

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
- Optical cables installation and maintenance
- Fiber connectors verification and optimization
- +++

Market Segments

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

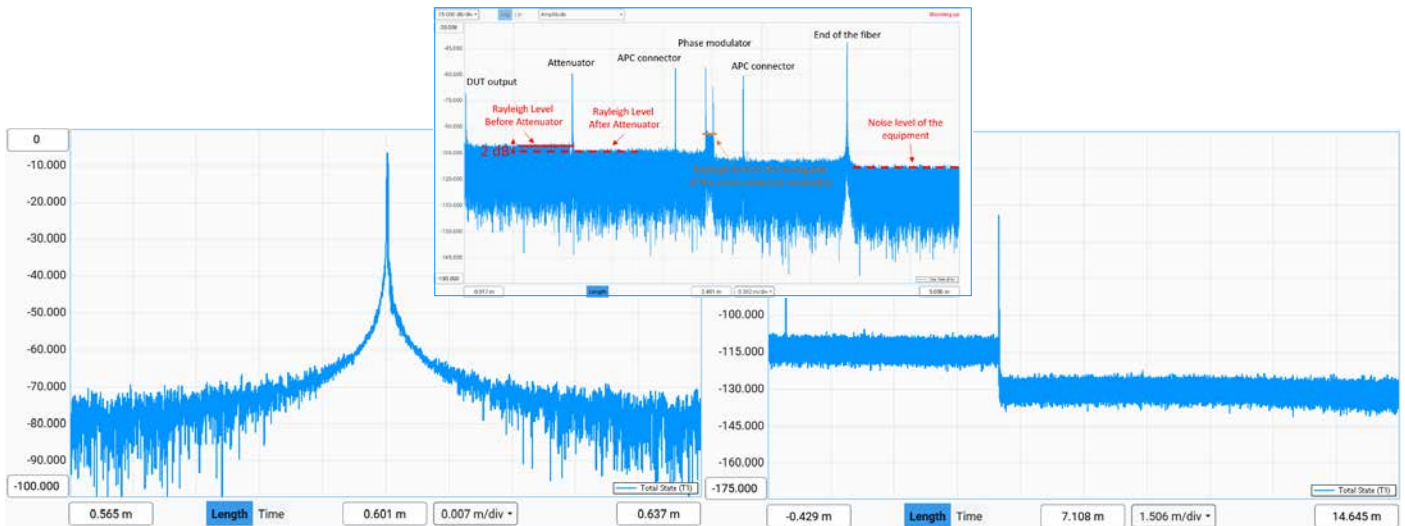
Industries

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

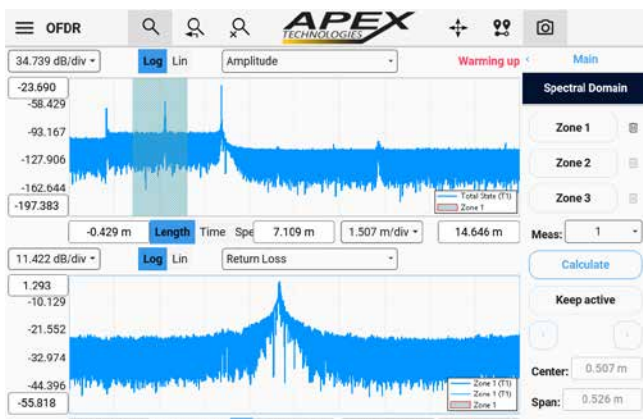
OSA/OCSA Advantages

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 <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

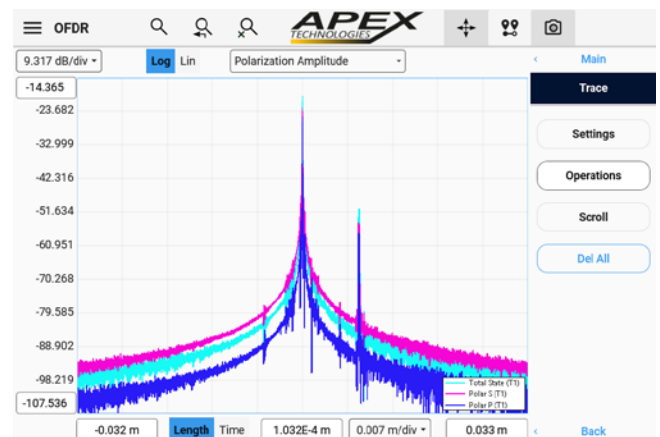


Spectral Response



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

Polarization Diversity



Two (2) orthogonal polarization states are measured independently 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	122	dB
Insertion Loss dynamic range	18	dB
Sensitivity	-135	dB
Total range	-10 to -132	dB
Resolution	+/- 0.2	dB
Accuracy	+/- 0.4	dB
Length repeatability	+/- 12 ²	μm
Transmission mode		
Insertion loss dynamic range	115	dB
Sensitivity	-118	dB
Total range	0 to -115	dB
Resolution	+/- 0.2	dB
Accuracy	+/- 0.4	dB
Length repeatability	+/- 24 ²	μm

