


**Aumictech**

Test &amp; measurement • bought, sold, repaired, calibrated

**Data Sheet**

August 13, 2026

HP / AGILENT

# HP / Agilent 81561A Variable Optical Attenuator

HP / Agilent 81561A Variable Optical Attenuator Module Angled Connector The Agilent/HP 81561A is the angled-connector sibling of the 81560A single-slot VOA for 8163/8164/8166 Lightwave platforms. Same 9/125  $\mu\text{m}$  SMF28 path, 1200 to 1700 nm coverage, 0 to 60 dB attenuation, and 0.001 dB resolution, with higher typical return loss from the angled interface. Maximum input +22 dBm; integrated shutter included. Single-wavelength attenuation with angled PC interfaces; BER setups needing lower reflections; relative power leveling; dense VOA banks in 8166A/B. The Agilent/HP 81561A is the angled-connector sibling of the 81560A single-slot VOA for 8163/8164/8166 Lightwave platforms. Same 9/125  $\mu\text{m}$  SMF28 path, 1200 to 1700 nm coverage, 0 to 60 dB attenuation, and 0.001 dB resolution, with higher typical return loss from the angled interface. Maximum input +22 dBm; integrated shutter included. Single-wavelength attenuation with angled PC interfaces; BER setups needing lower reflections; relative power leveling; dense VOA banks in 8166A/B.



MODEL

**HP / Agilent  
81561A**

CALIBRATION

**Available on  
request**

CONDITION

**Used**

STATUS

**In stock**

RFQ / SKU

**81561A**

LISTING

<https://aumictechlabs.com/products/81561a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

## This unit

The HP/Agilent 81561A is a variable optical attenuator plug-in module for the Lightwave Multichannel Platform series. It delivers precise attenuation control from 0 to 60 dB with 0.001 dB resolution across the 1200 nm to 1700 nm wavelength range, supporting single-mode fiber testing and optical power management in telecommunications applications. Technical Specifications

Attenuation Range: 0 to 60 dB Resolution: 0.001 dB Accuracy:  $\pm 0.1$  dB Repeatability:  $\pm 0.01$  dB  
Wavelength Range: 1200 nm to 1700 nm Fiber Type: 9/125  $\mu\text{m}$  single-mode (SMF28) Insertion  
Loss: Typically 1.7 dB Return Loss: Typically 60 dB Maximum Input Power: +22 dBm Polarization  
Dependent Loss:  $< 0.05$  dBpp Settling Time: Typically 100 ms Shutter Isolation: Typically 100 dB  
Dimensions: 75 mm  $\times$  32 mm  $\times$  335 mm Weight: 0.9 kg Key Features Integrated shutter for  
channel drop simulation and optical protection Automatic wavelength correction applied upon  
wavelength entry User calibration capability with relative attenuation display against reference  
power Angled fiber connector interfaces (connectors sold separately) Typical Applications  
Telecommunications system testing and validation Optical power level control and measurement  
Single-mode fiber characterization Channel attenuation simulation in multichannel optical systems  
Compatibility & Integration The 81561A occupies a single slot in Agilent's Lightwave Multichannel  
Platform 8163A/B, 8164A/B, and 8166A/B series. Two angled fiber connector interfaces are  
required; each connector must be purchased separately.

## Features & description

---

From manufacturer datasheet

### Features

- Single-slot VOA with angled versatile connector interface
- Wavelength-corrected attenuation for single-wavelength apps
- Reference power and relative power display modes
- Integrated shutter
- Higher typical return loss than straight 81560A

---

### Polarization Dependent Loss: less than 0.05 dBpp

Return Loss Typical Angled: 60 dB Maximum Input Power: +22 dBm (exposure time less than 2 h)

Shutter Isolation Typical: 100 dB Dimensions: 75 mm x 32 mm x 335 mm Net Weight: 0.9 kg

Recommended Recalibration Period: 2 years Operating Temperature: 10 C to 45 C Warmup Time: 30

minutes Humidity: noncondensing Mainframe Compatibility: 8163A/B 8164A/B 8166A/B Related Straight

Sibling: 81560A Alias: HP 81561A; Agilent 81561A; Keysight 81561A Notes Warranted and typical rows from Agilent 8156xA/8157xA Optical Attenuators technical specifications (5988-2696EN class).

Confirm angled interface adapters on the faceplate.

