-friendly interface & Remote control capabilities

High Sensitivity & High Dynamic Range, for the Analysis of Complex Assemblies

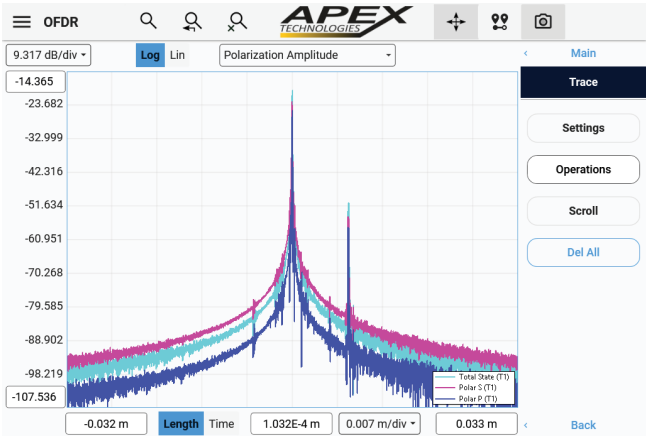


Spectral Response



Analyze the insertion losses and return losses in time domain *and* spectral domain

Polarization Diversity



Two (2) orthogonal polarization states are measured independantly and displayed, individually or combined

Performance Specifications

Parameters	Values	Units
Wavelength range		
OFDR-AP6-O	1260 to 1355	nm
OFDR-AP6-CL	1520 to 1630	nm
Length mode		
Two-point sampling resolution	8 | 16 | 32 | 42	µm
Length modes – Reflection	2 | 11 | 45 | 90 | 181 | 244	m
Length modes – Transmission[1]	4 | 22 | 90 | 180 | 362 | 488	m
Wavelength absolute accuracy	± 1.5	pm
Wavelength relative accuracy	< 0.5	pm
Maximum optical power	6	dBm
Measurement time	*See table below*	
Reflection mode		
Return loss dynamic range	85	dB
Insertion Loss dynamic range	18	dB
Sensitivity	-135	dB
Total range	-10 to -132	dB
Amplitude repeatability[2]	± 0.05	dB
Accuracy	± 0.1	dB
Length repeatability[2]	± 12	µm
Transmission mode		
Insertion loss dynamic range	82	dB
Sensitivity	-118	dB
Total range	0 to -115	dB
Amplitude repeatability[2]	± 0.05	dB
Accuracy	± 0.1	dB
Length repeatability[2]	± 24	µm

(1) Optional
(2) StDev @ 3σ

Measurement Times *vs* Length & Resolution

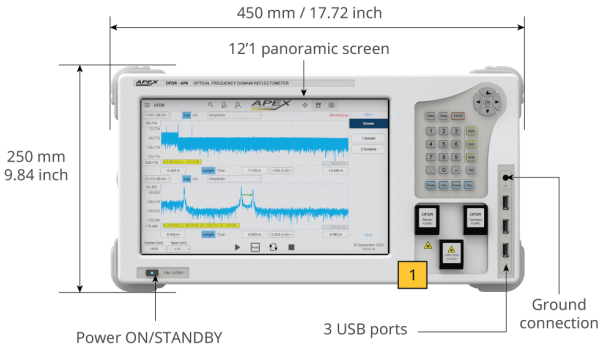
Length Mode	8 µm	16 µm	32 µm	42 µm
2 m	3 s	2 s	1.4 s	–
11 m	6.5 s	5 s	3 s	–
45 m	21 s	12 s	7 s	–
90 m	–	21 s	12.5 s	–
181 m	–	–	22 s	–
244 m	–	–	–	22 s

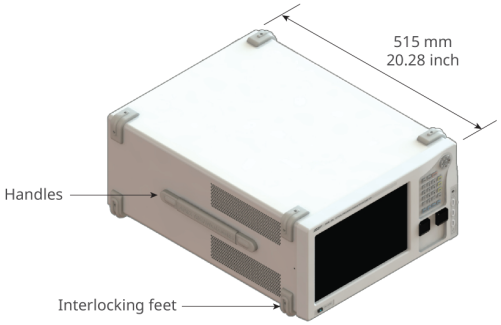
General Specifications

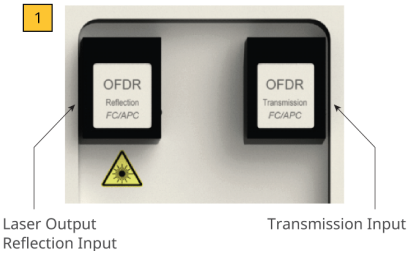
Parameters	Values
Remote Control	Ethernet
Connectors	FC/APC
Weight	21 kg (46 lbs)
Power	115/230 VAC, 50/60 Hz, 350 W
Operating T°	+5 to 35 °C
Storage T°	-10 – +50 °C
Humidity	20 – 80% RH non-condensing

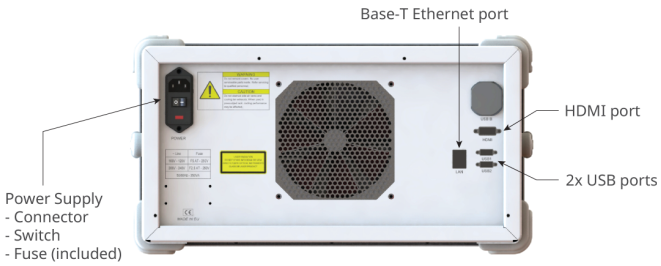
Bring your Lab to the Top

APEX Technologies – Experts in Next Generation Test Equipment









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