

USB 2.0 Fiber Optic Spectrometer

- Detectors
- Power Meters
- CCD Camera
- Optical Chopper
- Beam Profiler
- Spectrometer**
- Fabry-Perot
- Temperature Controller & Shutter
- Filter Wheels



SP1-USB



FIBER OPTIC (M14L01) PATCH CABLE, USB CABLE, AND SOFTWARE INCLUDED

System Requirements

- Windows 2000/XP
- 16MB of Free Hard Drive Space
- CD-ROM Drive
- USB Interface
- 800 x 600 Minimum Display Resolution (1024 x 768 Recommended)
- 256 Color Minimum

Features

Software

- Easy On-Site Calibration
- Real-Time Spectrum Measurement
- Windows 2000/XP Compatible
- Software With Peak Finder, Smoothing, Averaging, Save, and Recall
- Gaussian Fitting Routines
- User-Defined Real-Time Routines
- Drivers for NI LabWindows/CVI™, NI LabVIEW™, MS C++™, and Borland C++™

Hardware

- USB 2.0 (480Mb/s) and USB 1.1 (12Mb/s) Compatible
- No External Power Requirements
- High Scan Rate (up to 190 scans/second)
- SMA905 Fiber Input 50µm (Cable Included)
- Ext. Trigger Capability via BNC Input

The SP1-USB and SP2-USB are advanced fiber optic spectrometers that are compact, easy-to-use, and optimized for 400-800nm (SP1-USB) and 500-1000nm (SP2-USB) wavelength ranges. They are Czerny-Turner grating spectrometers with a single fiber SMA input and a linear CCD array and are shipped complete with a spectrometer head, USB 2.0 cable, fiber optic patch cable with 50µm core and SMA connectors, and an extensive software and driver package.

Operation

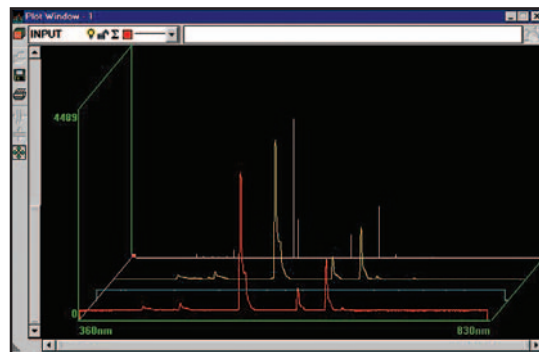
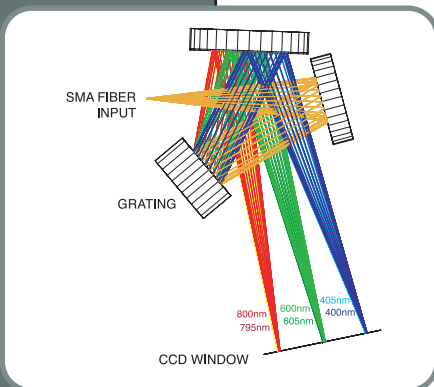
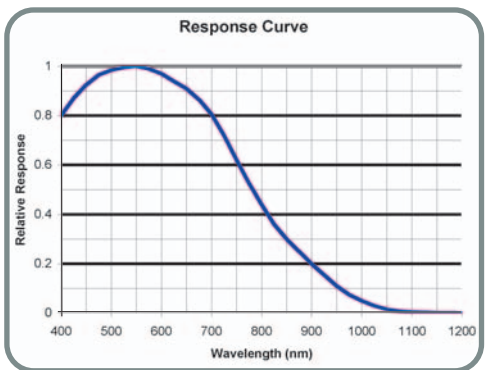
Connecting directly to the USB port of a standard PC, the spectrometers are operated by a software package that offers dynamic and flexible solutions for laboratory and manufacturing applications. The entire system is graphically driven using layers to allow mathematical manipulation of input data in real time. The raw data, background, signal background, and peaks can be shown on a single graph. The mathematical interface allows the user to input functions that enhance interesting features of the spectra. A 3D display allows for a more straightforward comparison of data. Thorlabs provides drivers for NI LabWindows/CVI™ and NI LabVIEW™ programming environments as well as for MS C++™ and Borland C++™ compilers.

Calibration

Although the system comes fully calibrated, a user-friendly calibration routine is built in to allow quick, on-site calibration by any standard emission source (i.e. He, Hg, H, etc.). Integrated routines allow for averaging, smoothing, saving, and recalling of data. A peak finding function is included to make spectral identification simple.

Spectra Filters

Both models are designed to measure first-order spectra. Long pass filters are included in each model to eliminate lower wavelength light from entering the spectrometer and producing undesirable second- and third-order artifacts.



Specifications

- **Spectral Range:**
400-800nm (SP1-USB)
500-1000nm (SP2-USB)
- **Spectral Resolution:**
<1nm FWHM @ 633nm
- **Integration Time:**
1µs-200ms
- **Scan Rate:**
190 Scans per Second (Max)
- **Dynamic Range:** 2,000:1

ITEM#	\$	£	€	RMB	DESCRIPTION
SP1-USB	\$ 2,194.00	£ 1,382.20	€ 2,040.40	¥ 20,952.70	400-800nm Full Fiber Optic Spectrometer
SP2-USB	\$ 2,194.00	£ 1,382.20	€ 2,040.40	¥ 20,952.70	500-1000nm Full Fiber Optic Spectrometer