

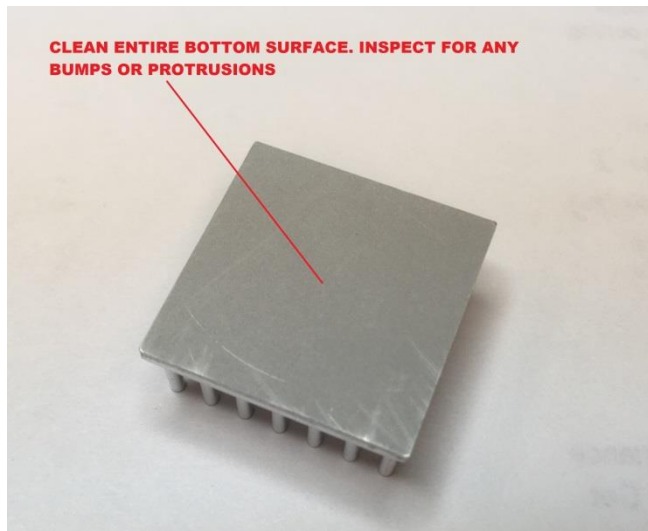
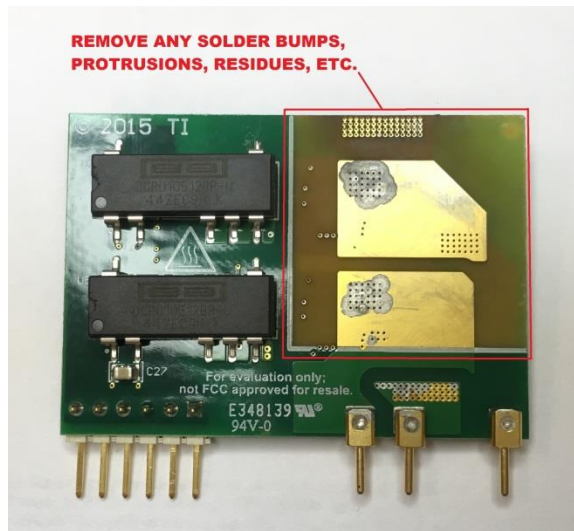
# **LMG34xx-HB-EVM**

## **Heatsink Application Instructions**

**October 4<sup>th</sup>, 2016**

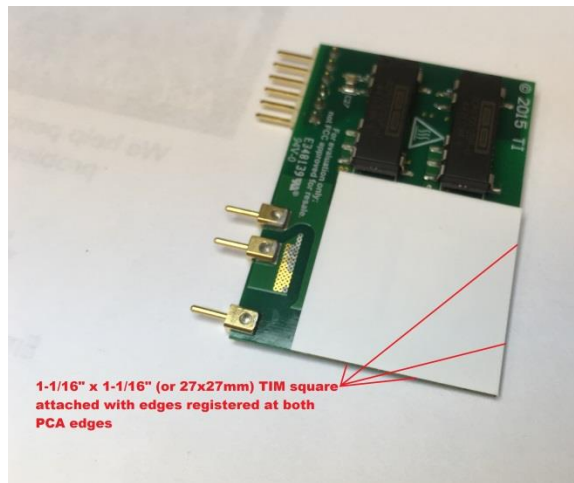
# Prepare PCA and Heatsink Surfaces

1. LMG34xx PCA: Inspect area inside white silkscreen outline for solder bumps and protrusions. Anything sharp or raised that might impress on or rupture the soft TIM material must be removed /flattened so the entire area inside square is uniformly flat. Clean area thoroughly with solvent, allow to dry.
2. Heatsink: Inspect bottom area for gouges, nicks, protrusions, imperfections, etc. IT MUST BE FLAT AND SMOOTH. Clean lightly with solvent, allow to dry. NOTE: The matte finish does not require removal per manufacturer.



