

# MODULAR ONE TECHNOLOGY

## **Application BRIEF:**

## **MOT705\_OEM series TEC Controller Boards**

- Fully populated TEC controller OEM boards, using MOT7000, MOT7001, & MOT3000 modules
- ±2A, ±2.5A & ±3A Maximum TEC Current
- Temperature Stability Better than 0.002°C
- Connections for external monitoring and control signals
- User customizable, on-board or via external connections
- Single Supply Operation (3 5V)
- · RoHS compliant

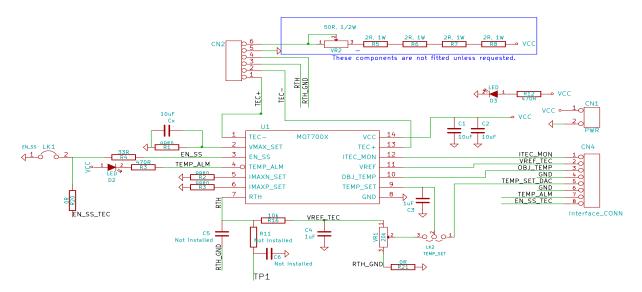


#### Description

The MOT705\_EVM has all the functionality of the MOT701\_EVM in a smaller footprint (72 x 45 mm). It also includes component footprint for a variable power supply for the Object board. Connection points are provided on the edges of the board to directly wire connections to the power supply, TEC cooling element, and temperature monitoring device. A further series of connections are provided for external monitoring and control signals.

Please refer to the MOT7000, MOT3000-25, & MOT7001 datasheet for the electrical capabilities of the module.

#### Schematic



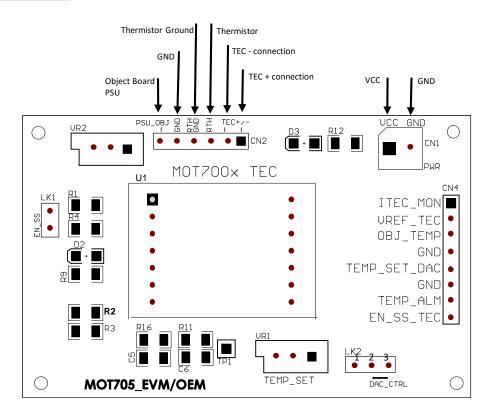


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### **Board Connections**



- 1. LK2 pins 1 & 2 should be linked if VR1 is used to set the temperature.
- 2. LK2 pins 2 & 3 should be linked if external DAC (or potentiometer) is used to set the temperature.
- 3. LK1 is left open to enable the controller. To disable the controller link LK1.

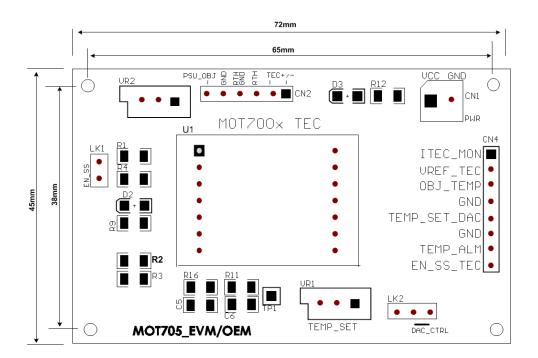
#### Selection Table:

Part #	Descriptions
MOT705_20TEC	±2A TEC controller OEM Board, uses MOT7001-20
MOT705_25TEC	±2.5A TEC controller OEM Board, uses MOT3000-25
MOT705_30TEC	±3A TEC controller OEM Board, uses MOT7001-30

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### **Board Dimensions**



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