

# MicroHR Series

Short Focal Length Imaging Spectrometers

ELEMENTAL ANALYSIS FLUORESCENCE IRATINGS & OEM SPECTROMETERS OPTICAL COMPONENTS CUSTOM SOLUTIONS PARTICLE CHARACTERIZATION RAMAN / AFM-RAMAN / TERS SPECTOSCOPIC ELLIPSOMETRY

Available as an imaging spectrograph or a scanning monochromator, HORIBA's MicroHR spectrometer offers excellent flexibility and performance in a small and affordable package.





HORIBA

The MicroHR 140 mm spectrometer puts a lot of versatility and high performance into a very small package. With a footprint smaller than a sheet of paper, the MicroHR provides better than 0.3 nm resolution with either a CCD array or an exit slit with a PMT or solid state detector. It can be configured as a simple manually tunable spectrograph or an automated dual exit spectrometer capable of acquiring data from 180 nm to 20 µm with the selection of (appropriate) diffraction gratings.

It is a truly transportable spectrometer, comfortable in the field or just a small corner of your lab bench. It also fits very comfortably in your budget, providing exceptional performance at an entry level price.

### **Features and Benefits**

- 140 mm f/3.9 Czerny-Turner with imaging optics
- Rugged solid milled construction
- Interchangeable dual grating turrets
- Configurable to your requirements
- USB 2.0 interface on automated versions

## **Applications**

A rugged, high throughput optical system, the MicroHR is an ideal, affordable tool for a wide range of spectroscopic applications such as:

- UV-NIR Absorption
- Laser characterization
- Fluorescence
- Atmospheric studies
- Source characterization



## **Specifications**

		MicroHR (Manual)	MicroHR (Auto)
Focal Length		140 mm	140 mm
<b>Entrance Aperture Ratio</b>		f/3.88	f/3.88
Grating Mount		Interchangeable single grating	Interchangeable dual grating turret
Grating Size		32 mm x 32 mm	32 mm x 32 mm
Scanning Range**		0 – 1000 nm	0 – 1500 nm
Multi-channel coverage**		140 nm over 26.7 mm array	140 nm over 26.7 mm array
Focal Plane		27 mm wide x 10 mm high	27 mm wide x 10 mm high
Image Magnification at Exit Slit		1.1	1.1
Spectral Dispersion**		5.25 nm/mm at 400 nm	5.25 nm/mm
Spectral Resolution		0.3 nm (w/ 26 µm pixel array)	0.25 nm (w/ exit slit & PMT)
Wavelength Accuracy**		± 0.5 nm	± 0.25 nm
Wavelength Repeatability**		± 0.15 nm	± 0.04 nm
Slits		Fixed or micrometer	Fixed or micrometer
Computer Interface			USB 2.0
Dimensions:	Length	7 in (178 mm)	7 in (178 mm)
	Width	6 in (152 mm)	Single Exit 8.1 in (206 mm), Dual Exit 10.5 in (267 mm)
	Height	5.5 in (140 mm)	5.5 in (140 mm)**
Optical Axis Height		3.5 in (89 mm)	3.5 in (89 mm)
Weight		8.8 lb (4.0 kg)	Single Exit 10.0 lb (4.5 kg), Dual Exit 11.0 lb (5.0 kg)

All measurements taken at 633 nm

\* Actual coverage on the array is 200 nm to 1400 nm however the detector is sensitive only to 1100 nm

\*\* for 1200 g/mm grating at 400 nm

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