Quick Start

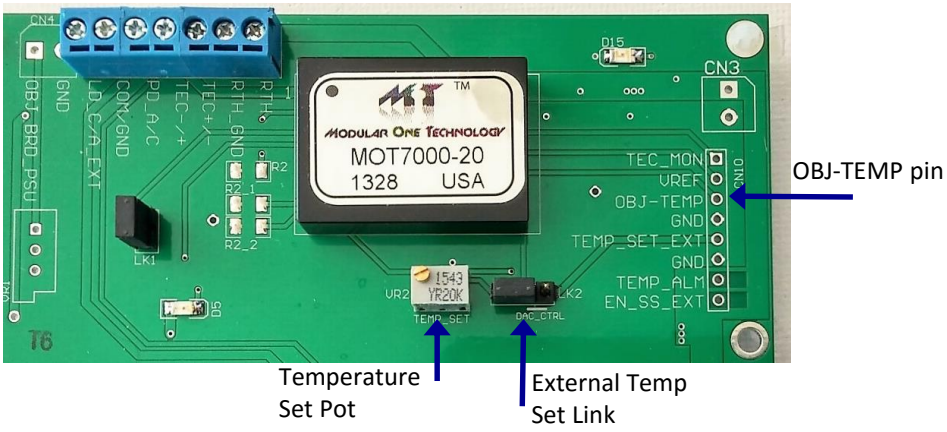
This Quick Start document is divided in two parts:

Part 1 are instructions for TEC controller section of the board and part 2 are for laser driver section.

Part1 (TEC Controller section)

Disable laser driver using LK8 (connect 2-3), refer to the schematic in this document.

1. Verify correct polarity of the power supply.
2. Verify the jumper settings: (with power supply switched off)
   LK1: Leave open to enable the module
   LK2: Remove LK2 (this is inserted when MOT6701_OEM is shipped). With this link removed temperature is set for 25˚C internally).



3. Add R2, R2_1, and R2_2 if necessary (default is open for maximum output voltage, maximum negative and maximum positive currents).Use tables in the data sheet for the correct values according to the TEC being used.

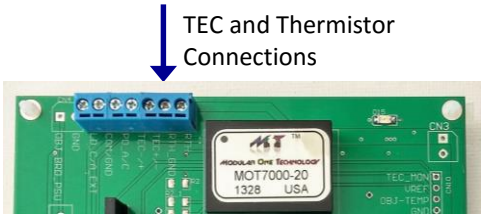
4. Connect the TEC and thermistor and/or Object Board assembly.

   - The TEC polarity may be reversed when connecting first time.

5. Switch on the power while monitoring the "OBJ_TEMP" pin on the CN10.

   - If voltage on the "OBJ_TEMP" pin is increasing toward ~3V or decreasing towards 0V and does not stabilized at 1.5V, then the TEM polarity is reversed.

   - Switch off the power supply and reverse the TEM connections (TEC+/TEC-)



6. Switch on the power supply and monitor "OBJ_TEMP" pin on the CN10. This should now be stabilizing at 1.5V indicating that the temperature set-point is 25˚C.
7. Using VR2 temperature set pot and monitoring LK2 pin1 (this is the pin closest to VR2 set the required temperature (use table1 in the data sheet).
8. Insert LK2 in the default position to change the Object temperature from 25˚C to the value you have set in step 7.

Note: The Alarm LED will light until the object temperature reaches the set value at which time the LED will go out – typically within 30 seconds

Part2 (Laser driver section)

Disable TEC controller using LK1 (insert link).

