

Headwall Photonics

## Summit™ Line of Configurable Spectrometers

**Application-Specific**

**Superior Optical  
Performance**

**Compact and Versatile**

Headwall's Summit™ line of configurable spectrometers offer solutions for demanding applications for both end-users and OEM customers. The Model 6300 family of Configurable Array Spectrometers offers a superior instrument for end-users demanding superb optical performance. OEM customers with application-specific requirements will find the Model 6400 OEM Spectral Engine a compact and versatile subsystem. Summit™ spectrometers are exceptionally robust, high performance single-beam spectrometers designed for the most demanding applications. The Summit™ Model 6300 and 6400 offers application-specific performance utilizing Headwall's custom holographic gratings.

A 512 pixel silicon Photo Diode Array detector, when coupled with Headwall's ultra-low noise 16-bit electronics, offers superior dynamic range and signal/noise performance. EasySpec™ acquisition and display software includes an easy and intuitive user interface with pull-down menus and function button operation, and also offers a complete library of DLL subroutines for easy programming of customized applications. Data can be easily exported into other spectral processing environments for further manipulation, quantitative analysis, and process control analysis.

The Summit line of configurable spectrometers offers pre-configured, application-specific models for end-users with demanding application requirements. Customization and additional options are available to OEM customers utilizing the Summit family as high volume spectral engine.

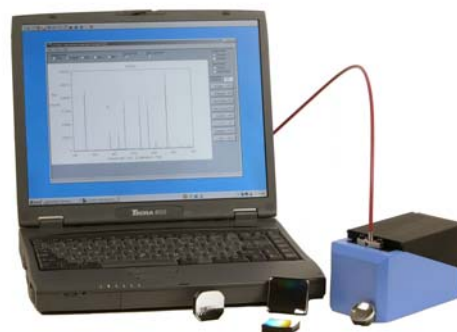
Headwall Photonics manufactures original holographic diffraction gratings and precision spectrographs for wavelength management and spectroscopic measurement. Headwall offers accurate modeling, rapid prototyping, and collaborative product design capabilities.

## Spectral Range and Resolution (based on 25 micron slit)

<u>Application</u>	<u>Model</u>	<u>Wavelength</u>	<u>FWHM Resolution</u>
UV	HP 6310/6410	190-400 nm	~ 1 nm
UV-Vis	HP 6320/6420	190-800 nm	~ 4 nm
Fluorescence	HP 6330/6430	280-715 nm	~ 3 nm
Colorimetric	HP 6340/6440	375-750 nm	~ 3 nm
SW-NIR	HP 6350/6450	600-1100 nm	~ 2 nm

## Optical Performance Performance

<b>Design:</b>	Original concave holographic grating in single beam configuration	
<b>Focal Length:</b>	~ 100 mm	
<b>Aperture:</b>	f/2.5	
<b>Dispersion:</b>	Model 6x10	0.41 nm/pixel
	Model 6x20	1.19 nm/pixel
	Model 6x30	0.85 nm/pixel
	Model 6x40	0.73 nm/pixel
	Model 6x50	1.19 nm/pixel
<b>Stray Light:</b>	0.01%	
<b>Dynamic Range:</b>	65,536:1	



## Electrical Specifications

<b>Power/Std Adapter:</b>	120-240vAC, 50/60Hz
<b>Std AC Adapter Output:</b>	9vAC, 500mA
<b>Optional Power:</b>	9vDC battery pack; or 12vDC power adapter
<b>Source:</b>	Pulsed or continuous sources
<b>Detector:</b>	512 pixel silicon photodiode array Pixel size: 25microns x 2.5mm Full well capacity – 1.5 x 10 <sup>8</sup> electrons
<b>A/D:</b>	16 bit precision; 125KHz conversion rate
<b>Integration Time:</b>	20ms to 4 minutes
<b>Scan rate:</b>	4 spectra/sec

## Software

EasySpec™ acquisition and display software for Windows 98 or higher. DLL sub-routine library for easy programming of data collection and export into industry standard applications.

To find out more visit

[www.HeadwallPhotonics.com](http://www.HeadwallPhotonics.com)

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