(1) Optional
(2) StDev @ 3σ

Measurement Times (s) vs Length & Resolution

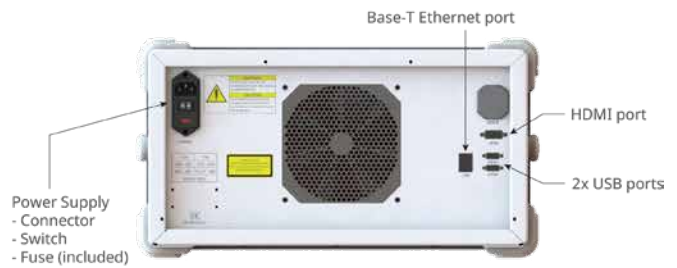
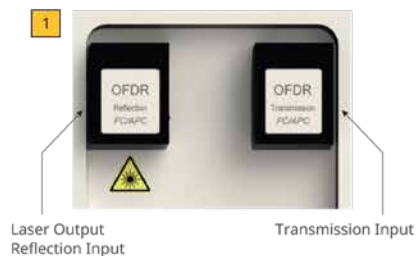
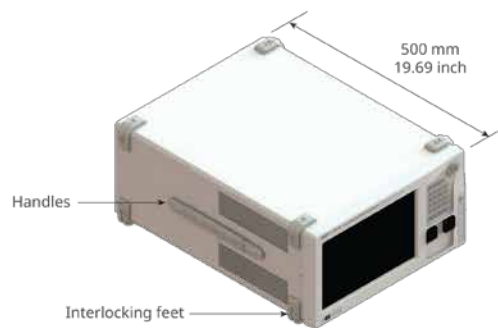
Length Mode	8 μm	16 μm	32 μm	42 μm
2 m	3	2	1.4	-
11 m	6.5	5	3	-
45 m	21	12	7	-
90 m	-	21	12.5	-
181 m	-	-	22	-
244 m	-	-	-	22

General Specifications

Parameters	Values
Remote Control	Ethernet
Connectors	FC/APC
Weight	27 kg (59 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

