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Data Sheet
August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 8168A,Agilent Keysight 8168A Tunable Laser Source

Agilent Keysight 8168A Tunable Laser Source 1500 to 1565 nm The HP 8168A is a 1550 nm-window standalone tunable laser source. OEM 8168A specification summaries list 1500 to 1565 nm, 0.001 nm resolution (125 MHz at 1550 nm), absolute accuracy less than plus or minus 0.1 nm, output greater than minus 4 dBm to minus 10 dBm, SMSR greater than 40 dB, and HP-IB. EDFA and passive-component characterization; heterodyne/coherent measurements needingatrue single-mode line. Built-in side-mode filter for single-mode line at every wavelength The HP 8168A is a 1550 nm-window standalone tunable laser source. OEM 8168A specification summaries list 1500 to 1565 nm, 0.001 nm resolution (125 MHz at 1550 nm), absolute accuracy less than plus or minus 0.1 nm, output greater than minus 4 dBm to minus 10 dBm, SMSR greater than 40 dB, and HP-IB. EDFA and passive-component characterization; heterodyne/coherent measurements needingatrue single-mode line. Built-in side-mode filter for single-mode line at every wavelength Internal square-wave modulation 250 Hz to 300 kHz

MODEL **Agilent / Keysight 8168A**	CALIBRATION **Available on request**
CONDITION **Used**	STATUS **In stock**
RFQ / SKU **8168A**	LISTING **https://aumictechlabs.com/products/8168a-2/**

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NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 8168A is a tunable laser source engineered for optical component and system characterization across the 1550 nm window. It delivers independent control of

wavelength and output power with 0.001 nm resolution, enabling precise heterodyne and coherent measurements. A built-in side mode filter ensures true single-mode operation across the entire tunable range, eliminating multimodal interference and supporting fast, accurate wavelength scans with stable, flat power output.Technical Specifications Wavelength Performance Tunable range: 1500 nm to 1565 nm Wavelength resolution: 0.001 nm Wavelength accuracy: ±0.1 nm (typical) Wavelength repeatability: ±0.1 nm Output Power Output power range: -20.0 dBm to 0.8 dBm Power stability: Stable over time and flat across all wavelengths Independent control of power and wavelengthKey Features Single-mode laser line via integrated side mode filter Fast, accurate tuning across the C-band window Automated measurement routines for loss, return loss, and coupling ratio determination GPIB interface for remote control BNC connectors on front panelTypical Applications Heterodyne measurements Coherent optical system testing Wavelength-dependent component characterization Automated loss and return loss measurementCompatibility & Integration The 8168A integrates with the Agilent/Keysight 816x family of mainframes, including the 8163B, 8164B, and 8166B. Mainframe systems support GPIB, LAN, RS232, and Centronics interfaces via the 816x VXI Plug&Play Driver. Mainframe dimensions: 145 mm H × 426 mm W × 545 mm D; net weight approximately 20 kg.

Features & description

From manufacturer datasheet

Built-in side-mode filter for single-mode line at every wavelength

Independent power and wavelength control 0.001 nm resolution Internal square-wave modulation 250 Hz to 300 kHz Option 003 built-in variable attenuator Technical Specifications Instrument Type: Tunable laser source Series Family: HP 8168A/B/D/E/F standalone TLS Wavelength Range: 1500 nm to 1565 nm Absolute Wavelength Accuracy: less than plus or minus 0.1 nm Relative Wavelength Accuracy: plus or minus 0.05 nm, typical plus or minus 0.02 nm Wavelength Repeatability: plus or minus 0.05 nm, typical plus or minus 0.02 nm Wavelength Stability Typical 1 Hour: less than plus or minus 100 MHz typical over 1 hour at constant temperature Sidemode Suppression Ratio: greater than 40 dB Relative Intensity Noise Typical: minus 145 dB/Hz typical Linewidth Typical: less than 100 kHz typical Output Power: greater than minus 4 dBm to minus 10 dBm Output Isolation Typical: 60 dB typical Return Loss Typical: 60 dB typical Modulating Frequency: 250 Hz to 300 kHz squarewave Option 003: built-in variable attenuator Wavelength Resolution: 0.001 nm, 125 MHz at 1550 nm Power Linearity: plus or minus 0.1 dB Power Stability 1 Hour: plus or minus 0.03 dB, typical plus or minus 0.01 dB Power Repeatability Typical: plus or minus 0.04 dB typical

