

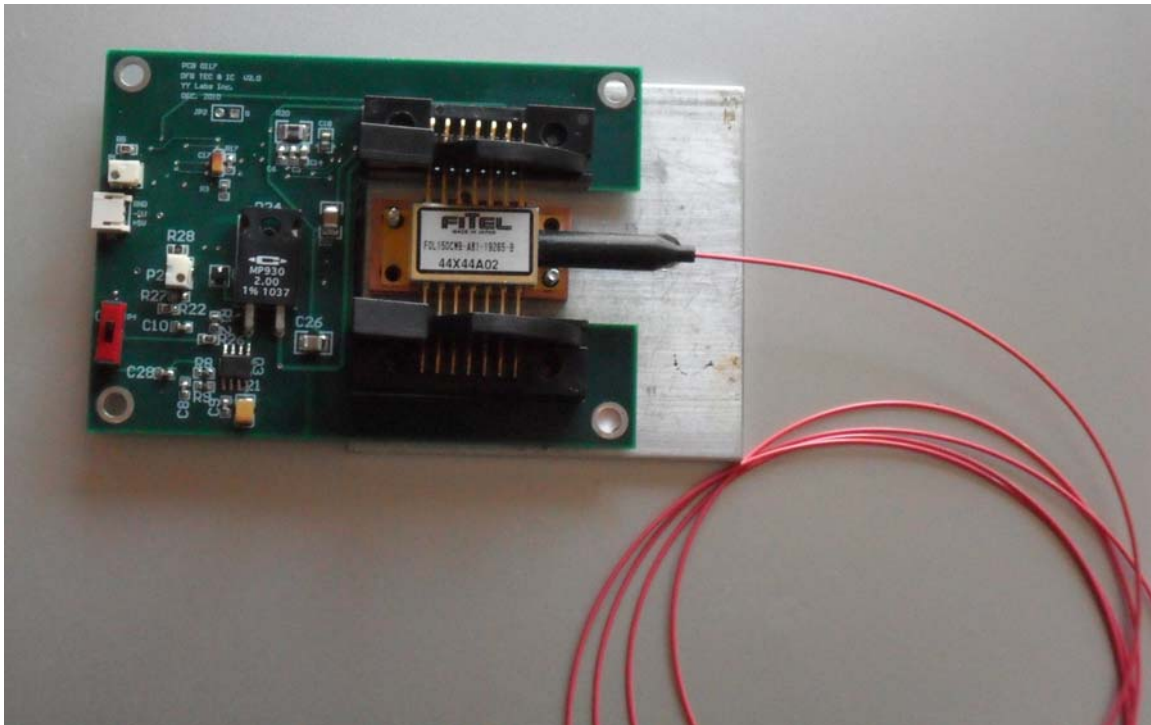


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## Operation Instructions for DFB Laser Driver and Temperature Controller

(Last updated on 1/14/11, Rev.2.2)



### 117 DFB Laser Driver and Temperature Controller

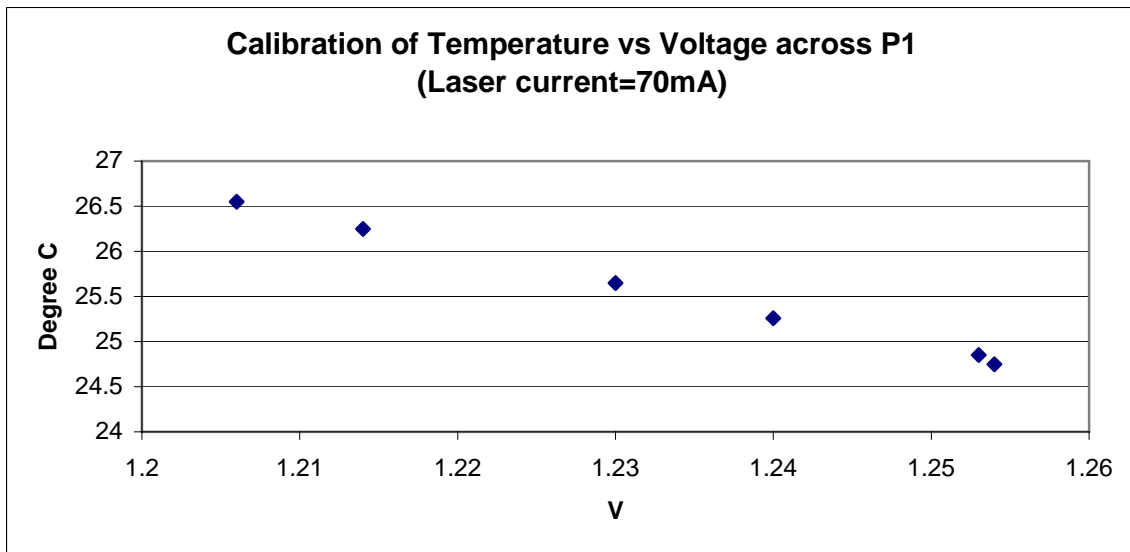
YY Labs' 0117 DFB laser current and temperature controller is designed for driving the DFB lasers (for either grounding or floating pin-out). It consists of a tunable constant current source and a temperature controller. The working current of the board is related to the cooler's current, which is determined by the working temperature of the DFB laser and the surrounding temperature of the Laser. Please make sure to put the laser on the heat sink or a large metal board for heat dissipation.

