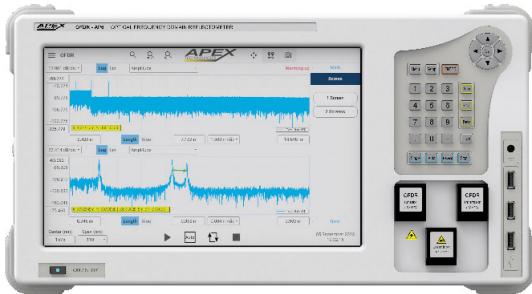


Optical Frequency Domain Reflectometer

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

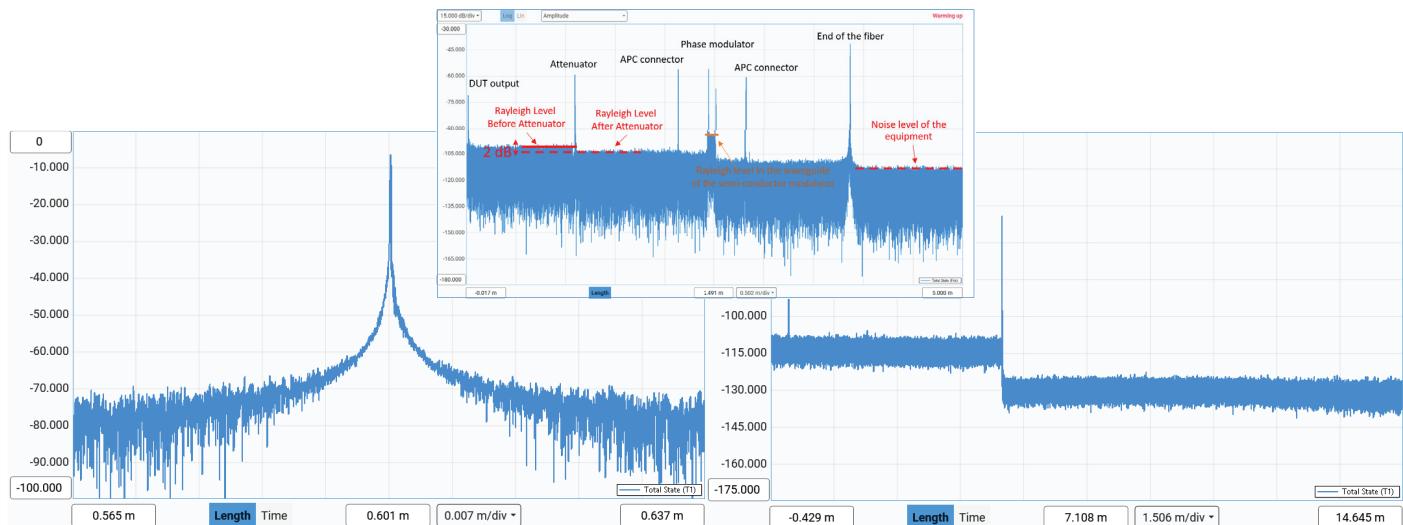
- Telecom / Datacom
- Energy
- Aerospace & Defense
- Automotive
- Academic Research
- Biomedical
- +++



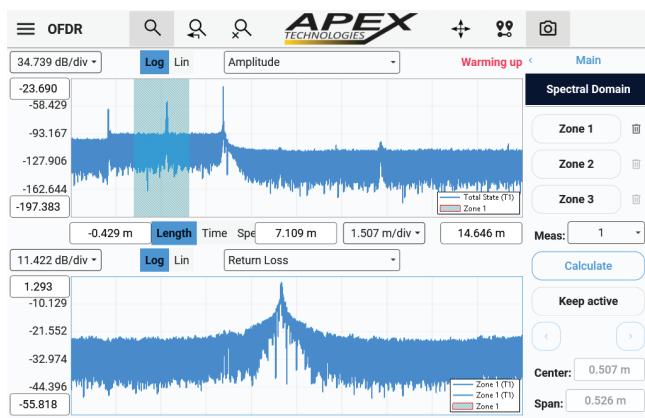
OSA/OCFA Advantages

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 reflection and <i>transmission</i>	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

