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**Data Sheet**

August 13, 2026

HP / AGILENT

# HP / Agilent 81576A Variable Optical Attenuator Modules with Power Control and Straight Interface

HP / Agilent 81576A Variable Optical Attenuator with Power Control The Agilent/HP 81576A is a dual-slot variable optical attenuator module with integrated power-control feedback for the 8163/8164/8166 Lightwave Solution Platform. Straight-connector versatile interface, 9/125  $\mu$ m SMF, wavelength 1250 to 1650 nm, attenuation 0 to 60 dB at 0.001 dB resolution. Maximum input power +33 dBm; typical insertion loss 0.9 dB excluding connectors. EDFA and Raman amplifier test; DWDM channel power setting; BER and transceiver characterization; absolute power leveling after reference-meter calibration. The Agilent/HP 81576A is a dual-slot variable optical attenuator module with integrated power-control feedback for the 8163/8164/8166 Lightwave Solution Platform. Straight-connector versatile interface, 9/125  $\mu$ m SMF, wavelength 1250 to 1650 nm, attenuation 0 to 60 dB at 0.001 dB resolution. Maximum input power +33 dBm; typical insertion loss 0.9 dB excluding connectors. EDFA and Raman amplifier test; DWDM channel power setting; BER and transceiver characterization; absolute power leveling after reference-meter calibration.



MODEL

**HP / Agilent  
81576A**

CALIBRATION

**Available on  
request**

CONDITION

**Used**

STATUS

**In stock**

RFQ / SKU

**81576A**

LISTING

<https://aumictechlabs.com/products/81576a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

**This unit**

The HP/Agilent 81576A variable optical attenuator module offers accurate and reliable optical attenuation with integrated power control. Its straight interface ensures seamless integration into existing optical setups. Ideal for researchers and engineers requiring precise control over optical power levels.

## Features & description

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From manufacturer datasheet

### Features

- Dual-slot module with power control mode
- 0 to 60 dB attenuation; 0.001 dB resolution
- Relative power meter uncertainty plus/minus 0.03 dB plus/minus 200 pW
- Max input +33 dBm; shutter isolation typically 100 dB
- Straight versatile connector interface

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### Polarization Dependent Loss: 0.10 dBpp; typ 0.05 dBpp

Return Loss Typical Straight: 45 dB Maximum Input Power: +33 dBm Shutter Isolation Typical: 100 dB  
Dimensions: 75 mm x 64 mm x 335 mm Net Weight: 1.3 kg Recommended Recalibration Period: 2 years  
Operating Temperature: 10 C to 45 C Warmup Time: 30 minutes Mainframe Compatibility: 8163A/B  
8164A/B 8166A/B Related Angled Sibling: 81577A Alias: HP 81576A; Agilent 81576A; Keysight 81576A  
Notes Warranted and typical rows from Keysight 8157xA Optical Attenuators data sheet (5988-2696EN). Absolute power accuracy depends on the reference meter used for calibration.

## 81576A Characteristics / Specifications

| PARAMETER                                    | VALUE                                                 |
|----------------------------------------------|-------------------------------------------------------|
| Model                                        | 81576A                                                |
| Manufacturer                                 | Hewlett Packard / Agilent / Keysight                  |
| Instrument Type                              | Variable optical attenuator module with power control |
| Slot Width                                   | dual slot                                             |
| Connectivity                                 | straight connector versatile interface                |
| Fiber Type                                   | 9/125 um SMF                                          |
| Wavelength Range                             | 1250 nm to 1650 nm                                    |
| Attenuation Range                            | 0 to 60 dB                                            |
| Resolution                                   | 0.001 dB                                              |
| Repeatability Attenuation Setting            | plus/minus 0.010 dB                                   |
| Repeatability Power Setting                  | plus/minus 0.015 dB                                   |
| Accuracy Uncertainty                         | plus/minus 0.1 dB                                     |
| Settling Time Attenuation Setting Typical    | 100 ms                                                |
| Settling Time Power Setting Typical          | 300 ms                                                |
| Transition Speed Typical                     | 0.1 to 12 dB/s                                        |
| Relative Power Meter Uncertainty             | plus/minus 0.03 dB plus/minus 200 pW                  |
| Attenuation Flatness 1520 To 1620 nm         | plus/minus 0.07 dB; typ plus/minus 0.05 dB            |
| Attenuation Flatness 1450 To 1640 nm Typical | plus/minus 0.10 dB                                    |
| Spectral Ripple Typical                      | plus/minus 0.003 dB                                   |
| Insertion Loss Typical Excluding Connectors  | 0.9 dB                                                |
| Insertion Loss Including Connectors          | 1.8 dB; typ 1.2 dB                                    |
| Polarization Dependent Loss                  | 0.10 dBpp; typ 0.05 dBpp                              |
| Return Loss Typical Straight                 | 45 dB                                                 |
| Maximum Input Power                          | +33 dBm                                               |

