

228系列光通讯专用单波长计

特点：

- 波长测量精度可达 ± 0.3 pm
- 内置标准稳频HeNe激光器实现连续校准
- 测量置信水平 $\geq 99.7\%$ ，NIST可追溯
- 可以同时实现光功率测量，准确度可达 ± 0.5 dB
- 波长测量范围700-1650 nm
- 测量速率10 Hz
- 高灵敏度 -30 dBm (1 μ W)
- 便捷的触摸屏显示测量数据
- 可采用USB、Ethernet、GPIB进行通讯
- 设计用于生产环境的坚实结构



228系列波长计采用干涉仪实现连续激光器波长的高精度测量。长时间的性能通过内置标准稳频HeNe激光器进行连续校准得到保证。更重要的是228具有测量时间短、操作简单、结构坚实的特色，可以满足研发与生产工程师的期许。

技术参数

MODEL	228A	228B
Optical Signal	CW only	
Wavelength Accuracy ^{1,2}	± 0.2 parts per million (± 0.3 pm at 1550 nm)	± 0.65 parts per million (± 1.0 pm at 1550 nm)
Repeatability ^{3,4}	± 0.1 part per million (± 0.15 pm at 1550 nm)	± 0.3 parts per million (± 0.5 pm at 1550 nm)
Calibration	Continuous - built-in stabilized single-frequency HeNe laser	Continuous - built-in standard HeNe laser
Units ⁵	nm, cm^{-1} , THz	
POWER Calibration Accuracy ⁶	± 0.5 dB (± 30 nm from 1310 and 1550 nm)	
Maximum Bandwidth ⁷	1 GHz (8 pm at 1550 nm)	10 GHz (80 pm at 1550 nm)
Sensitivity ^{4,6}	1250 – 1650 nm: -30 dBm (1 μ W) 1000 nm: -25 dBm (3 μ W) 700 nm: -10 dBm (100 μ W)	
Measurement Rate (Time)	10 Hz (0.1 S)	
Measurement Modes	Wavelength and power Maximum, minimum, delta (max-min) of wavelength and power over time Current, start, drift (current-start) of wavelength and power over time	
Optical Input	9/125 μ m single-mode fiber (FC/UPC or FC/APC)	
Instrument Interface	Library of commands (SCPI) via USB 2.0, Ethernet, and optional GPIB	

1. Defined as measurement uncertainty, or maximum wavelength error, using a coverage factor of 3 providing a confidence level of $\geq 99.7\%$.

2. Traceable to an NIST standard (SRM 2517a).

3. For a 10 minute measurement period given at three times the standard deviation (3σ).

4. Characteristic performance, but non-warranted.

5. Data in units of nm and cm^{-1} are given as vacuum values.

6. Performance at other wavelengths can be determined from graphs that are available upon request.

7. Bandwidth is FWHM. When bandwidth is greater, wavelength accuracy is reduced.