#### 1. Specifications

PARAMETERS	Min	Normal (25°C)	Max	Units
<b>Temperature</b>				
Range	24.5		26	Degree C

Accuracy			0.1	Degree C
Stability	0.01			Degree C
<b>Current</b>				
Range	30		200	mA
<b>Power Supplies</b>				
Positive +5V		45	1500	mA
Negative -5V			500	mA
<b>General</b>				
Dimension	3.56×2.535×1			Inch
Weight	1.5			Oz

The DFB laser working temperature is adjustable through potentiometer P1. The typical transfer function is shown as below. Each individual board may be slightly different.



### 3. Overview

Connectors:

JP1 ----- 3-pin terminal for power supply input. Please follow the mark on the PCB board for the power supplies connection.

JP2: ---- Test point for measuring the voltage related to the temperature.

JP4 ----- Driving current on/off switch. See the mechanical drawing on Page-3 I/O represents on/off.. The user can bring the port to the front panel of their instrument for control the laser current driver.

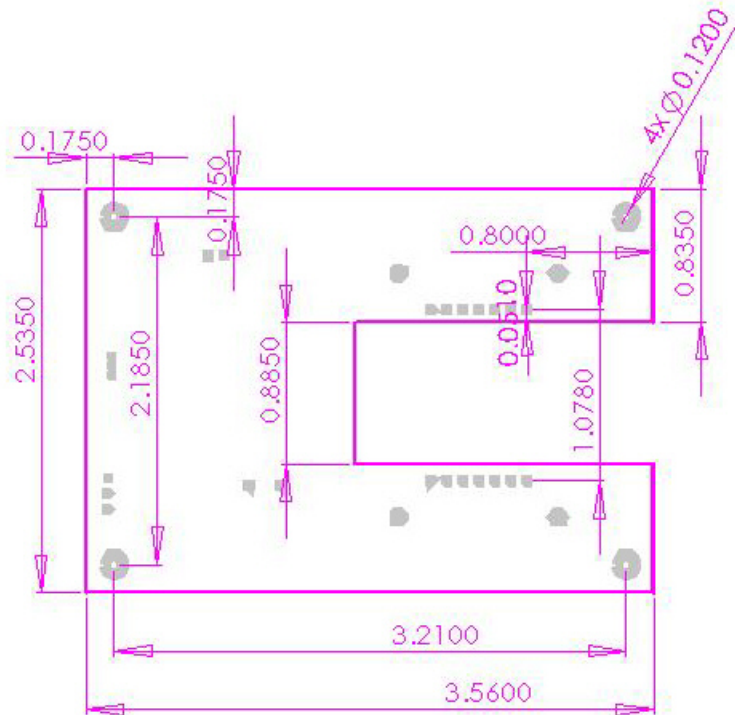
Temperature control

P1 --- turn clockwise for increasing, counterclockwise for decrease

Current Control

P2--- turn clockwise for increasing, counterclockwise for decrease the current

## 2. Mechanical Dimensions



### Caution:

Please mount the DFB laser to the bottom plate with enough heat dissipation. **Please turn on the temperature controller first, then turn on the current driver. Do not turn on current driver without TEC cooler on.**

For any question or information, please contact:

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