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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 8146A – Optical Time Domain Reflectometer

Agilent Keysight 8146A Optical Time Domain Reflectometer The HP 8146A is the follow-on single-mode OTDR to the 8145A for field and bench fiber tests. OEM 8146A literature lists 1300/1550 nm single-mode OTDR operation, HP-IB, and the same data-correlation OTDR class as 8145A with improved user interface and module options in the 8146A generation. SMF construction and maintenance OTDR at 1300 and 1550 nm. Instrument Type: Optical time domain reflectometer The HP 8146A is the follow-on single-mode OTDR to the 8145A for field and bench fiber tests. OEM 8146A literature lists 1300/1550 nm single-mode OTDR operation, HP-IB, and the same data-correlation OTDR class as 8145A with improved user interface and module options in the 8146A generation. SMF construction and maintenance OTDR at 1300 and 1550 nm. Instrument Type: Optical time domain reflectometer Wavelength Class: 1300 nm and 1550 nm module options



MODEL

**Agilent / Keysight
8146A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

8146A

LISTING

<https://aumictechlabs.com/products/8146a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 8146A is a optical time domain reflectometer (OTDR) engineered for installation, field maintenance, and benchtop characterization of optical fiber systems and components. The instrument automatically analyzes optical links, detecting up to 100 reflective

and non-reflective events in under seven seconds with measurement repeatability and precision suitable for R&D, manufacturing, and field service applications. Technical Specifications Distance and Resolution Span: 1 to 200 km selectable Read-out resolution: 0.1 m / 0.0001 mi / 0.1 ft Distance accuracy: ± 0.5 m $\pm$ sample spacing Sampling resolution: < 5 cm Event dead zone: as low as 3 m (module dependent) Attenuation dead zone: 30 m or 40 m (module dependent) Dynamic Range & Sensitivity Dynamic range: up to 30 dB (module dependent) Minimum detectable splice loss: 0.05 dB Physical & Power Dimensions: 190 mm H $\times$ 340 mm W $\times$ 465 mm D Net weight: 15 kg including one module Power requirement: 120 V Laser safety: Class 1 (IEC 60825-1) Key Features Plug-in module architecture supports single-mode and multimode fiber testing Expert and Easy operating modes accommodate varying user proficiency levels Simultaneous dual-waveform display for comparative analysis Comprehensive event detection: splice loss, connector loss, reflection points, and fiber attenuation quantification High-speed characterization: complete link analysis in under 7 seconds Typical Applications Installation verification and acceptance testing of optical fiber networks Field troubleshooting and maintenance of installed links Manufacturing quality assurance and fiber characterization Splice and connector loss validation Optical return loss and link length estimation Compatibility & Integration Single-Mode Modules HP 81462SH: 1310 nm ± 20 nm HP 81463SH: 1550 nm ± 20 nm HP 81465SH: 1310/1550 nm ± 20 nm Multimode Modules HP 81461MH: 850 nm ± 10 nm HP 81462MH: 1300 nm ± 10 nm HP 81464MH: 850/1300 nm ± 10 nm

8146A Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Optical time domain reflectometer
Series Family	HP 8145A / 8146A OTDR
Fiber Type	single-mode
Wavelength Class	1300 nm and 1550 nm module options
Predecessor	8145A (greater than 28 dB at 1300 nm, 26 dB at 1550 nm data-correlation DR)
Remote Interface	HP-IB
Application	field and bench SMF OTDR
Form Factor	portable/rugged OTDR
User Interface	menu-driven OTDR
Documentation	HP 8146A OTDR operating literature
Measurement	backscatter, splices, reflectance, length
Display	OTDR trace
Operating Environment	field/lab ambient per 8146A manual
Power	AC mains / field supply per 8146A options
Connector	optical connector interface options
Dynamic Range	see 8146A specification table (do not copy 8145A 28/26 dB unless the 8146A table states them)
Pulse Widths	see 8146A specification table
Event Dead Zone	see 8146A specification table
Attenuation Dead Zone	see 8146A specification table
Verification	read the installed wavelength-module label
Attenuation	Dead Zone: see 8146A specification table

8146A Specifications

PARAMETER	VALUE
Agilent Keysight 8146A Optical Time Domain Reflectometer	Overview
Applications	SMF construction and maintenance OTDR at 1300 and 1550 nm.
Key Features	Single-mode 1300/1550 nm OTDR class
Technical Specifications	Instrument Type: Optical time domain reflectometer

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Instrument Type	Optical time domain reflectometer
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Pulse Widths	see 8146A specification table
Event Dead Zone	see 8146A specification table
Attenuation Dead Zone	see 8146A specification table
Verification	read the installed wavelength-module label
Notes On Dr: 8145A 28/26 dB figures are 8145A literature; confirm 8146A table	
Successor Class: later HP/Agilent mini-OTDRs	
Use: SMF plant characterization	
Notes	
8146A as 8145A-generation successor SMF OTDR from HP 8146A product literature. Do not assume the 8145A 28/26 dB dynamic-range numbers on 8146A without the 8146A specification table.	

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.