MWM Laser Wavemeter

The Santec Laser Wavemeter is a precision compact laser wavelength measurement device, and optical spectrum analyser, with on-unit display and ethernet/USB connectivity standard. Use it standalone or with the included Windows GUI software package.
Unlike interferometric wavemeters, our device clearly reveals multimode laser operation, making it particularly suitable for use with external cavity diode lasers and atom cooling and trapping experiments.
At prices so low you can afford to put a wavemeter on every laser in your lab, to know when your laser is unlocked or multimoding.

Features

- Picometre (<GHz) accuracy
- Picowatt sensitivity
- Any wavelength from 370 – 1120 nm[†]
- Instantly identifies multimode input
- Fast: up to 1250 measurements per second
- CW or pulsed laser input
- Built-in PID feedback with analogue output
- Ethernet and USB standard

Applications

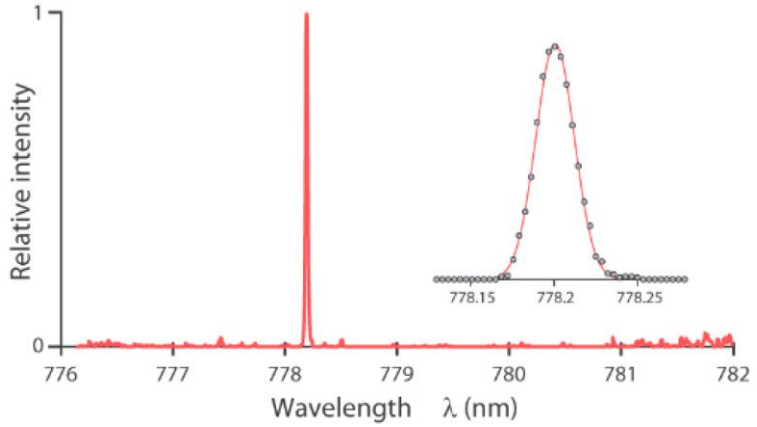
- Laser frequency diagnosis and testing
- Identifying laser multimode behaviour
- Determining absorption lines
- Gas spectrometry
- Raman fluorescence

Laser Wavemeter

Specifications MWM

Wavelength/frequency	
Wavelength range	370 – 1120 nm Supplied calibrated at one wavelength e.g. 780 ± 12 nm
Input power requirement	<1 pW (1 picowatt); max 30 nW
Precision	100 MHz (0.1 pm) at 780 nm
Accuracy	±1 GHz / ±0.001nm at 780nm, at time of calibration
Optical resolution	< 0.02 nm (σ std dev, wavelength dependent)
Dynamic range	> 35 dB (>50dB with HDR)
Electronics	
Display	Built-in LCD and host computer
Interface	Windows GUI
PID feedback	12-bit DAC output, 0.5 mV resolution, 10 Hz bandwidth
Readout	Typically 20 per second, up to 100 /s, host dependent
Interface	
Ethernet	10/100 TP RJ45
USB	USB2.0, plug type USB-B (350 mA with display on)
SMA	Analogue output, ±2.5 V, for PID feedback control
Power consumption	5 W
Inputs/outputs	
Optical input	FC single mode fiber
DAC	12-bit output, ±2.5 V, 0.5 mV resolution
Dimensions	
Dimensions (approx.)	165 x 85 x 70 mm (LxWxH)

†Note: the MWM operates over a small wavelength range, e.g. 780 ± 12 nm. Operation in a different wavelength range requires mechanical adjustment and recalibration.



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