

Vue-HCT High Current Diode and TEC Controller

Applications

- Materials processing
- Medical systems
- Diode-pumped solid-state lasers

Features

- Integrated diode & TEC control
- WinVue user interface software
- Developer Kit or PCB-only options



The Vue-HCT integrates a high current laser diode driver with a TEC controller onto a single PCB. With advanced computer control and monitoring functions with diode safety features like soft start circuitry, user settable power and current limits and temperature control, the Vue-HCT is much more than a power supply.

The unique design combines onboard intelligence and firmware with a powerful user interface software package. Our WinVue software transforms the OEM controller into a bench top lab controller and allows the user to do more than just control the laser diode. Software tools like data logging with one click data export, power calibration, user settable power and current limits, temperature tuning and servos, plus the ability to visualize all control settings and inputs helps design engineers shorten the product development cycle. In addition the computer control allows you to lower manufacturing cost by automating routine operations.

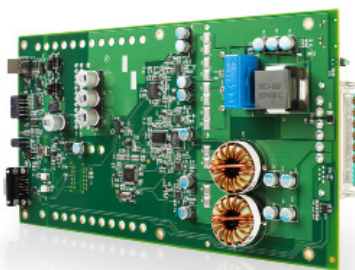
When it's time to incorporate the Vue-HCT driver into your application, all of the functions of the user interface software are available through a complete library of RS-232 commands. As an embedded controller the Vue-HCT is always monitoring the safety and status of the laser diode and safety interlocks. When it senses a fault condition it will safely shut down to protect your laser diode investment. Or use the Vue-HCT controller as the main system controller and take advantage of the programmable auto-start macros.

The most convenient choice for a single user is the Developer Kit, which combines a controller, a power supply, connectors, and the WinVue User Interface software program.

For OEM system integrators we offer the Vue-HCT driver as a PCB only option with an extensive library of serial commands.



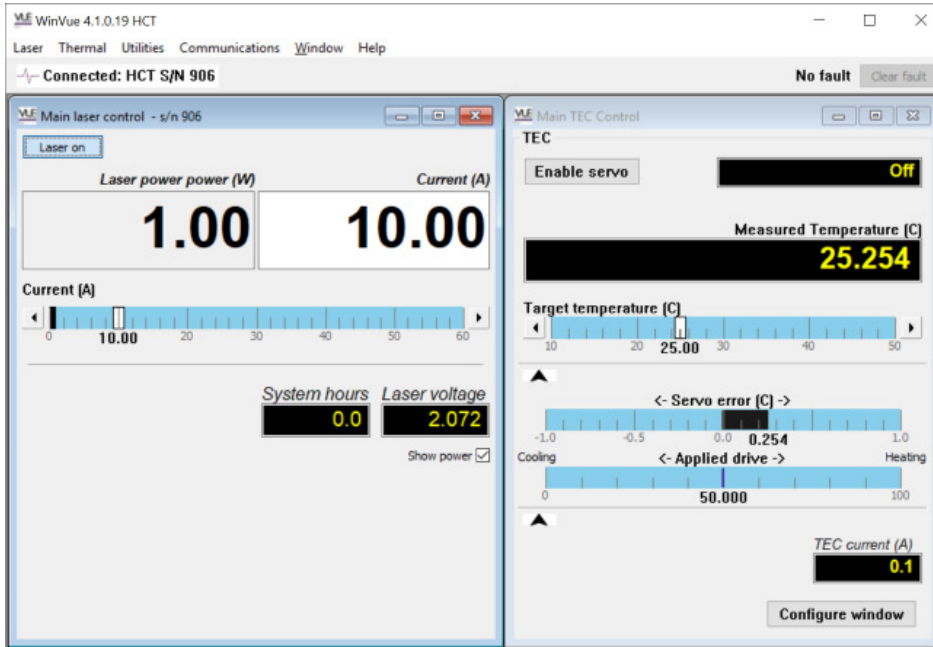
Developer Kit option



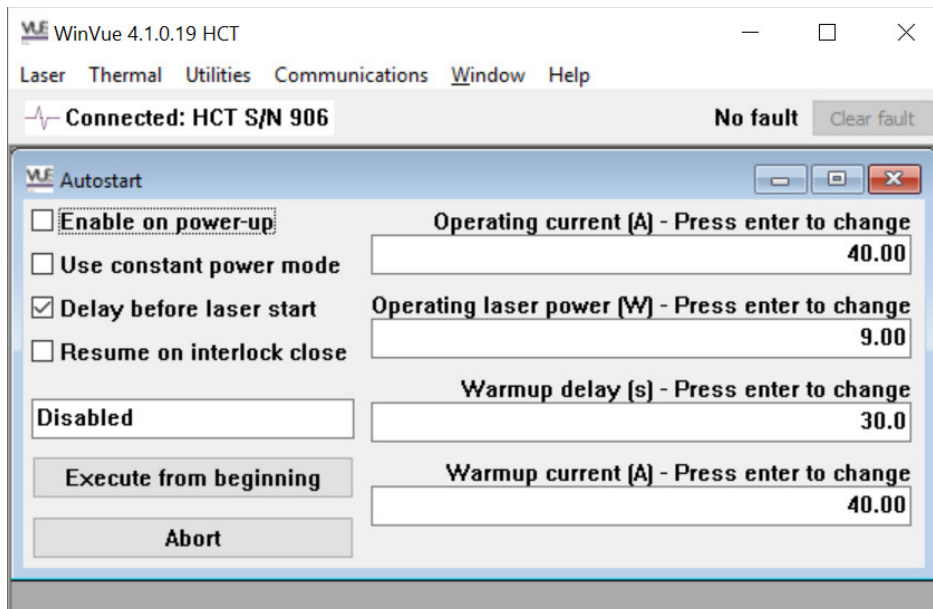
PCB only option



SPECIFICATIONS	HCT
Laser Diode Output	
Output Current	50A max.
Output Current Resolution	0.10%
Noise/ripple	0.50%
Compliance Voltage @ Max. Current	3.0V at output connector
Laser Voltage Measurement Range	0 - 7.5V
Laser Voltage Measurement Resolution	0.03%
Laser Voltage Measurement Accuracy	2%
Monitor Inputs	
Light-loop Input Signal Range	0 - 5mA
Light-loop Input Signal Resolution	0.02% of full scale
Light-loop Input Signal Accuracy	User-calibrated using software interface
Temperature Sensor (not included)	NTC 10k Ω
Temperature Resolution / Accuracy	0.03°C, typical / User-calibrated
TEC Controller	
Voltage Range	0 to \pm 11.5V
Current Range	0 - 15A
Temperature Sensor (not included)	NTC 10k Ω
General	
Input Power	90 - 264 VAC
Frequency	47 - 67 Hz
Current	< 6A at 115 VAC
Power Factor	0.95
Efficiency	60%
EMI	Designed to meet FCC-B
Operating Temperature	0°C to 40°C, non-condensing
Dimensions (LxWxH) - Developer Kit	11.8" x 6.3" x 3.8"
Connectors	
RS-232	DB-9
Output	DB37 female, mixed pin
Optional output cable, 1 meter	DB37 male, one end only
<i>Krona Electronics is continually improving the performance of its products. Specifications are subject to change without notice.</i>	



WinVue user interface software
Main laser control window



WinVue user interface software
Autostart window

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