

## The **RED TIDE** Spectrometer



The new utilitarian Spectrometer  
featuring

- ▶ Preconfigured for 350 nm-1000 nm
- ▶ Excellent resolution (2.0 nm FWHM)
- ▶ Operable with PCs or Data Loggers
- ▶ Low price (US\$1,150.)

## The **RED TIDE** Spectrometer

The Red Tide Spectrometer, also known as the USB650, is the world's most amazing low cost spectrometer. It is both low cost and a truly utilitarian tool that is ideal for many general purpose spectral measurements.

The Red Tide Spectrometer has a pre-configured range of from 350 to 1000 nm and a resolution of ~2.0 nm. It can be used with most all Ocean Optics' accessories to provide many and varied measurements.

## **RED TIDE** Features

- ▶ Preconfigured spectrometer for 350 to 1000 nm range
- ▶ 650 element detector for nominal 2.0 nm resolution
- ▶ Highly cost effective optical tool for most general spectral measurements
- ▶ Can be used for transmittance, absorbance, reflectance and irradiance measurements
- ▶ USB interface for direct, efficient spectrometer-to-computer connection

## **RED TIDE** Design

This utilitarian spectrometer is of an asymmetrical crossed Czerny-Turner optical design with a 42 mm input/ 68 mm output focal length. The detector is a linear silicon CCD array with 650 enabled detector elements (pixels). The input slit is 25  $\mu$ m wide

with the optical signal being received via a fiber optic line, with a 905 SMA connector. The signal to noise ratio is 250:1. The A/D resolution of 12 bits provides a dynamic range of  $2 \times 10^8$  overall. Integration time is variable from 3 ms through 65 s.

## Set-up

There are two configurations for the Red Tide spectrometer. One is a standard spectrometer; the other is a spectrometer

in a UV-VIS and a VIS-NIR version.

The USB650-VIS-NIR is an excellent value as it is a true spectrophotometer that covers the

system which includes an attached tungsten light source and a cuvette sample holder. This latter system is a true spectrophotometer similar to the CHEMUSB4-VIS-NIR system. Both configurations interface to a computer, via USB 2.0 port.

The spectrometer configuration (USB-650) can be used with various Ocean Optics spectrometer accessories, light sources and sampling optics, so as to create application-specific systems for various transmission, absorbance, reflection and emission applications.

The spectrophotometer configuration (USB-650-UV-VIS or USB-650-VIS-NIR) comes both

full visible and some of the near infrared spectrum. On the other hand, purchase of the UV-VIS version is not recommended because of the expense for a limited ultraviolet range addition.

Note that the Ocean Optics "SpectraSuite" software is suggested for the operating software. SpectraSuite is a modular, Java-based spectroscopy software platform that operates on Windows, Macintosh and Linux operating systems, and includes modules for irradiance and color measurement.

## Prices

USB-650	<b>Red Tide</b> Spectrometer, preconfigured, 350-1000 nm	\$1,154.00
USB-650UV	<b>Red Tide</b> Spectrometer, preconfigured, 200-850nm	\$1,429.00
USB-650-VIS/NIR	<b>Red Tide</b> Spectrometer with USB-ISS-VIS	\$1,732.00
P400-2-VIS/NIR	400um Fiber, VIS/NIR, 2m (KB)	\$ 138.00
QP300-1-SR	300um Premium Fiber, solarization-resistant, 1m (BTO)	\$ 174.00
CUV-UV	Cuvette Holder, 1-cm path, 200-2000 nm	\$ 461.00
LS-1	Tungsten Halogen Source, 360-2000 nm, 900 hrs, 3100 K	\$ 577.00
RPH-2	Reflection Probe Holder for SMA 905 connectors	\$ 120.00
WS-1	Diffuse Reflectance Standard, PTFE (KB)	\$ 314.00
CC-3	Cosine Corrector with opaline glass diffusing material	\$ 115.00
ISP-30-6-I	Integrating Sphere, 30 mm, for irradiance	\$1,581.00
SPECTRASUITE	Cross-platform Spectroscopy Operating Software	\$ 199.00*

\*SpectraSuite is priced at \$150. if ordered with a spectrometer.

Note: For additional prices, go to:

<http://www.oceanoptics.com/Products/061008pricelist.pdf>

## Order

To order, you may fax Ancal an order at 1-602-532-7018. In response, you will promptly receive an acknowledgement confirming current prices and noting estimated delivery. Please be aware that in some cases, such as in sales to new customers or in orders for special items, pre-payment of may be required.

Should you want to order via the internet, go to the order section, in the Contact Us site, and follow the instructions for placing the order.

As an authorized distributor of Ocean Optics products, Ancal can process orders for most items manufacturer by Ocean Optics. Such items may be shipped from Ancal or may be shipped directly from Ocean Optics. All prices are US\$ prices in accord with prices published on the price lists herein and on the current Ocean Optics price list.

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