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Data Sheet
August 13, 2026

HP / AGILENT

HP / Agilent 8168E 1475-1575nm Tunable Laser Source (TLS)

HP / Agilent 8168E Tunable Laser Source 1475 to 1575 nm The HP/Agilent 8168E isastandalone C-band class tunable laser source covering 1475 to 1575 nm with 0.001 nm wavelength resolution. Peak output is typically greater than +1 dBm, with greater than 0 dBm from 1500 to 1570 nm and greater than -10 dBm across the full band. Coherence control, sidemode suppression greater than 40 dB typical, and HP-IB control support DWDM component and amplifier stimulus on the bench. C-band tunable stimulus for passive components; EDFA characterization at moderate power; swept-wavelength test with HP-IB automation; bench TLS where 8164 modular systems are not required. The HP/Agilent 8168E isastandalone C-band class tunable laser source covering 1475 to 1575 nm with 0.001 nm wavelength resolution. Peak output is typically greater than +1 dBm, with greater than 0 dBm from 1500 to 1570 nm and greater than -10 dBm across the full band. Coherence control, sidemode suppression greater than 40 dB typical, and HP-IB control support DWDM component and amplifier stimulus on the bench. C-band tunable stimulus for passive components; EDFA characterization at moderate power; swept-wavelength test with HP-IB automation; bench TLS where 8164 modular systems are not required.

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

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NAICS 423690 · 811210 · 541380

This unit

The HP/Agilent 8168E is a tunable laser source (TLS) engineered for precision characterization of optical components across the C-band and L-band regions. Operating from 1475 nm to 1575 nm with 0.001 nm resolution and ±0.035 nm accuracy, it delivers stable, low-noise output power ranging from -7 dBm to greater than +1 dBm typical. The instrument provides independent control of wavelength and output power, with wavelength stability better than ±100 MHz and output power stability of ±0.03 dB. A built-in sidemode filter ensures true single-mode operation across the full tuning range, with spectral linewidth of 100 kHz (coherent control OFF) or 50–500 MHz (coherent control ON). Side mode suppression ratio exceeds 40 dB. The 8168E integrates with the Agilent 8164A Lightwave Measurement System via HP-IB/GPIB interface and supports independent parameter adjustment through its user-friendly control panel. Auto-realignment and self-test functions streamline operation and maintenance. Technical Specifications Wavelength range: 1475–1575 nm Wavelength resolution: 0.001 nm at 1550 nm Wavelength accuracy: ±0.035 nm or ±0.1 nm Wavelength stability: +1 dBm (typical) Output power stability: ±0.03 dB Spectral linewidth: 100 kHz typical (coherent control OFF); 50–500 MHz typical (coherent control ON, 1500–1570 nm) Side mode suppression ratio: > 40 dB Fiber output: 9/125 µm single-mode fiber with integrated sidemode filter Interface: HP-IB/GPIB Power input: 100–240 Vrms ±10%, 260 VA maximum Operating temperature: 10 °C to 35 °C Storage temperature: -40 °C to +70 °C Dimensions: 145 mm H × 426 mm W × 545 mm D Weight: 18 kg net (21 kg shipping) Laser classification: Class 1 (FDA 21 CFR 1040.10); Class 3A (IEC 825-1, 1993) Key Features Independent wavelength and power control Built-in sidemode filter for true single-mode output Auto-realignment and self-test capabilities Polarization-maintaining fiber option (Option 007) Built-in optical attenuator option (Option 003, 40 dB attenuation) Multiple connector options (straight contact, angled contact, non-contact) Typical Applications Optical component characterization and testing Telecommunications system calibration Optical networking component validation Wavelength-dependent loss and return loss measurements Compatibility & Integration Operate within the Agilent 8164A Lightwave Measurement System. Integration with HP 8153A Lightwave Multimeter enables loss, return loss, and coupling ratio measurements. Agilent 81000xI Series optical interface connectors available separately.

Features & description

From manufacturer datasheet

Features

• 1475 to 1575 nm continuous tuning • 0.001 nm resolution (125 MHz at 1550 nm) • Coherence control on/off linewidth modes • Option 003 built-in attenuator extends minimum power • Standalone TLS (not an 816x plug-in module)

8168E Characteristics / Specifications

PARAMETER	VALUE
Model	8168E
Manufacturer	Hewlett Packard / Agilent
Instrument Type	Standalone tunable laser source
Wavelength Range	1475 nm to 1575 nm
Absolute Wavelength Accuracy Typical	plus/minus 0.1 nm; plus/minus 0.035 nm (1475 to 1575 nm class with meter control notes)
Wavelength Resolution	0.001 nm (125 MHz at 1550 nm)
Wavelength Stability	less than plus/minus 100 MHz (typ over 1 hour at constant temperature)
Wavelength Repeatability	plus/minus 0.035 nm (1475 to 1575 nm); typ plus/minus 0.001 nm with meter
Sidemode Suppression Typical	greater than 40 dB (1500 to 1570 nm at 0 dBm)
Source Spontaneous Emission 1500 To 1570 nm	less than -45 dB/0.1 nm
Source Spontaneous Emission Full Band	less than -35 dB/0.1 nm (1475 to 1575 nm)
Relative Intensity Noise Typical	less than -145 dB/Hz
Linewidth Coherence Off Typical	100 kHz
Effective Linewidth Coherence On	50 to 500 MHz (1500 to 1570 nm)
Tuning Speed Typical 1/10/100 nm	200 ms / 300 ms / 2 s
Tuning Speed With Option 0	250 ms / 300 ms / 2 s
Peak Output Power Typical	greater than +1 dBm
Output Power 1500 To 1570 nm	greater than 0 dBm
Output Power Full Band	greater than -10 dBm (1475 to 1575 nm)
Minimum Output Power	-10 dBm
Minimum Output Power With Option 0	-50 dBm
Power Linearity	plus/minus 0.1 dB (plus/minus 0.3 dB with Option 003)
Power Stability 1 Hour	plus/minus 0.03 dB (typ plus/minus 0.01 dB)

