PocketHawk™ UV-Vis / NIR Spectrometer

A compact, high-performance UV-Vis and NIR spectrometer for portable, OEM, and embedded integration

The PocketHawk™ spectrometer delivers high-performance UV-Vis and NIR spectral analysis in an ultra-compact optical platform. Its crossed Czerny–Turner design provides high resolution, sensitivity, and low stray light while supporting both CCD/CMOS (UV-Vis) and InGaAs (NIR) sensor options. Designed for miniaturization and seamless integration, the PocketHawk features USB-powered operation, fast acquisition speeds, and flexible I/O, making it well suited for portable, embedded, and OEM analytical systems.

APPLICATIONS

- UV-Vis and NIR spectroscopy and optical analysis
- Thin-film, biomedical, and food analysis
- Portable and handheld analytical instruments
- Process and quality control monitoring
- Material identification and composition analysis
- OEM and embedded system integration

KEY PERFORMANCE

Wavelength Range: 200-1050 nm (UV-Vis), 900-1700 nm (NIR)

Optical Resolution: 2.2 – 12 nm (UV-Vis), 5–30 nm (NIR)

Signal-to-Noise Ratio: 200–330 (UV-Vis), up to 6500 (NIR)

Dynamic Range: up to 8000

Integration Time: 100 µs – 15 s

Stray Light: <0.2%

Thermal Stability: <0.7 nm / °C

Interface: USB 2.0, 6x programmable digital I/O

PocketHawk™ Specifications

	PH1014/ PH2014	PH1034/ PH2034	PH3134/ PH4134
Wavelength Range	300 nm – 1050 nm	200 nm – 1050 nm	
Sensor Type	CCD	CMOS	
Pixels	3000	512	1024
SNR	200	350	
Dynamic Range	2200	5500	5000
Stray Light	<0.2%		<0.3%
Thermal Stability	< 0.069 nm / °C (NIR)		
Dark Noise (avg)	30	12	13
A/D Converter	16 - bits		
Integration Time	1.5 ms	0.1 ms	21 µs
Operating Temperature	0°C to +50°C		
Grating	Various grating options		
Dimensions	65 (L) × 65 (W) × 29.8 (H) mm		