

Specifications of WaveStar U and WaveStar V

Detector	3000 element CCD
Optics	Proprietary optical design
Spectral response	WaveStar-V 570 -1070nm WaveStar-U 360 -625nm
Wavelength resolution	FWHM 0.5nm
Wavelength peak detection	Proprietary algorithm interpolates pixels and tags peaks with the wavelength value to an accuracy of 0.1nm. The FWHM of each peak is also shown if desired.
Mounting thread	¼" threaded mounting hole
Intensity vs.wavelength	The intensity display is corrected for variations in system sensitivity with wavelength to give a relative intensity accuracy of $\pm 10\%$ over spectral region
Dimensions	80mm x 70mm x 100mm
Optional accessories	SMA fiber adapter, diffusers, ND filters
Connections to PC	Connects to standard parallel port via 3 meter cable. No hardware installation in PC necessary.
Trigger	Photodiode trigger allows capture of single shot events.
Minimum host system requirements	Pentium 200 32MB RAM 10MB HD free, Windows 2000, XP, 2MB 16bit color VGA card one free parallel port.
Performance with pulsed sources	Operates with continuous or pulsed sources at pulse rates from <1Hz up. Special trigger photodiode allows measurement of single pulse events.
Temperature dependence	0.025nm/degC

Examples of Software Features

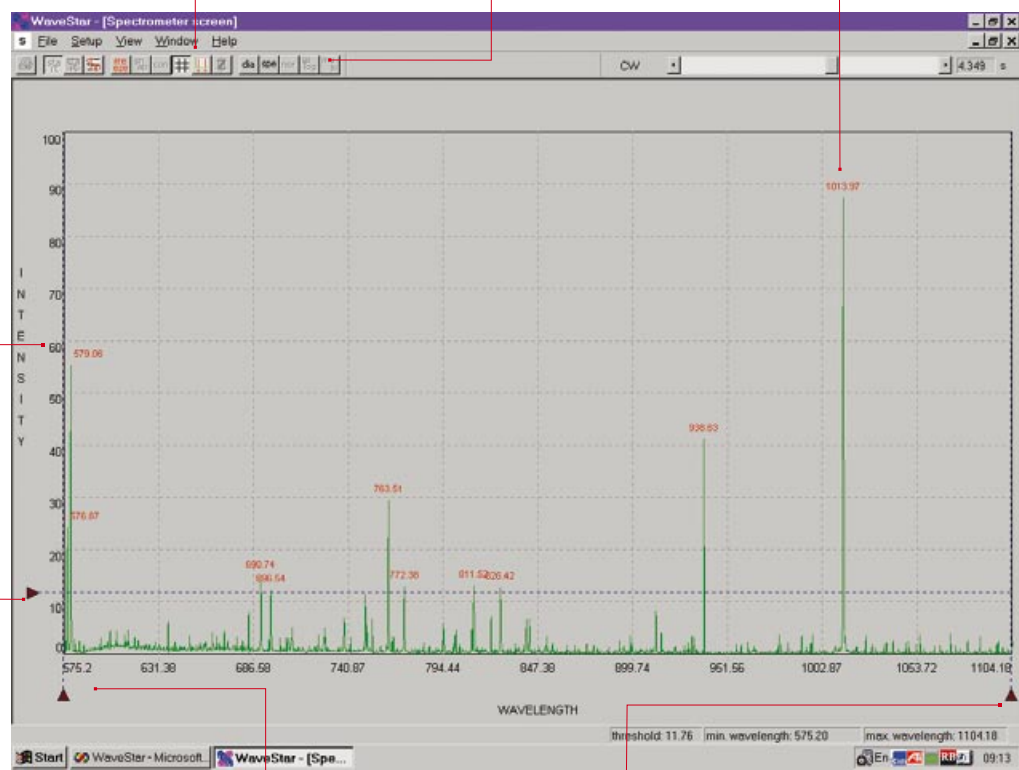
Intensity is corrected for variations in detector sensitivity so spectral curve intensity is proportionally correct

