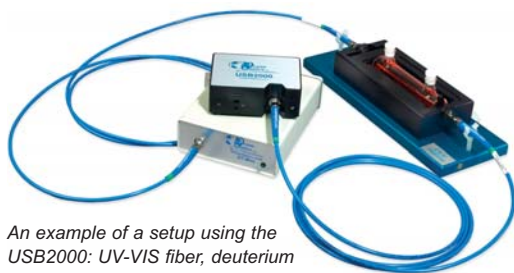




USB2000 Plug-and-Play Spectrometer



An example of a setup using the USB2000: UV-VIS fiber, deuterium tungsten light source and a 10-cm pathlength cuvette holder.

Voted Most Popular

With its small-footprint design and plug-and-play convenience -- its onboard A/D converter ensures a hassle-free instrument-to-PC interface -- the USB2000 has become the most frequently specified miniature fiber optic spectrometer in the world.

Streamlined Start-up Software & Hot Swapping

The USB2000 plugs directly into the USB or serial port of any desktop or notebook PC. Interfacing the USB2000 to a PC via the USB port supports hot swapping of the spectrometer. Our software recognizes and reads data programmed on the USB2000 -- such as calibration coefficients -- saving time and reducing configuration errors. When connected to a PC via USB, the USB2000 draws its power from the computer.

User-configured Setup

The "S" Optical Bench is used in the world's first, and still the best miniature spectrometer. We've sold over 55,000 spectrometer channels for thousands of applications, and we've used that experience to make the most flexible, versatile and cost-effective spectrometer ever built. What makes the "S" bench so special are several options that allow you to optimize the bench for your application. Choose from options such as the size of the entrance slit, the type of grating and detector add-ons for the Sony ILX511 linear CCD array.

USB2000: \$2,199

Specifications			
Dimensions:	89.1 mm x 63.3 mm x 34.4 mm	Order-sorting filters:	OFLV filters and longpass OF-1 filters
Weight:	190 g	Wavelength range:	Grating dependent
Detector:	Sony ILX511 linear silicon CCD array	Optical resolution:	~0.3-10.0 nm FWHM
Detector range:	200-1100 nm	Integration time:	3 ms to 65 seconds
Pixels:	2048 pixels, pixel size of 14 μ m x 200 μ m	Dynamic range:	2 x 10 ⁸ (system); 1300:1 for a single acquisition
Pixel well depth:	~62,500 electrons	Stray light:	<0.05% at 600 nm; <0.10% at 435 nm
Signal-to-noise ratio:	250:1 (at full signal)	Fiber optic connector:	SMA 905 to 0.22 numerical aperture single-strand fiber
Dark noise:	3.2 RMS counts	Power consumption:	90 mA @ 5 VDC
Sensitivity:	400 nm: 75 photons/count, 600 nm: 41 photons/count	Data transfer speed:	Full scans to memory every 13 ms with USB 2.0 or 1.1 port
Optical bench design:	f/4, Asymmetrical crossed Czerny-Turner	Operating systems:	Windows 98/Me/2000/XP, Mac OS X and Linux when using USB port; Any 32-bit Windows OS when using serial port
Focal length:	42 mm input, 68 mm output	Computer interfaces:	USB 2.0 @ 12 Mbps (USB 1.1 compatible); RS-232 (2-wire) @ 57.6 K baud
Entrance aperture:	5, 10, 25, 50, 100 or 200 μ m wide slits or fiber (no slit)		
Gratings:	14 gratings; UV through Shortwave NIR		

USB2000 Direct-attach Accessories

USB-DT Deuterium Tungsten Light Source

The USB-DT is our most versatile combination UV-VIS lamp. When stacked with a USB2000 Spectrometer, you have complete software control of all functions. This compact source provides broadband output from 200-2000 nm, and requires a simple 5-volt wall transformer to operate.

USB-DT: \$1,499

USB-ISS-UV-VIS Integrated Sampling System for Cuvettes

The USB-ISS-UV-VIS is a direct-attach sample holder and deuterium tungsten light source (200-1100 nm) for measuring absorbance. This sampling system allows you to control both the intensity of the tungsten bulb and the shutter via software. External power supply included.

USB-ISS-UV-VIS: \$1,499

USB-ISS-VIS Integrated Sampling System for Cuvettes

The USB-ISS-VIS is a direct-attach sample holder and violet LED-boosted tungsten light source (390-900 nm) combination for measuring relative absorbance. The light source boosts signal in the blue and provides over 10,000 hours of use.

USB-ISS-VIS: \$499