8168A Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Tunable laser source
Series Family	HP 8168A/B/D/E/F standalone TLS
Wavelength Range	1500 nm to 1565 nm
Absolute Wavelength Accuracy	less than plus or minus 0.1 nm
Relative Wavelength Accuracy	plus or minus 0.05 nm, typical plus or minus 0.02 nm
Wavelength Repeatability	plus or minus 0.05 nm, typical plus or minus 0.02 nm
Wavelength Stability Typical 1 Hour	less than plus or minus 100 MHz typical over 1 hour at constant temperature
Sidemode Suppression Ratio	greater than 40 dB
Relative Intensity Noise Typical	minus 145 dB/Hz typical
Linewidth Typical	less than 100 kHz typical
Output Power	greater than minus 4 dBm to minus 10 dBm
Output Isolation Typical	60 dB typical
Return Loss Typical	60 dB typical
Modulating Frequency	250 Hz to 300 kHz squarewave
Wavelength Resolution	0.001 nm, 125 MHz at 1550 nm
Power Linearity	plus or minus 0.1 dB
Power Stability 1 Hour	plus or minus 0.03 dB, typical plus or minus 0.01 dB
Power Repeatability Typical	plus or minus 0.04 dB typical
Height	145 mm (5.8 in)
Width	426 mm (16.9 in)
Depth	545 mm (21.6 in)
Line Voltage	100 to 240 Vrms plus or minus 10 percent
Power Consumption	260 VA maximum
Warm Up Typical	less than 1 hour typical
Recalibration Period Family	2 years (8168 series supplementary characteristics)

PARAMETER	VALUE
Remote Interface	HP-IB
Fiber Type	9/125 um single-mode
Wavelength stability	Typical 1 Hour: less than plus or minus 100 MHz typical over 1 hour at constant temperature
Linewidth	Typical: less than 100 kHz typical
Power repeatability	Typical: plus or minus 0.04 dB typical
Power stability	1 Hour: plus or minus 0.03 dB, typical plus or minus 0.01 dB
Relative intensity noise	Typical: minus 145 dB/Hz typical
Output isolation	Typical: 60 dB typical
Return loss	Typical: 60 dB typical

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
Instrument Type	Tunable laser source
Series Family	HP 8168A/B/D/E/F standalone TLS
Wavelength Range	1500 nm to 1565 nm
Absolute Wavelength Accuracy	less than plus or minus 0.1 nm
Relative Wavelength Accuracy	plus or minus 0.05 nm, typical plus or minus 0.02 nm
Wavelength Repeatability	plus or minus 0.05 nm, typical plus or minus 0.02 nm
Wavelength Stability Typical 1 Hour	less than plus or minus 100 MHz typical over 1 hour at constant temperature
Sidemode Suppression Ratio	greater than 40 dB
Relative Intensity Noise Typical	minus 145 dB/Hz typical
Linewidth Typical	less than 100 kHz typical
Output Power	greater than minus 4 dBm to minus 10 dBm
Output Isolation Typical	60 dB typical
Return Loss Typical	60 dB typical
Modulating Frequency	250 Hz to 300 kHz squarewave

Option 003: built-in variable attenuator

Specifications

PARAMETER	VALUE
Wavelength Resolution	0.001 nm, 125 MHz at 1550 nm
Power Linearity	plus or minus 0.1 dB
Power Stability 1 Hour	plus or minus 0.03 dB, typical plus or minus 0.01 dB
Power Repeatability Typical	plus or minus 0.04 dB typical
Height	145 mm (5.8 in)
Width	426 mm (16.9 in)
Depth	545 mm (21.6 in)
Line Voltage	100 to 240 Vrms plus or minus 10 percent

PARAMETER	VALUE
Power Consumption	260 VA maximum
Warm Up Typical	less than 1 hour typical
Recalibration Period Family	2 years (8168 series supplementary characteristics)
Remote Interface	HP-IB
Fiber Type	9/125 um single-mode

Option 003 Class: built-in optical attenuator on models that list Option 003

Notes
Wavelength, accuracy, power, SMSR, RIN, and modulation from HP/Agilent 8168A tunable laser specification summaries. Mechanical 145x426x545 mm and 260 VA from the HP 8168D/E/F series supplementary characteristics that describe the 8168 standalone chassis. Confirm 8168A Option 003 attenuation range on the 8168A sheet.

Ordering Information

OPTION	DESCRIPTION
Option 003	built-in variable attenuator

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

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