

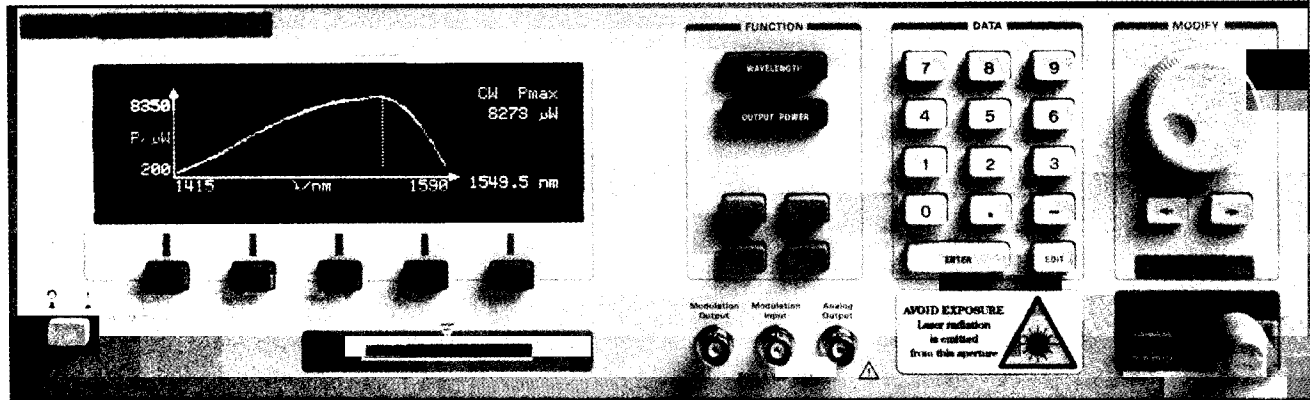
Optical Component Test

414

Tunable Laser

HP 8168D
HP 8168E
HP 8168F

- Output power up to +8 dBm
- Tuning linearity ± 1 pm possible
- 2 year re-calibration period
- Auto-realignment of laser cavity for even better reliability



HP 8168D/E/F Tunable Laser Sources

Tunable laser sources are basic tools for characterizing and testing optical amplifiers and components. The HP 8168D/E/F Tunable Laser Sources operate in the 1550 nm transmission window and cover the wavelength range needed to test dense WDM component designs. All three products are equipped with a built-in sidemode filter to ensure true single-mode operation over the full wavelength range. Output power and wavelength are selectable independent from each other.

Wavelength scans, which require an output power that is stable over time and flat across all wavelengths, can be performed reliably, accurately and quickly. Built-in software allows single or dual channel loss, return loss and coupling ratio measurements together with an HP 8153A Lightwave Multimeter. The instruments' dependability and reliability make them perfect for integration into a fully-automated production test environment.

Specifications

	HP 8168D	HP 8168E	HP 8168F
Wavelength range	1490 nm to 1565 nm	1475 nm to 1575 nm	1450 nm to 1590 nm
Absolute wavelength accuracy, typical	± 0.2 nm	± 0.1 nm	± 0.1 nm
Relative wavelength accuracy	± 0.1 nm	± 0.035 nm, typ. ± 0.001 nm*	± 0.035 nm, typ. ± 0.001 nm*
Wavelength resolution	0.001 nm	0.001 nm	0.001 nm
Wavelength stability	$< \pm 1$ GHz	$< \pm 100$ MHz	$< \pm 100$ MHz
Wavelength repeatability	± 0.1 nm	± 0.035 nm, typ. ± 0.001 nm*	± 0.035 nm, typ. ± 0.001 nm*
Linewidth (typical)	100 kHz	100 kHz	100 kHz
 broadened (effective, typical)	30 - 500 MHz	50 - 500 MHz	50-500 MHz
Signal to source spontaneous emission ratio	> 30 dB/1 nm	> 35 dB/1 nm	> 45 dB/1 nm
Signal suppression ratio	—	> 40 dB	> 50 dB
Maximum output power (peak, typical)	-3 dBm	-7 dBm	+8 dBm

* Performance when controlled with appropriate wavelength meter

Dimensions: 145 mm H, 426 mm W, 545 mm D (5.8" x 16.9" x 21.6")
Weight: Net, 18 kg (40 lb.); shipping, 21 kg (46 lb.)
Power: 100 to 240 Vrms $\pm 10\%$, 260 VA max.

Key Literature

Technical Specification, 5964-9000E
Configuration Guide, 5964-9001E

Ordering Information

	Price
HP 8168D Tunable Laser Source	\$28,900
HP 8168E Tunable Laser Source	\$51,145
HP 8168F Tunable Laser Source	\$64,575
Options (not available for all instruments and in all combinations)	
Opt 021 Straight Contact Output Connector	\$0
Opt 022 Angled Contact Output Connector	\$0
Opt 023 Angled Non-Contact Output Connector (Diamond HMS-10/HP/HRL)	\$0
Opt 003 Built-in Variable Attenuator	+\$5,945
Opt 007 Polarization Maintaining Fiber	+\$5,380
HP 81000A/I/FI/GI/KI/NI/PI/SI/VI/WI Connector Interface	\$177