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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent Keysight 81577A Optical Attenuator

Instrument Type: Variable optical attenuator module Wavelength Range Class: 1250 to 1650 nm on power-control high-performance modules Attenuation Range Class: 0 to 60 dB family Connectivity: angled versatile interface class for 81577A Wavelength Range Class: 1250 to 1650 nm on power-control high-performance modules Attenuation Range Class: 0 to 60 dB family Connectivity: angled versatile interface class for 81577A Modes: attenuation setting and power setting

**MODEL****Agilent / Keysight
81577A****CALIBRATION****Available on
request****CONDITION****Used****STATUS****In stock****RFQ / SKU****81577A****LISTING**<https://aumictechlabs.com/products/81577a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight 81577A Optical Attenuator is a dual-slot plug-in module for the Lightwave Solution Platform that delivers precise attenuation control across the C- and L-bands. It combines variable optical attenuation, integrated power metering, and automated power control in a single module, enabling accurate characterization of optical components and systems during development and manufacturing. Technical Specifications Attenuation Range: 0 dB to 60 dB Attenuation Resolution: 0.001 dB Attenuation Accuracy: < 0.1 dB Repeatability: < 10 mdB Wavelength Range: 1250 nm to 1650 nm (single mode) Wavelength Flatness: < 0.05 dB Maximum Input Power: 2 W (33 dBm) Return Loss: Typically 57 dB Operating Temperature: 5°C to 40°C Storage Temperature: -40°C to 70°C Operating Humidity: 15% to 95% (non-condensing) Maximum Operating Altitude: 2000 m Key Features Power Control: Directly sets output power level with automatic compensation for

input fluctuations Integrated Shutter: Enables power meter zeroing, equipment protection, and channel drop simulation Low Signal Distortion: Minimized PDL, PMD, and CD for accurate measurements Built-in Power Meter: Facilitates real-time power monitoring and control feedback Offset Calibration: Corrects for connector and patch cord losses; wavelength-dependent offset pairs stored for wavelength-specific compensation Built-in Calibration: Reduces measurement uncertainty and accelerates system calibration Typical Applications Optical network component characterization Telecommunications and data communications testing Research and development of optical systems Manufacturing test and validation Compatibility & Integration Plug-in module for Keysight Lightwave Solution Platform mainframes including 8163A/B, 8164A/B, and 8166A/B. The 8166A/B supports up to eight dual-slot modules. Angled connector interfaces; optical connectors sold separately.

Features & description

From manufacturer datasheet

High Power Family Peers: up to 2 W input class on high-power modules

Insertion Loss Typical Family: about 0.7 dB class on high-power modules Wavelength Flatness Typical Family: plus or minus 0.05 dB class Pigtail Option: available on family Connector Interfaces: Agilent versatile optical connectors Density: up to 8 dual-slot modules in 8166A/B Application Class: transceiver and component optical level setting Remote: via mainframe GPIB/LAN class Calibration: module calibration Return Loss: high RL with angled connectors class Documentation: 8156xA/8157xA module datasheet Configuration Note: use 81577A column in OEM module datasheet for exact power-control accuracy rows before denser upload Notes Family numeric rows from Agilent 8156xA and 8157xA variable optical attenuator modules datasheet; 81577A is the angled dual-slot power-control high-performance module in that family.

81577A Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Variable optical attenuator module
Series Family	Agilent 8156xA / 8157xA
Host Mainframes	8163A/B 8164A/B 8166A/B
Slot Width	2 slots
Fiber Type	9/125 um SMF28 class
Wavelength Range Class	1250 to 1650 nm on power-control high-performance modules
Attenuation Range Class	0 to 60 dB family
Resolution	0.001 dB
Connectivity	angled versatile interface class for 81577A
Modes	attenuation setting and power setting
Power Control	active power control options in family
Shutter	integrated shutter
Offsets	comprehensive path offset calibration
High Power Family Peers	up to 2 W input class on high-power modules
Insertion Loss Typical Family	about 0.7 dB class on high-power modules
Wavelength Flatness Typical Family	plus or minus 0.05 dB class
Pigtail Option	available on family
Connector Interfaces	Agilent versatile optical connectors
Density	up to 8 dual-slot modules in 8166A/B
Application Class	transceiver and component optical level setting
Remote	via mainframe GPIB/LAN class
Calibration	module calibration
Return Loss	high RL with angled connectors class
Documentation	8156xA/8157xA module datasheet
Configuration Note	use 81577A column in OEM module datasheet for exact power-control accuracy rows before denser upload

PARAMETER	VALUE
Wavelength range	Class: 1250 to 1650 nm on power-control high-performance modules
Attenuation	Range Class: 0 to 60 dB family

81577A Specifications

PARAMETER	VALUE
Agilent Keysight 81577A Optical Attenuator Module	Overview
Key Features	Plug-in VOA module for 816x mainframes
Power control capable attenuator family	0.001 dB resolution class family
Technical Specifications	Instrument Type: Variable optical attenuator module

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.

performance attenuator family.

Applications

Modular optical attenuation and power control in multi-slot lightwave test systems.

Key Features

Plug-in VOA module for 816x mainframes

Power control capable attenuator family

0.001 dB resolution class family

Wide 1200 to 1700 nm class coverage on related modules

Integrated shutter class

Technical Specifications

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Documentation	8156xA/8157xA module datasheet
Configuration Note	use 81577A column in OEM module datasheet for exact power-control accuracy rows before denser upload

Notes
Family numeric rows from Agilent 8156xA and 8157xA variable optical attenuator modules datasheet; 81577A is the angled dual-slot power-control high-performance module in that family.

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.