Zoom button blows up wavelength range selected with vertical bars below

Data log with time of peak wavelengths and FWHM

Continuously variable shutter speed from 28 μ s to 7.3s – a dynamic range of >100,000:1

Automatically tags all peaks with the center wavelength to an accuracy of ± 0.1 nm. Will show FWHM as well if desired

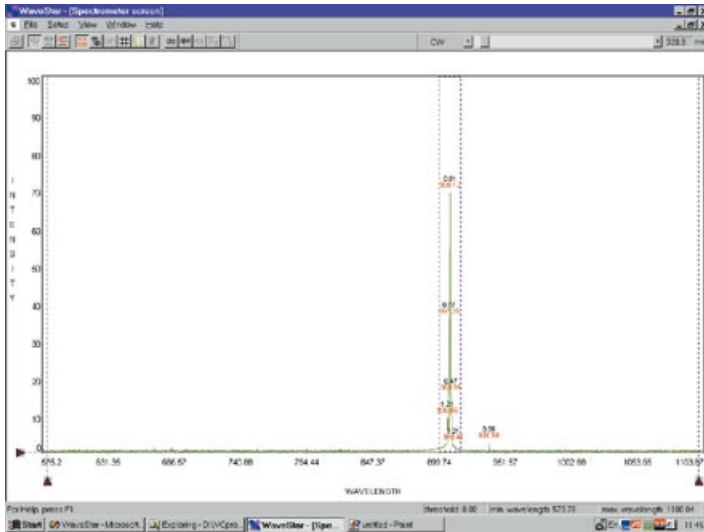


Horizontal bar determines threshold for displaying peak wavelength and FWHM so as not to clutter screen with unwanted data

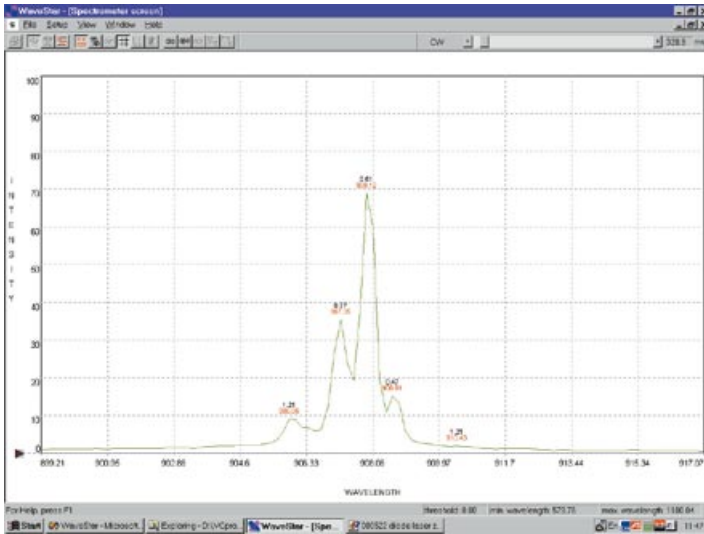
Vertical bars select wavelength region of interest for displaying wavelength and FWHM values and zooming with zoom button

Example of Expanded Wavelength Scale

The first screen shows the spectrum of a pulsed diode laser where the user has selected the region to zoom with the mouse. The second screen shows the zoomed picture from the selected region.



The screen below shows the zoomed region selected in the first screen. Note the resolution of the spectrometer, where the laser longitudinal modes spaced at 1nm intervals are clearly shown. In this view, the FWHM as well as the wavelength is displayed above each peak.



Ordering Information

Item	Description	Ophir P/N
WaveStar V unit for 570-1070nm	Complete ready to install system including head, stand, cables, power supply and software. Not RoHS	1Z02550
WaveStar U unit for 360-625nm	Complete ready to install system including head, stand, cables, power supply and software. Not RoHS	1Z02551

For fiber adapters and accessories available see page 42

Complete ready to install system including sensor, stand, cables, power supply and software. not RoHS.