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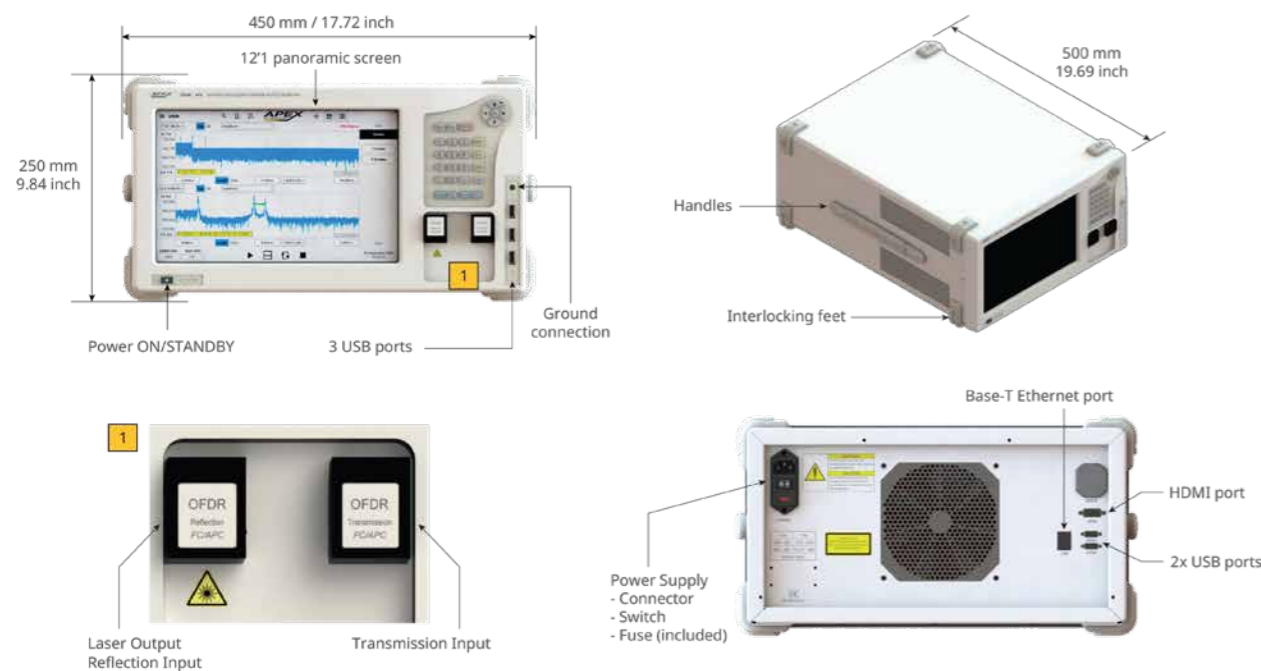
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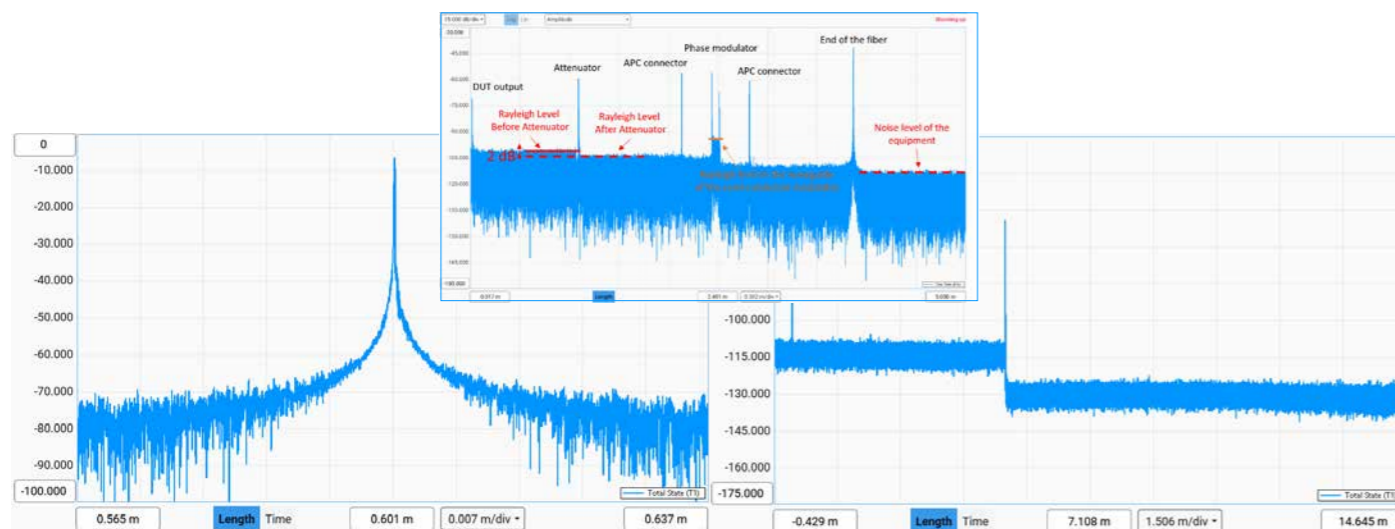


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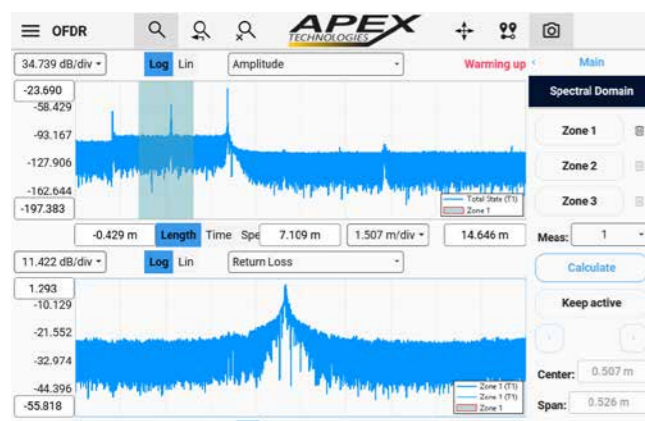
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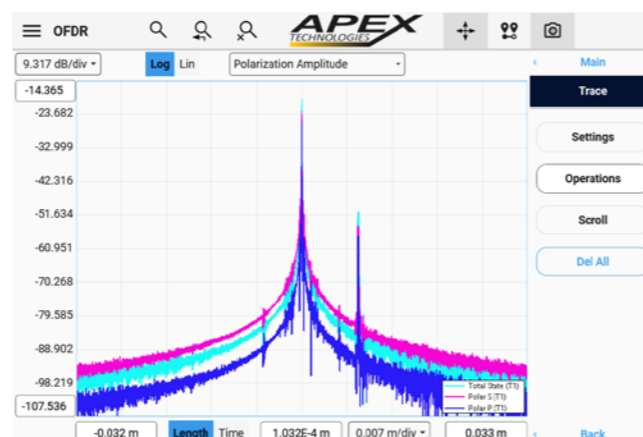


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