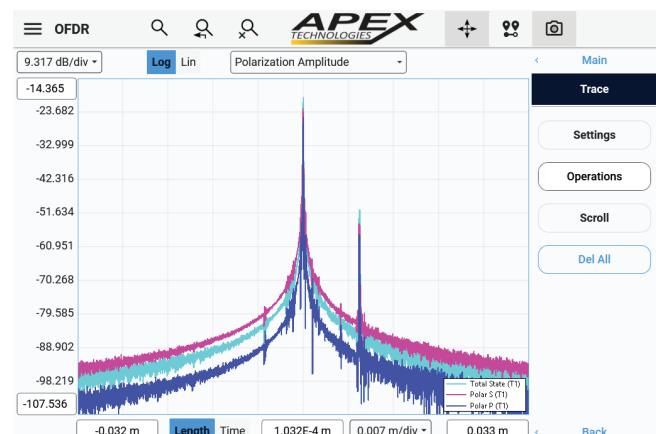


Spectral Response



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 table	See next table	
Reflection mode		
Return loss dynamic range	85	dB
Insertion Loss dynamic range	18	dB
Sensitivity	-135	dB
Total range	-10 to -132	dB
Resolution	± 0.05	dB
Accuracy	± 0.1	dB
Length repeatability	± 12 ²	µm
Transmission mode		
Insertion loss dynamic range	82	dB
Sensitivity	-118	dB
Total range	0 to -115	dB
Resolution	± 0.05	dB
Accuracy	± 0.1	dB
Length repeatability	± 24 ²	µm

(1) Optional
(2) StDev @ 3σ

Measurement Times vs Length & Resolution

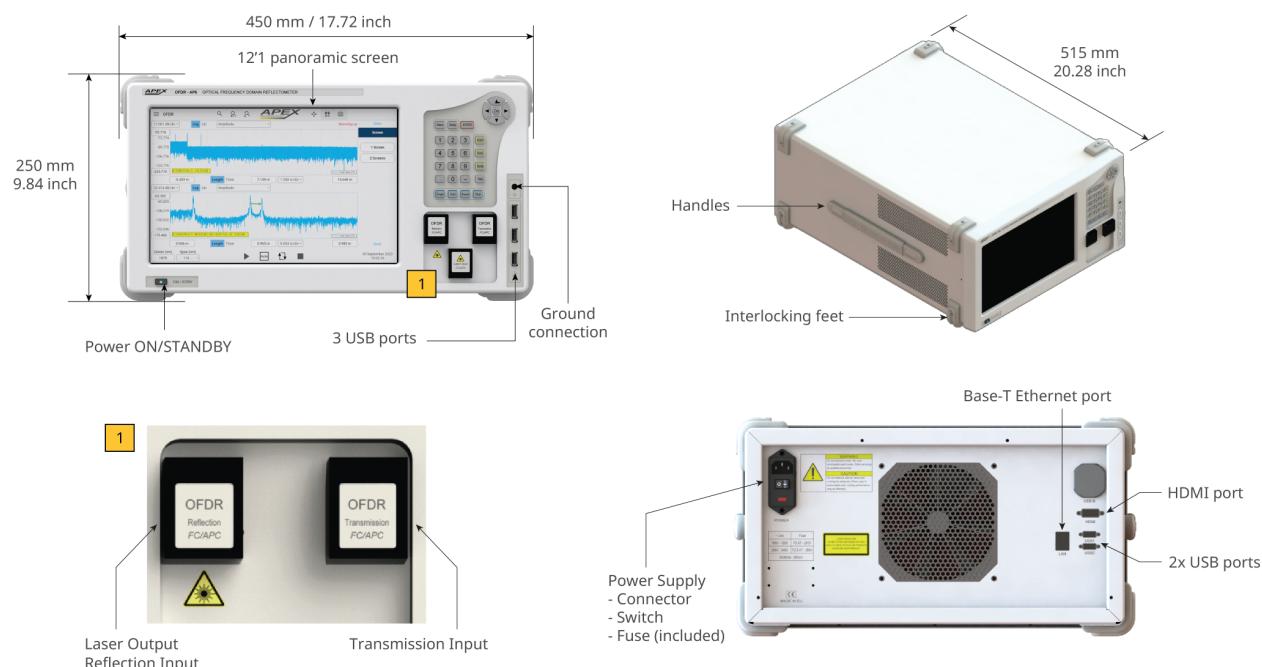
Length Mode	8 µm	16 µm	32 µm	42 µm
2 m	3 s	2 s	1.4 s	-
11 m	6.5 s	5 s	3 s	-
45 m	21 s	12 s	7 s	-
90 m	-	21 s	12.5 s	-
181 m	-	-	22 s	-
244 m	-	-	-	22 s

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



APEX Technologies

9bis, rue ANGIBOUST
91460 MARCOUSSIS
FRANCE
+33 (0)1 69 63 26 30

www.apex-t.com



© 2025 APEX Technologies, All rights reserved.