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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent Keysight 81571A Optical Attenuator

Agilent Keysight 81571A Variable Optical Attenuator Module SM Angled The Agilent/Keysight 81571A is a single-slot variable optical attenuator module for 8163/8164/8166 Lightwave Solution platforms. OEM 8157xA data sheets list 1200 to 1700 nm on 9/125 μ m SMF28, 0 to 60 dB attenuation, 0.001 dB resolution, and +33 dBm maximum input power. EDFA and Raman amplifier characterization, DWDM multi-wavelength power control, and modular optical ATE attenuation. Integrated shutter for channel-drop simulation The Agilent/Keysight 81571A is a single-slot variable optical attenuator module for 8163/8164/8166 Lightwave Solution platforms. OEM 8157xA data sheets list 1200 to 1700 nm on 9/125 μ m SMF28, 0 to 60 dB attenuation, 0.001 dB resolution, and +33 dBm maximum input power. EDFA and Raman amplifier characterization, DWDM multi-wavelength power control, and modular optical ATE attenuation. Integrated shutter for channel-drop simulation Reference power offset calibration features



MODEL

**Agilent / Keysight
81571A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

81571A

LISTING

<https://aumictechlabs.com/products/81571a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent Keysight 81571A is a variable optical attenuator module that delivers precise control of optical power levels across the 1200 nm to 1700 nm band. This plug-in module integrates into Keysight's Lightwave Solution Platform mainframes, providing 0 dB to 60 dB attenuation with 0.001 dB resolution and accuracy better than ± 0.1 dB. The unit handles up to 2 W (+33 dBm) input

power, making it ideal for EDFA and Raman amplifier characterization, component testing, and multi-channel transmission system validation. Single-mode SMF28 fiber compatibility, low polarization-dependent loss, and a built-in shutter for power meter zeroing and channel-drop simulation enable flexible measurement and test workflows in demanding telecommunications and optical component environments.

Technical Specifications

Attenuation Range:	0 dB to 60 dB
Resolution:	0.001 dB
Attenuation Accuracy:	±0.1 dB (maximum)
Repeatability:	10 mdB (maximum)
Wavelength Range:	1200 nm to 1700 nm (single-mode)
Wavelength Flatness:	0.05 dB (maximum)
Maximum Input Power:	2 W (+33 dBm)
Return Loss:	57 dB (typical)
Fiber Type:	Single-mode 9/125 μm SMF28
Connector Interface:	Angled contact design

Key Features

- Single-slot plug-in module for Lightwave Solution Platform scalability
- Low polarization-dependent loss, polarization mode dispersion, and chromatic dispersion for minimal signal distortion
- Integrated mechanical shutter for safe power meter zeroing and channel-drop simulation
- Reference power functionality with relative attenuation and power display
- Built-in calibration capability for enhanced accuracy
- High input power handling suited for amplifier and component characterization

Typical Applications

- EDFA and Raman amplifier characterization
- Optical network component testing
- DWDM multi-channel transmission system validation
- Controlled optical power attenuation in fiber-optic test setups

Compatibility & Integration

The 81571A operates within Agilent/Keysight Lightwave Solution Platform mainframes: 8163A/B, 8164A/B, and 8166A/B series. Designed exclusively for single-mode fiber (9/125 μm SMF28) with angled contact connectors.

Features & description

From manufacturer datasheet

Polarization Dependent Loss At 1550 nm: 0.08 dBpp typical 0.03 dBpp

Return Loss Typical At 1550 nm: 57 dB Maximum Input Power: +33 dBm Shutter Isolation Typical: 100 dB Module Dimensions HxWxD: 75 mm x 32 mm x 335 mm Module Weight: 0.9 kg Recommended Recalibration Period: 2 years Operating Temperature: 10 C to 45 C Warm Up Time: 30 minutes Mainframe Compatibility: 8163A/B 8164A/B 8166A/B Slot Occupancy: 1 slot Notes From Keysight/Agilent 8157xA Optical Attenuators data sheet columns for 81571A.

81571A Characteristics / Specifications

PARAMETER	VALUE
Model	81571A
Connector Style	angled versatile interface
Fiber Type	9/125 um SMF28
Wavelength Range	1200 nm to 1700 nm
Attenuation Range	0 dB to 60 dB
Attenuation Resolution	0.001 dB
Attenuation Repeatability	plus or minus 0.01 dB
Attenuation Accuracy At 1550 nm	plus or minus 0.1 dB
Attenuation Accuracy Typical 1250 to 1650 nm	plus or minus 0.1 dB typical
Settling Time Typical	100 ms
Transition Speed Typical	0.1 to 12 dB/s
Attenuation Flatness 1520 to 1620 nm	plus or minus 0.07 dB
Attenuation Flatness Typical 1520 to 1620 nm	plus or minus 0.05 dB
Spectral Ripple Typical	plus or minus 0.003 dB
Insertion Loss Typical Excluding Connectors	0.7 dB
Insertion Loss Including Connectors	less than 1.6 dB typical 1.0 dB
Polarization Dependent Loss At 1550 nm	0.08 dBpp typical 0.03 dBpp
Return Loss Typical At 1550 nm	57 dB
Maximum Input Power	+33 dBm
Shutter Isolation Typical	100 dB
Module Dimensions HxWxD	75 mm x 32 mm x 335 mm
Module Weight	0.9 kg
Recommended Recalibration Period	2 years
Operating Temperature	10 C to 45 C

PARAMETER	VALUE
Warm Up Time	30 minutes
Mainframe Compatibility	8163A/B 8164A/B 8166A/B
Slot Occupancy	1 slot
Attenuation	Range: 0 dB to 60 dB
Return loss	Typical At 1550 nm: 57 dB

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	10 C to 45 C
Operating Temperature	10 C to 45 C
Warm Up Time	30 minutes
Mainframe Compatibility	8163A/B 8164A/B 8166A/B
Slot Occupancy	1 slot Notes From Keysight/Agilent 8157xA Optical Attenuators data sheet columns for 81571A.

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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Notes

From Keysight/Agilent 8157xA Optical Attenuators data sheet columns for 81571A.

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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NIST-traceable calibration · SAM registered ·
30-day returns
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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.