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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

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

Agilent Keysight 8168D Tunable Laser Source 1490 to 1565 nm The HP 8168D is a 1490-1565 nm standalone tunable laser. OEM 8167B/8168D/E/F specification table lists plus or minus 0.1 nm absolute accuracy, 0.001 nm resolution, SMSR not specified (n/a), SSE less than minus 40 dB/0.1 nm (1500-1565 nm), minimum output minus 10 dBm, and plus or minus 0.03 dB / 1 hour power stability. C-band component characterization where 1490 nm reach is required versus 8168A/B 1500 nm start. 0.001 nm resolution plus or minus 0.1 dB power linearity The HP 8168D is a 1490-1565 nm standalone tunable laser. OEM 8167B/8168D/E/F specification table lists plus or minus 0.1 nm absolute accuracy, 0.001 nm resolution, SMSR not specified (n/a), SSE less than minus 40 dB/0.1 nm (1500-1565 nm), minimum output minus 10 dBm, and plus or minus 0.03 dB / 1 hour power stability. C-band component characterization where 1490 nm reach is required versus 8168A/B 1500 nm start. 0.001 nm resolution plus or minus 0.1 dB power linearity Absolute Wavelength Accuracy: plus or minus 0.1 nm



MODEL

**Agilent / Keysight
8168D**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

8168D

LISTING

<https://aumictechlabs.com/products/8168d-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 8168D Tunable Laser Source delivers precision wavelength control across the S+C bands for optical component characterization and WDM system testing. Independent

adjustment of output power and wavelength enables stable power delivery during wavelength scans, critical for component validation and photonic experiments. A built-in sidemode filter ensures true single-mode operation with linewidth as narrow as 100 kHz, supporting both coherent and incoherent measurement scenarios.

Technical Specifications

Wavelength Range: 1490 nm to 1565 nm (S+C bands) Wavelength Accuracy: ± 0.2 nm (absolute); ± 0.01 nm (relative) Wavelength Resolution: 0.001 nm Wavelength Stability: -3 dBm Power Stability: ± 0.03 dB Linewidth: 100 kHz (typical, coherent control OFF); 30–500 MHz (typical, coherent control ON) Sidemode Filter: Built-in for single-mode operation Fiber Output: 9/125 μm SMF

Key Features

Independent power and wavelength control eliminates output fluctuations during scans Internal modulation: 250 Hz to 300 kHz squarewave, 100% depth capability External modulation: 200 kHz to 20 MHz bandwidth, $\pm 15\%$ maximum depth Three fiber connector options: straight contact, angled contact, and angled non-contact (Diamond HMS-10/HP/HRL) Coherent control mode reduces interference ripple through effective linewidth broadening to 500 MHz 0.001 nm wavelength resolution supports dense WDM component testing

Typical Applications

Dense wavelength division multiplexing (DWDM) component design validation Optical filter and component spectral characterization Loss, return loss, and coupling ratio measurements Integration into automated production test environments

Compatibility & Integration

Designed for production test automation with built-in application software supporting manual loss, return loss, and coupling ratio measurements. Compatible with HP 8153A Lightwave Multimeter for dual-channel measurement configurations. Power requirement: 100–240 Vrms $\pm 10\%$, 260 VA maximum.

8168D Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Tunable laser source
Series Family	HP 8167B / 8168D/E/F TLS
Wavelength Range	1490 nm to 1565 nm
Absolute Wavelength Accuracy	plus or minus 0.1 nm
Wavelength Repeatability	plus or minus 0.1 nm class in the 8168D column
Sidemode Suppression Ratio	n/a on the 8168D column of the 8167B/8168D/E/F table
Source Spontaneous Emission 1500 To 15	less than minus 40 dB/0.1 nm (1500-1565 nm)
Source Spontaneous Emission 1490 To 15	less than minus 35 dB/0.1 nm (1490-1565 nm)
Minimum Output Power	minus 10 dBm
Power Flatness Versus Wavelength	plus or minus 0.2 dB
Peak Power Typical	greater than minus 3 dBm peak typical (OEM 8168D/E/F comparison table)
Effective Linewidth Typical	50 to 500 MHz typical (30-500 MHz typical class shared with 8167B/8168D)
Laser Safety Class	Class 1 FDA / Class 3A IEC for 8168D/E (8168 series notes)
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

PARAMETER	VALUE
Recalibration Period Family	2 years (8168 series supplementary characteristics)
Remote Interface	HP-IB
Fiber Type	9/125 um single-mode
Linewidth	Typical: 50 to 500 MHz typical (30-500 MHz typical class shared with 8167B/8168D)
Effective linewidth	Typical: 50 to 500 MHz typical (30-500 MHz typical class shared with 8167B/8168D)
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

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 8167B / 8168D/E/F TLS
Wavelength Range	1490 nm to 1565 nm
Absolute Wavelength Accuracy	plus or minus 0.1 nm
Wavelength Repeatability	plus or minus 0.1 nm class in the 8168D column
Sidemode Suppression Ratio	n/a on the 8168D column of the 8167B/8168D/E/F table
Source Spontaneous Emission 1500 To 1565	less than minus 40 dB/0.1 nm (1500-1565 nm)
Source Spontaneous Emission 1490 To 1565	less than minus 35 dB/0.1 nm (1490-1565 nm)
Minimum Output Power	minus 10 dBm
Power Flatness Versus Wavelength	plus or minus 0.2 dB
Peak Power Typical	greater than minus 3 dBm peak typical (OEM 8168D/E/F comparison table)
Effective Linewidth Typical	50 to 500 MHz typical (30-500 MHz typical class shared with 8167B/8168D)
Laser Safety Class	Class 1 FDA / Class 3A IEC for 8168D/E (8168 series notes)
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)
Remote Interface	HP-IB

PARAMETER	VALUE
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Fiber Type	9/125 um single-mode
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Option 003 Class: built-in optical attenuator on models that list Option 003

Notes

Numeric rows from HP/Agilent 8167B and 8168D/E/F Tunable Laser Source specification table (8168D column) and series supplementary characteristics (dimensions, 260 VA, 2-year recalibration).

Ordering Information

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

Laser Safety Class: Class 1 FDA / Class 3A IEC for 8168D/E (8168 series notes) 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

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.