



## Headwall Photonics

# Nanospec Miniature Spectrometers

Headwall's Nanospec family of stackable miniature spectrometers offers a very compact, high performance spectral solution for a broad wavelength range. These three distinct spectrometers can be "stacked" or configured to provide application-specific performance across a spectral range from 350 nanometers to 2500 nanometers.

Handheld & Field-Based Applications

Compact, Rugged Spectral Engines

High Resolution

Very Low Stray Light

Originally utilized for spectral analysis in harsh space environments, Headwall's Nanospec products are designed for field-based applications and hand-held instruments where system performance is critical. All Nanospec spectrometers are lightweight, compact instruments featuring rugged construction with no moving parts. These products are built with Headwall's original holographic diffraction gratings and offer very high signal to noise capability with very low stray light.

The product family is comprised of spectrometer modules which cover three spectral ranges:

Visible	350 – 1000 nm
NIR	900 – 1700 nm
SWIR	1600 – 2500 nm

As spectral engines, the Nanospec products are easily integrated into OEM systems to reduce product development costs and time to market. Custom spectral ranges are available.

## Headwall Photonics Nanospec Spectrometers

Headwall's Nanospec family of micro-spectrometers offer versatile, easily customized configurations designed to be used with a variety of linear array detectors. This compact spectral engine offers a cost-effective optical system with high resolution, high throughput (f/3.0), and excellent spectral accuracy.

Headwall Photonics manufactures original holographic gratings and application-specific spectral engines for wavelength management and spectroscopic analysis. Headwall offers accurate modeling, rapid prototyping, and collaborative product design capabilities throughout the OEM product lifecycle.



### Applications

- Handheld instruments
- Point of care diagnostics
- Forensics & first responder analysis
- Chemical, biological spectral sensing

### Specifications

<b>Aperture</b>	<b>f/3.0</b>
<b>Resolution (FWHM)</b>	<b>3-5 nm</b>
<b>Stray Light</b>	<b>&lt; 10<sup>-4</sup></b>
<b>Fiber Optic Adapter</b>	<b>SMA 905</b>
<b>Acquisition Electronics</b>	<b>16 bit</b>
<b>Acquisition Software</b>	<b>EasySpec™</b>
<b>Dimensions with standard detector</b>	
Length	55 mm
Width	24 mm
Height	48 mm

### Available Detector Arrays

- Silicon - 128, 256, 512 elements**
- InGaAs - 256 elements**
- Extended InGaAs - 256 elements**

For more information contact:  
Headwall Photonics, Inc.  
Tel: 978-353-4010  
Information@HeadwallPhotonics.com  
www.HeadwallPhotonics.com



Data subject to change.  
Copyright © 2005 Headwall Photonics, Inc.  
618050-NMS