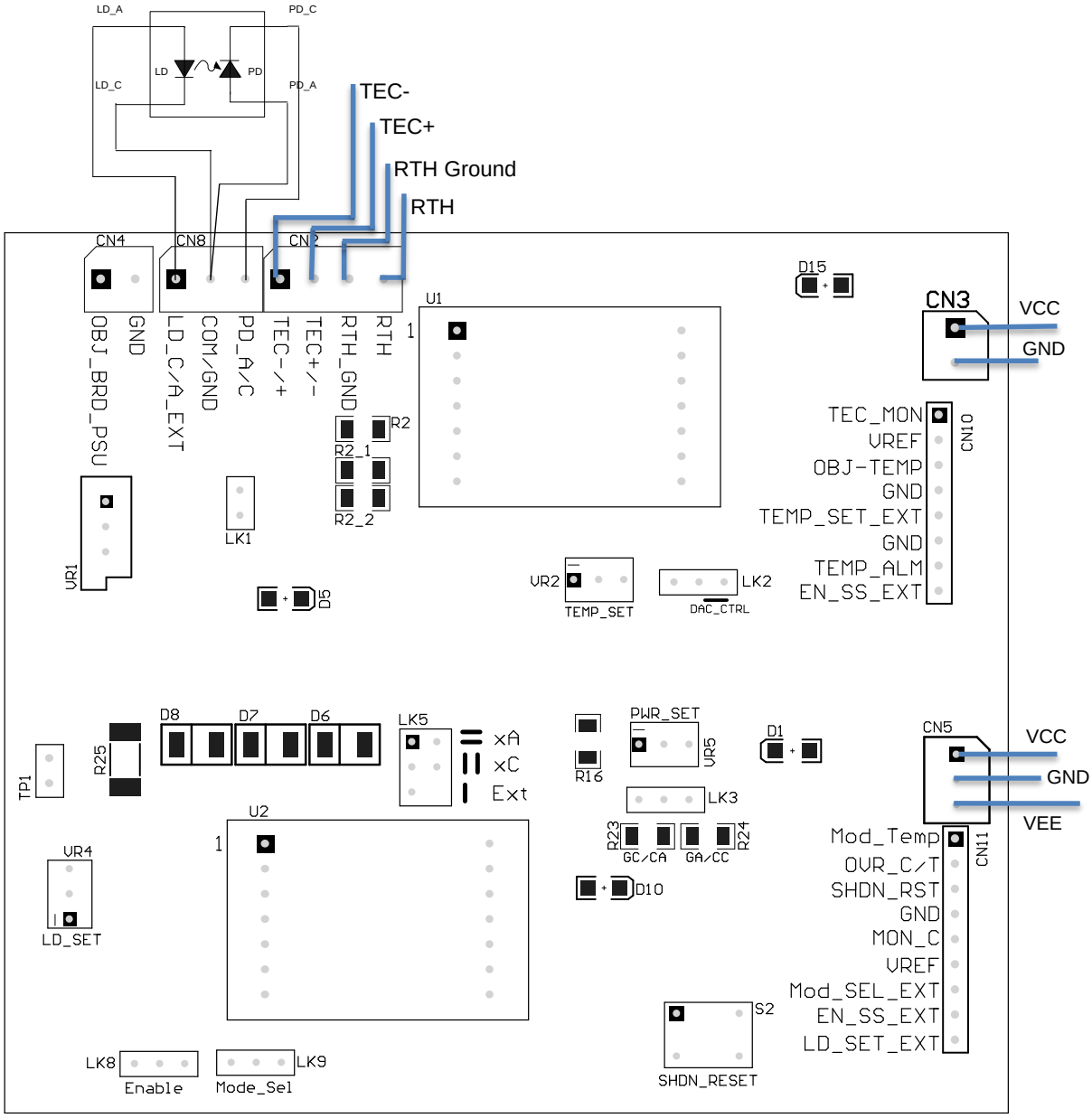
1. Verify the jumper settings: (with power supply switched off)
   LK8: Leave open to enable the module
   LK9: Leave open for constant current mode.
   LK5: Configure for GC using on-board diodes.

3. Adjust VR4 for minimum current (clockwise).
4. Switch on power supply while monitoring the voltage across R25 (TP1). this voltage in mV is equivalent to the laser current in mA.

   (Note, when switching the power on D10 may come on, use S2 to reset this).

5. At this point you should be able to change laser current using VR4.
6. Now that both sections of the MOT6701_OEM board is set up. You can connect the laser to the board using CN8. refer to the drawing in this document.
7. LK5 must be changed to external when using lasers.
8. Use MOT6701_OEM user guide for detail instructions on power control mode.

Board Layout & connection detail for GC configurations:



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