

moglabs

FZW Fizeau Laser Wavemeter



The MOGLabs FZW Fizeau Laser Wavemeter is a precision compact self-contained wavemeter: *no host computer required.*

It measures from 350 to 1120nm with absolute accuracy better than 600MHz. On-unit display, ethernet and USB connectivity, and PID locking, are standard. Time-series measurements at up to 250 measurements per second can be plotted on the display or on a host computer. The device is easily integrated with common lab data acquisition systems using simple text commands, and wrappers for LabView, python and matlab.

Features

- 600 MHz absolute accuracy, 400 to 1100nm (measurement range 350 to 1120nm)
- Self-contained with colour display
- Solid fused silica etalons
- 350 measurements per second
- Built-in PID feedback with analogue output
- Ethernet and USB standard

Fizeau Wavemeter

Specifications FZW600

Wavelength/frequency

Wavelength range	400nm – 1120nm
Units	nm (vac), nm (air; NTP), THz, cm ⁻¹
Input power requirement	10nW @ 10 meas/sec; 500nW at 350 meas/sec (550nm)
Accuracy	600 MHz
Resolution	10 MHz (full speed); 1 MHz (100-sample average)
Exposure	100µs to 1 s
Measurement rate	350 /s with 500 µW or more input power
Fizeau interferometers	4; smallest FSR = 7.5GHz
Calibration	Generally not required. Use stabilised HeNe or other well-known laser source, e.g. at 12-month intervals.
Warm-up time	Stated accuracy within 10 minutes

Electronics

Display	Built-in 320x240 colour TFT LCD
PID feedback	12-bit DAC output, 0.5mV resolution
Power	+5V 600mA via USB or separate DC jack
On/off	Rocker switch on rear

Communications

Ethernet	10/100 TP RJ45
USB	USB2.0, plug type USB-B (also used for power)
SPI	Internal; for OEM implementations

Inputs/outputs

Optical input	FC/PC, singlemode or 62.5µm multimode fibre
SMA DAC out	12-bit output, ±2.5V, 0.5mV resolution
Power (alternate to USB power)	+5V DC jack, + on centre 2.5mm pin

Dimensions

Dimensions	120mm x 146mm x 81mm (DxWxH); 0.7kg
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