

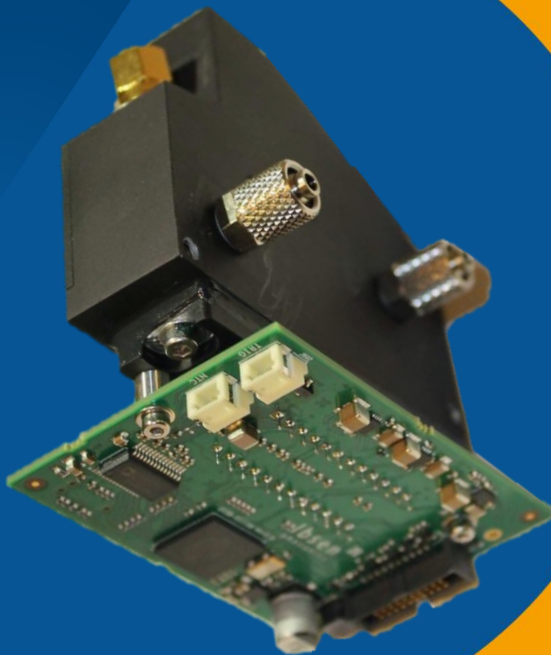
**Compact and cost efficient**  
**Ideal for deep UV portable solutions**



Ibsen's FREEDOM HR-DUV spectrometers combine compactness and low cost with high performance and are the ideal OEM solution for all those handheld and portable system applications where performance cannot be sacrificed.

The FREEDOM HR-DUV FHW-380 is ideal for applications like Laser Induced Breakdown Spectroscopy (LIBS).

Furthermore, if the specifications do not match your requirements, Ibsen can customize an OEM spectrometer to meet your exact needs.

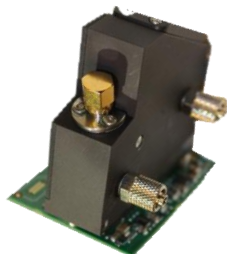


## **FREEDOM HR-DUV**

**178 – 409 nm OEM Spectrometer**

# FREEDOM HR-DUV 178 – 409 nm OEM Spectrometer

## Key Benefits



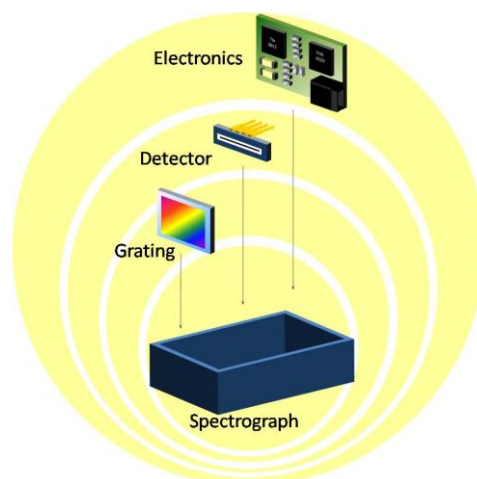
- **High resolution**
- **Compact size**
- **Flexible detector and electronics**
- **Robust and athermal design**

## Specifications

Parameter	FHW-380
Wavelength range	178 - 409 nm
Numerical aperture	0.11
Typical resolution	0.3 nm/FWHM
Stray light	<0.03%
Detector	Hamamatsu S11156 BT-CCD
Interface	Direct interface to detector pins (optional electronics available)
Temperature drift	<0.02 nm/Degree C
Operating temperature range. Non-condensing	-10 to +45 Degree C
Dimensions	61 mm x 65 mm x 19 mm

## Modular Approach

Ibsen's OEM spectrometers are based on a modular design, whereby customers can choose to buy a complete spectrometer, a spectrograph or simply a spectrometer grating, depending on the approach that they prefer. Furthermore, our spectrometers can be fitted to almost any detector and electronics.



Specifications are subject to change without notice.