

New Focus 6000 Vortex  
**Laser Controller**



**\$1895.00**

**In Stock**

**Qty Available: 5**

**Used and in Excellent Condition**

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**NEW FOCUS Inc.**

## **tunable external-cavity DIODE LASERS**

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### **Narrow 300-kHz Linewidth and 4-kHz Frequency-Modulation Bandwidth and at a Price You Can Afford**

Designed from the ground up, the 6000 Vortex Series lasers give you the same narrow-linewidth, low-noise performance characteristic of our 6300 Velocity built to your wavelength specification at a significantly reduced cost. With a tuning range of 100 GHz, the Model 6000 Vortex Series is ideal for applications such as atomic and molecular spectroscopy, and wavelength-division multiplexing. And the Model 6005, 633-nm Vortex laser is ideal in applications that used to require a stabilized HeNe.

#### **6000 Series Features**

##### **4-kHz frequency-modulation rate**

The laser cavity and drive electronics are designed to give you maximum frequency-modulation capabilities. Higher FM rates allow you to modulate above the frequency of mechanical-noise sources.

##### **Robust performance**

Based on a monolithic design concept, there are no adjustable components in an assembled Vortex cavity. Nothing can jiggle loose over time, so you won't have to worry about stability issues.

##### **Plug and play design**

Adding more wavelengths is easy, thanks to the modular design of this laser. Simply unplug your old laser head and plug in a new one. We take care of all the laser alignment at the factory.

#### **Model 6000 Vortex Laser Controllers**

The 6000 Vortex Series laser was designed to be a small low-cost instrument that generates narrow-band radiation at the wavelength you need. The controller provides all the essential features to control the laser's operation.

### **High-speed current modulation**

Amplitude modulation with a bandwidth of 1 MHz is available through the current modulation input.

Applying a signal directly to the laser diode via a connector on the head allows you to modulate the amplitude at rates of at least 100 MHz.

### **Complete control of laser parameters**

From the front panel, you can set the bias current of the diode laser or the bias point of the PZT actuator on the tuning mirror. And you can set the desired output power for stable-power mode.

### **Complete computer control and LabVIEW VI's**

Anything you can adjust from the front panel can be controlled through RS-232 or IEEE-488 (GPIB) interfaces. You can also set and monitor all diode-laser parameters. A LabVIEW program ([Macintosh Version](#)--self-extracting Stuffit file that has been binhexed using BinHex 4.0--[PC Version](#)--zipped file) is available for integration of our laser systems into fully automated experiments. In remote mode you still have access to the frequency modulation input, allowing you to dither the frequency slightly as you perform automated wavelength scans.

The general-purpose detector input on the back panel allows you to implement digital control algorithms. Analog signals read through this input are digitized and made available through the computer interface. This lets you feed in signals from sources as diverse as photodetectors and frequency discriminators. The detector input is particularly useful for constant-power wavelength scans, background correction in applied spectroscopy experiments, and wavelength stabilization.

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