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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent Keysight 81570A Optical Attenuator

Agilent Keysight 81570A Variable Optical Attenuator Module SM Straight The Agilent/Keysight 81570A 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 81570A 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
81570A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

81570A

LISTING

<https://aumictechlabs.com/products/81570a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent Keysight 81570A is a variable optical attenuator (VOA) plug-in module engineered for precise optical power control across the Lightwave Solution Platform. Operating from 1200 nm to 1700 nm, it delivers 0–60 dB attenuation with ± 0.1 dB accuracy and 0.001 dB resolution. The module handles up to 2 W (+33 dBm) input power and achieves <0.05 dB wavelength flatness

across its range. An internal shutter enables power meter zeroing and protection, while built-in calibration reduces uncertainties in multi-wavelength testing. Low PDL, PMD, and CD characteristics preserve signal integrity. Return loss reaches 45 dB typical. Designed for single-mode 9/125 μm SMF28 fiber, the 81570A suits optical amplifier characterization, DWDM transmission system testing, and component validation in telecom and data communication environments.

Technical Specifications

- Attenuation range: 0–60 dB
- Attenuation accuracy: ± 0.1 dB
- Repeatability: < 10 mdB
- Resolution: 0.001 dB
- Wavelength range: 1200–1700 nm (single mode)
- Wavelength flatness: < 0.05 dB
- Maximum input power: 2 W (+33 dBm)
- Return loss: 45 dB (typical)
- Fiber type: Singlemode 9/125 μm SMF28

Key Features

- Internal shutter for power meter zeroing and protection
- Built-in calibration capability for multi-wavelength applications
- Low insertion loss with excellent spectral flatness
- Minimal signal distortion from PDL, PMD, and chromatic dispersion
- Straight connector interface

Typical Applications

- Optical amplifier testing (EDFA and Raman amplifiers)
- DWDM transmission system characterization
- Optical network component validation
- Telecommunication and data communication system testing

Compatibility & Integration

The 81570A occupies a single slot in Agilent Lightwave Solution Platform mainframes, including the 8163A/B, 8164A/B, and 8166A/B.

Features & description

From manufacturer datasheet

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

Return Loss Typical At 1550 nm: 45 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 81570A.

81570A Characteristics / Specifications

PARAMETER	VALUE
Model	81570A
Connector Style	straight 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	45 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: 45 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 81570A.

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 81570A.

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.