| PARAMETER                        | VALUE                                      |
|----------------------------------|--------------------------------------------|
| Shutter Isolation Typical        | 100 dB                                     |
| Dimensions                       | 75 mm x 64 mm x 335 mm                     |
| Net Weight                       | 1.3 kg                                     |
| Recommended Recalibration Period | 2 years                                    |
| Operating Temperature            | 10 C to 45 C                               |
| Warmup Time                      | 30 minutes                                 |
| Mainframe Compatibility          | 8163A/B 8164A/B 8166A/B                    |
| Related Angled Sibling           | 81577A                                     |
| Alias                            | HP 81576A; Agilent 81576A; Keysight 81576A |
| Attenuation                      | Range: 0 to 60 dB                          |
| Return loss                      | Typical Straight: 45 dB                    |

# General Specifications & Supplementary Characteristics

| PARAMETER               | VALUE                                                                                                                                                                                                                       |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating temperature   | 10 C to 45 C                                                                                                                                                                                                                |
| Operating Temperature   | 10 C to 45 C                                                                                                                                                                                                                |
| Warmup Time             | 30 minutes                                                                                                                                                                                                                  |
| Mainframe Compatibility | 8163A/B 8164A/B 8166A/B                                                                                                                                                                                                     |
| Related Angled Sibling  | 81577A                                                                                                                                                                                                                      |
| Alias                   | HP 81576A; Agilent 81576A; Keysight 81576A Notes Warranted and typical rows from Keysight 8157xA Optical Attenuators data sheet (5988-2696EN). Absolute power accuracy depends on the reference meter used for calibration. |

# 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                                        | 81576A                                                |
| Manufacturer                                 | Hewlett Packard / Agilent / Keysight                  |
| Instrument Type                              | Variable optical attenuator module with power control |
| Slot Width                                   | dual slot                                             |
| Connectivity                                 | straight connector versatile interface                |
| Fiber Type                                   | 9/125 um SMF                                          |
| Wavelength Range                             | 1250 nm to 1650 nm                                    |
| Attenuation Range                            | 0 to 60 dB                                            |
| Resolution                                   | 0.001 dB                                              |
| Repeatability Attenuation Setting            | plus/minus 0.010 dB                                   |
| Repeatability Power Setting                  | plus/minus 0.015 dB                                   |
| Accuracy Uncertainty                         | plus/minus 0.1 dB                                     |
| Settling Time Attenuation Setting Typical    | 100 ms                                                |
| Settling Time Power Setting Typical          | 300 ms                                                |
| Transition Speed Typical                     | 0.1 to 12 dB/s                                        |
| Relative Power Meter Uncertainty             | plus/minus 0.03 dB plus/minus 200 pW                  |
| Attenuation Flatness 1520 To 1620 nm         | plus/minus 0.07 dB; typ plus/minus 0.05 dB            |
| Attenuation Flatness 1450 To 1640 nm Typical | plus/minus 0.10 dB                                    |
| Spectral Ripple Typical                      | plus/minus 0.003 dB                                   |
| Insertion Loss Typical Excluding Connectors  | 0.9 dB                                                |
| Insertion Loss Including Connectors          | 1.8 dB; typ 1.2 dB                                    |
| Polarization Dependent Loss                  | 0.10 dBpp; typ 0.05 dBpp                              |
| Return Loss Typical Straight                 | 45 dB                                                 |
| Maximum Input Power                          | +33 dBm                                               |

| PARAMETER                        | VALUE                                      |
|----------------------------------|--------------------------------------------|
| Shutter Isolation Typical        | 100 dB                                     |
| Dimensions                       | 75 mm x 64 mm x 335 mm                     |
| Net Weight                       | 1.3 kg                                     |
| Recommended Recalibration Period | 2 years                                    |
| Operating Temperature            | 10 C to 45 C                               |
| Warmup Time                      | 30 minutes                                 |
| Mainframe Compatibility          | 8163A/B 8164A/B 8166A/B                    |
| Related Angled Sibling           | 81577A                                     |
| Alias                            | HP 81576A; Agilent 81576A; Keysight 81576A |

Notes  
Warranted and typical rows from Keysight 8157xA Optical Attenuators data sheet (5988-2696EN). Absolute power accuracy depends on the reference meter used for calibration.

### 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

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NIST-traceable calibration · SAM registered ·  
30-day returns  
NAICS 423690 · 811210 · 541380  
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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.