PARAMETER	VALUE
Power Repeatability Typical	plus/minus 0.04 dB
Power Flatness Versus Wavelength	plus/minus 0.1 dB
Laser Safety	Class 1 FDA; Class 3A IEC 825-1 (1993) for 8168D/E class
Warmup Time Typical	less than 1 hour
Recommended Recalibration Period	2 years
Related Narrower Sibling	8168D 1490 to 1565 nm
Related Wider Sibling	8168F 1450 to 1590 nm
Alias	HP 8168E; Agilent 8168E
Absolute wavelength accuracy	Typical: plus/minus 0.1 nm; plus/minus 0.035 nm (1475 to 1575 nm class with meter control notes)
Linewidth	Coherence Off Typical: 100 kHz
Effective linewidth	Coherence On: 50 to 500 MHz (1500 to 1570 nm)
Power repeatability	Typical: plus/minus 0.04 dB
Power stability	1 Hour: plus/minus 0.03 dB (typ plus/minus 0.01 dB)
Relative intensity noise	Typical: less than -145 dB/Hz

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	8168E
Manufacturer	Hewlett Packard / Agilent
Instrument Type	Standalone tunable laser source
Wavelength Range	1475 nm to 1575 nm
Absolute Wavelength Accuracy Typical	plus/minus 0.1 nm; plus/minus 0.035 nm (1475 to 1575 nm class with meter control notes)
Wavelength Resolution	0.001 nm (125 MHz at 1550 nm)
Wavelength Stability	less than plus/minus 100 MHz (typ over 1 hour at constant temperature)
Wavelength Repeatability	plus/minus 0.035 nm (1475 to 1575 nm); typ plus/minus 0.001 nm with meter
Sidemode Suppression Typical	greater than 40 dB (1500 to 1570 nm at 0 dBm)
Source Spontaneous Emission 1500 To 1570 nm	less than -45 dB/0.1 nm
Source Spontaneous Emission Full Band	less than -35 dB/0.1 nm (1475 to 1575 nm)
Relative Intensity Noise Typical	less than -145 dB/Hz
Linewidth Coherence Off Typical	100 kHz
Effective Linewidth Coherence On	50 to 500 MHz (1500 to 1570 nm)
Tuning Speed Typical 1/10/100 nm	200 ms / 300 ms / 2 s
Tuning Speed With Option 003	250 ms / 300 ms / 2 s
Peak Output Power Typical	greater than +1 dBm
Output Power 1500 To 1570 nm	greater than 0 dBm
Output Power Full Band	greater than -10 dBm (1475 to 1575 nm)
Minimum Output Power	-10 dBm
Minimum Output Power With Option 003	-50 dBm
Power Linearity	plus/minus 0.1 dB (plus/minus 0.3 dB with Option 003)
Power Stability 1 Hour	plus/minus 0.03 dB (typ plus/minus 0.01 dB)
Power Repeatability Typical	plus/minus 0.04 dB

PARAMETER	VALUE
Power Flatness Versus Wavelength	plus/minus 0.1 dB

Option 023 Power Penalty: reduce by 1 dB
Option 003 Power Penalty: reduce by 1.5 dB
Option 007 Power Penalty: reduce by 1 dB

Specifications

PARAMETER	VALUE
Laser Safety	Class 1 FDA; Class 3A IEC 825-1 (1993) for 8168D/E class
Warmup Time Typical	less than 1 hour
Recommended Recalibration Period	2 years
Related Narrower Sibling	8168D 1490 to 1565 nm
Related Wider Sibling	8168F 1450 to 1590 nm
Alias	HP 8168E; Agilent 8168E

Notes
Column values from HP/Agilent 8167B/8168D/E/F tunable laser source specification tables. Confirm installed options 003/007/023 before applying power-penalty rows.

Ordering Information

OPTION	DESCRIPTION
Option 003	built-in attenuator extends minimum power
Option 023	Power Penalty: reduce by 1 dB
Option 007	Power Penalty: reduce by 1 dB

Laser Safety: Class 1 FDA; Class 3A IEC 825-1 (1993) for 8168D/E class Warmup Time Typical: less than 1 hour Recommended Recalibration Period: 2 years Related Narrower Sibling: 8168D 1490 to 1565 nm Related Wider Sibling: 8168F 1450 to 1590 nm Alias: HP 8168E; Agilent 8168E Notes Column values from HP/Agilent 8167B/8168D/E/F tunable laser source specification tables. Confirm installed options 003/007/023 bef

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
788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
https://aumictechlabs.com

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