## 81561A Characteristics / Specifications

| PARAMETER                        | VALUE                                                                                   |
|----------------------------------|-----------------------------------------------------------------------------------------|
| Model                            | 81561A                                                                                  |
| Manufacturer                     | Hewlett Packard / Agilent / Keysight                                                    |
| Instrument Type                  | Variable optical attenuator module                                                      |
| Slot Width                       | single slot                                                                             |
| Connectivity                     | angled connector versatile interface                                                    |
| Fiber Type                       | 9/125 um SMF28                                                                          |
| Wavelength Range                 | 1200 nm to 1700 nm                                                                      |
| Attenuation Range                | 0 to 60 dB                                                                              |
| Resolution                       | 0.001 dB                                                                                |
| Repeatability                    | plus/minus 0.01 dB (constant wavelength and temperature)                                |
| Accuracy Uncertainty             | plus/minus 0.1 dB (1550 nm plus/minus 15 nm; input power less than or equal to +10 dBm) |
| Accuracy Typical Broader Band    | plus/minus 0.1 dB typical for 1250 nm to 1650 nm                                        |
| Settling Time Typical            | 100 ms (step size less than 1 dB)                                                       |
| Full Range Settling Typical      | 6 s                                                                                     |
| Insertion Loss Typical           | 1.7 dB (1550 nm plus/minus 15 nm with reference connectors)                             |
| Polarization Dependent Loss      | less than 0.05 dBpp                                                                     |
| Return Loss Typical Angled       | 60 dB                                                                                   |
| Maximum Input Power              | +22 dBm (exposure time less than 2 h)                                                   |
| Shutter Isolation Typical        | 100 dB                                                                                  |
| Dimensions                       | 75 mm x 32 mm x 335 mm                                                                  |
| Net Weight                       | 0.9 kg                                                                                  |
| Recommended Recalibration Period | 2 years                                                                                 |
| Operating Temperature            | 10 C to 45 C                                                                            |
| Warmup Time                      | 30 minutes                                                                              |
| Humidity                         | noncondensing                                                                           |

| PARAMETER                | VALUE                                      |
|--------------------------|--------------------------------------------|
| Mainframe Compatibility  | 8163A/B 8164A/B 8166A/B                    |
| Related Straight Sibling | 81560A                                     |
| Alias                    | HP 81561A; Agilent 81561A; Keysight 81561A |
| Attenuation              | Range: 0 to 60 dB                          |
| Return loss              | Typical Angled: 60 dB                      |

# General Specifications & Supplementary Characteristics

| PARAMETER                | VALUE                                                                                                                                                                                                                        |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating temperature    | 10 C to 45 C                                                                                                                                                                                                                 |
| Operating Temperature    | 10 C to 45 C                                                                                                                                                                                                                 |
| Humidity                 | noncondensing                                                                                                                                                                                                                |
| Warmup Time              | 30 minutes                                                                                                                                                                                                                   |
| Mainframe Compatibility  | 8163A/B 8164A/B 8166A/B                                                                                                                                                                                                      |
| Related Straight Sibling | 81560A                                                                                                                                                                                                                       |
| Alias                    | HP 81561A; Agilent 81561A; Keysight 81561A Notes Warranted and typical rows from Agilent 8156xA/8157xA Optical Attenuators technical specifications (5988-2696EN class). Confirm angled interface adapters on the faceplate. |

# 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                   |                                                                                         |
|----------------------------------|-----------------------------------------------------------------------------------------|
| Specifications                   |                                                                                         |
| PARAMETER                        | VALUE                                                                                   |
| Model                            | 81561A                                                                                  |
| Manufacturer                     | Hewlett Packard / Agilent / Keysight                                                    |
| Instrument Type                  | Variable optical attenuator module                                                      |
| Slot Width                       | single slot                                                                             |
| Connectivity                     | angled connector versatile interface                                                    |
| Fiber Type                       | 9/125 um SMF28                                                                          |
| Wavelength Range                 | 1200 nm to 1700 nm                                                                      |
| Attenuation Range                | 0 to 60 dB                                                                              |
| Resolution                       | 0.001 dB                                                                                |
| Repeatability                    | plus/minus 0.01 dB (constant wavelength and temperature)                                |
| Accuracy Uncertainty             | plus/minus 0.1 dB (1550 nm plus/minus 15 nm; input power less than or equal to +10 dBm) |
| Accuracy Typical Broader Band    | plus/minus 0.1 dB typical for 1250 nm to 1650 nm                                        |
| Settling Time Typical            | 100 ms (step size less than 1 dB)                                                       |
| Full Range Settling Typical      | 6 s                                                                                     |
| Insertion Loss Typical           | 1.7 dB (1550 nm plus/minus 15 nm with reference connectors)                             |
| Polarization Dependent Loss      | less than 0.05 dBpp                                                                     |
| Return Loss Typical Angled       | 60 dB                                                                                   |
| Maximum Input Power              | +22 dBm (exposure time less than 2 h)                                                   |
| Shutter Isolation Typical        | 100 dB                                                                                  |
| Dimensions                       | 75 mm x 32 mm x 335 mm                                                                  |
| Net Weight                       | 0.9 kg                                                                                  |
| Recommended Recalibration Period | 2 years                                                                                 |
| Operating Temperature            | 10 C to 45 C                                                                            |
| Warmup Time                      | 30 minutes                                                                              |
| Humidity                         | noncondensing                                                                           |

| PARAMETER                | VALUE                                      |
|--------------------------|--------------------------------------------|
| Mainframe Compatibility  | 8163A/B 8164A/B 8166A/B                    |
| Related Straight Sibling | 81560A                                     |
| Alias                    | HP 81561A; Agilent 81561A; Keysight 81561A |

Notes  
Warranted and typical rows from Agilent 8156xA/8157xA Optical Attenuators technical specifications (5988-2696EN class). Confirm angled interface adapters on the faceplate.

### Available from Aumictech

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

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

#### Aumictech

788 S 500 E, Pleasant Grove, UT 84062  
[sales@aumictech.com](mailto:sales@aumictech.com) · +1 (484) 841-9341  
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·  
30-day returns  
NAICS 423690 · 811210 · 541380  
Generated August 13, 2026

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