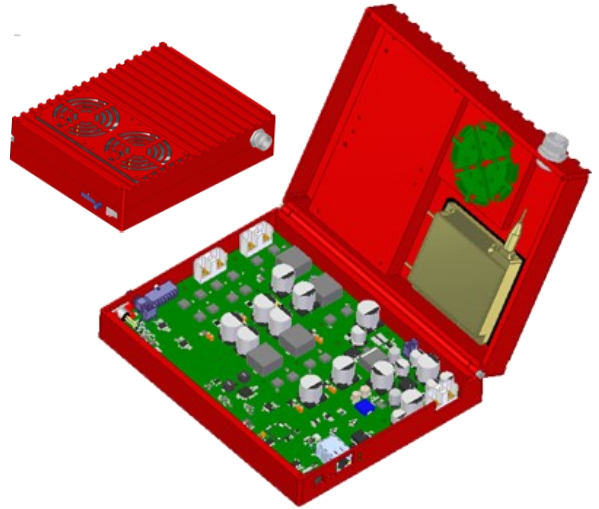


### Introduction

The C470 is a pump diode driver encased in a solid aluminum housing containing the pump diode and an integrated TEC. The diode can be modulated with control over frequency, pulse width and amplitude. A multipurpose connector is available with two additional TEC/Heater elements for integrating the instrument with an external laser head. This connector also contains a software interlock connection for safety. An InGaAs photodiode is available for accepting feedback from the laser head to notify the system to stop pumping once the laser head begins to lase. This instrument can be controlled over USB-C, Ethernet or RS485 using SCPI commands (Standard Commands for Programmable Instruments). This allows for easy integration with existing systems.



### Specification

Specifications	Parameter	Value
Power	Input Voltage	24V $\pm$ 10%
Pump Diode Power	Maximum Compliance Voltage	25V with 13.33mV control resolution
	Maximum Output Current	12A
	Pump Frequency	10Hz (100ms) – 10kHz (100us) with 2.08ns resolution.
Pump Diode TEC Control	Maximum Output Voltage	$\pm$ 18V with 10mV control resolution
	Maximum Output Current	12A
Laser Head TEC Control 1	Maximum Output Voltage	$\pm$ 7V with 4.17mV control resolution
	Maximum Output Current	12A
Laser Head TEC / Heater Control 2	Maximum Output Voltage	4.87V with 76.28uV control resolution
	Maximum Output Current	3A
Communications	RS485	Full duplex 115200 baud
	USB C	USB 2.0 full speed capable
	Ethernet	10Mbps
Connectors	Power Input	Screw terminal
	Pump Diode Power Out	Screw terminal
	Pump Diode Peltier Power Out	Screw terminal
	1064 Laser Peltier Power Out	
	1064 Laser Temperature Sensor	
	Crystal Heater Power Out	16-pin Molex Microfit (2125281600)
	Crystal Heater Temperature Sensor	
	External Interlock Control	
	RS485	Molex Nanofit (105314-1106)
	LVTTTL Time of Flight Signal Out	SMA
FC/PC Bulkhead Photodiode Input	InGaAs photodiode, 300 ps rise time, 800-1700 nm	
Unit Dimensions	W x H x D	230mm x 56mm x 180mm