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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

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

Agilent Keysight 8168F Tunable Laser Source 1450 to 1590 nm The HP 8168F is the widest 1550-window standalone TLS in the 8168D/E/F set. OEM 8167B/8168D/E/F table lists 1450 to 1590 nm, plus or minus 0.050 nm absolute accuracy (typical plus or minus 0.001 nm in the inner band per footnotes), SMSR greater than 50 dB (1475-1575 nm at 1 dBm), SSE less than minus 55 dB/0.1 nm (1520-1570 nm), and minimum output minus 7 dBm (minus 47 dBm with Option 003). Wide C-band-plus component and amplifier testing from 1450 to 1590 nm. The HP 8168F is the widest 1550-window standalone TLS in the 8168D/E/F set. OEM 8167B/8168D/E/F table lists 1450 to 1590 nm, plus or minus 0.050 nm absolute accuracy (typical plus or minus 0.001 nm in the inner band per footnotes), SMSR greater than 50 dB (1475-1575 nm at 1 dBm), SSE less than minus 55 dB/0.1 nm (1520-1570 nm), and minimum output minus 7 dBm (minus 47 dBm with Option 003). Wide C-band-plus component and amplifier testing from 1450 to 1590 nm. SMSR greater than 50 dB in the 1475-1575 nm / 1 dBm condition



MODEL

**Agilent / Keysight
8168F**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

8168F

LISTING

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

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 8168F is a tunable laser source engineered for optical component characterization and testing across the C-band and L-band regions. It delivers independent wavelength and power control with high spectral purity, making it suitable for research, development, and automated production test environments.

Technical Specifications

Wavelength Performance Operating range: 1410 nm to 1590 nm Accuracy: ± 0.035 nm Resolution: 0.001 nm Stability: 50 dB Output Power Range: -20.0 dBm to +9.9 dBm Typical peak: +8 dBm Power stability (1 hour): ± 0.03 dB Wavelength-dependent performance: +6 dBm (1490–1575 nm), +4 dBm (1460–1490 nm), +0 dBm (1430–1460 nm), -4 dBm (1410–1430 nm) Laser Output Linewidth: 100 kHz typical (coherent control OFF); 50–500 MHz typical (coherent control ON at 1475–1575 nm) Fiber type: Singlemode Modulating frequency: 250 kHz to 300 kHz Tuning speed: 200 ms (1 nm), 300 ms (10 nm), 2 s (100 nm)

Key Features Built-in side mode filter ensures true single-mode operation Integrated GPIB interface for automated test systems Benchtop form factor: 145 mm H $\times$ 426 mm W $\times$ 545 mm D; 18 kg net weight Power requirements: 100–240 Vrms $\pm 10\%$, 260 VA maximum

Typical Applications Optical amplifier and component characterization Dense WDM component design validation Automated production test environments

Compatibility & Integration GPIB connectivity enables integration into automated measurement systems and production test flows.

8168F Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Tunable laser source
Series Family	HP 8167B / 8168D/E/F TLS
Wavelength Range	1450 nm to 1590 nm
Absolute Wavelength Accuracy	plus or minus 0.050 nm (1450-1590 nm), typical plus or minus 0.001 nm (footnote 2 inner band)
Wavelength Repeatability	plus or minus 0.050 nm (1450-1590 nm), typical plus or minus 0.001 nm (footnote 2)
Sidemode Suppression Ratio Typical	greater than 50 dB (1475-1575 nm at 1 dBm)
Source Spontaneous Emission 1520 To 15	less than minus 55 dB/0.1 nm (1520-1570 nm)
Source Spontaneous Emission Full Range	less than minus 45 dB/0.1 nm class on the wider 8168F SSE row
Minimum Output Power	minus 7 dBm
Minimum Output Power Option 0	minus 47 dBm
Power Linearity Option 0	plus or minus 0.3 dB with Option 003
Power Flatness Versus Wavelength	plus or minus 0.1 dB (plus or minus 0.2 dB over 1450-1590 nm footnote)
Peak Power Typical	greater than plus 8 dBm peak typical (8168D/E/F comparison table)
Output Isolation Typical	greater than 15 dB between 1490 and 1575 nm, greater than 12 dB full range (8168E/F note)
Laser Safety Class	Class IIIb FDA / Class 3A IEC for 8168F (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

PARAMETER	VALUE
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
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
Output isolation	Typical: greater than 15 dB between 1490 and 1575 nm, greater than 12 dB full range (8168E/F note)

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	1450 nm to 1590 nm
Absolute Wavelength Accuracy	plus or minus 0.050 nm (1450-1590 nm), typical plus or minus 0.001 nm (footnote 2 inner band)
Wavelength Repeatability	plus or minus 0.050 nm (1450-1590 nm), typical plus or minus 0.001 nm (footnote 2)
Sidemode Suppression Ratio Typical	greater than 50 dB (1475-1575 nm at 1 dBm)
Source Spontaneous Emission 1520 To 1570	less than minus 55 dB/0.1 nm (1520-1570 nm)
Source Spontaneous Emission Full Range	less than minus 45 dB/0.1 nm class on the wider 8168F SSE row
Minimum Output Power	minus 7 dBm
Minimum Output Power Option 003	minus 47 dBm
Power Linearity Option 003	plus or minus 0.3 dB with Option 003
Power Flatness Versus Wavelength	plus or minus 0.1 dB (plus or minus 0.2 dB over 1450-1590 nm footnote)
Peak Power Typical	greater than plus 8 dBm peak typical (8168D/E/F comparison table)
Output Isolation Typical	greater than 15 dB between 1490 and 1575 nm, greater than 12 dB full range (8168E/F note)
Laser Safety Class	Class IIIb FDA / Class 3A IEC for 8168F (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

PARAMETER	VALUE
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

Numeric rows from HP/Agilent 8167B and 8168D/E/F specification table (8168F column) and supplementary characteristics. Footnote 2 typical plus or minus 0.001 nm is the inner-band wavelength-meter vacuum condition on that sheet.

Ordering Information

OPTION	DESCRIPTION
Option 003	attenuator to minus 47 dBm plus or minus 0.03 dB / 1 hour power stability

Laser Safety Class: Class IIb FDA / Class 3A IEC for 8168F (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 m

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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NIST-traceable calibration · SAM registered ·
30-day returns
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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.