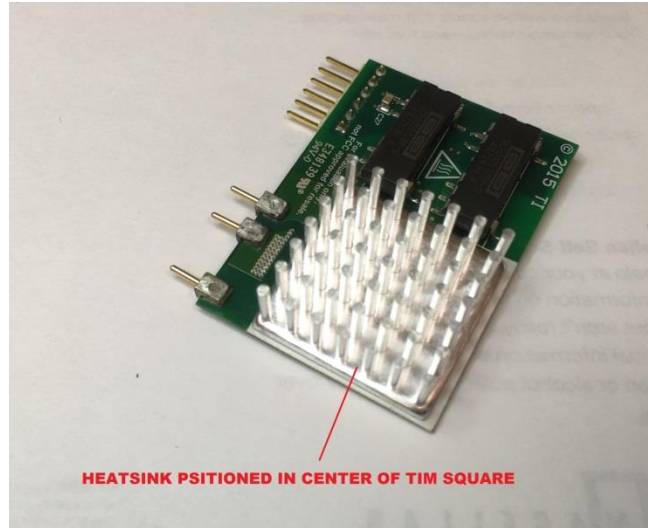
## Attach TIM square to the LMG34xx PCA

1. Peel one side of the transfer liner from the 1-1/16" x 1-1/16" (27x27mm) TIM material. Take care not to get lint or other foreign contaminant on the sticky surface. DO NOT TOUCH OR ATTEMPT TO REMOVE CONTAMINATION FROM THE STICKY SURFACE AS IT MIGHT END UP DAMAGING ADHESIVE OR UNDERLYING INSULATING MATERIAL.
2. Apply to the PCA with two sides registered even with the two edges as shown in the photo. Gently rub the exposed side liner so the adhesive underneath uniformly adheres to the board. There should be no obvious lumps or air bubbles.
3. Peel up the remaining liner and examine the exposed sticky surface to be sure it looks uniformly flat: There should be no air bubbles or any protrusions underneath. IF ANYTHING IS WRONG WITH IT PULL IT OFF, THROW AWAY, AND START OVER WITH A NEW TIM SQUARE.



# Attach Heatsink to the LMG34xx PCA

1. Ensure the exposed sticky side of TIM is free from lint, contaminants, etc. If necessary replace the TIM. DO NOT TOUCH OR ATTEMPT TO REMOVE CONTAMINATION FROM THE STICKY SURFACE AS IT MIGHT END UP DAMAGING ADHESIVE OR UNDERLYING INSULATING MATERIAL.
2. Place the flat side of heatsink down centered exactly in the TIM. This allows the TIM outer edges to uniformly act as a physical barrier to the heatsink metal for electrical creepage prevention from underneath the heatsink.



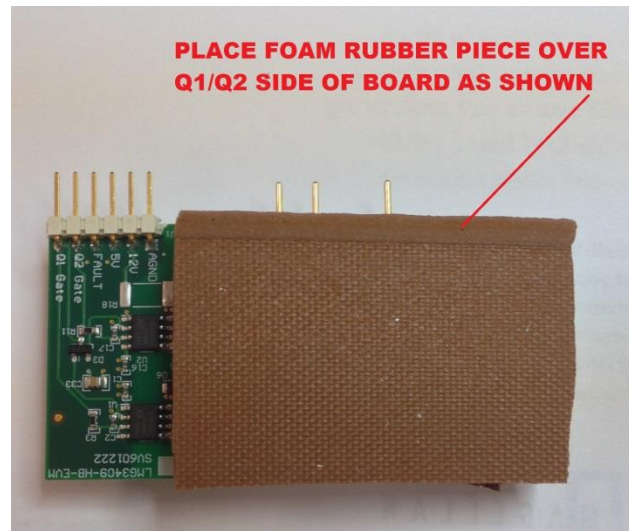
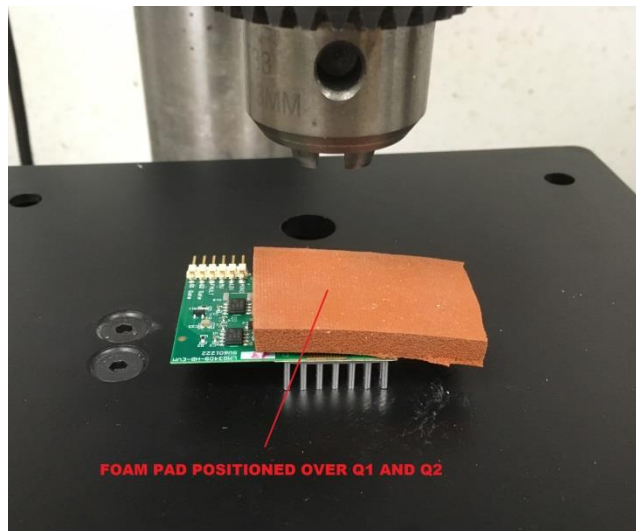
# Setup the Pressure-Application Fixture for the LMG34xx PCA

Setup a digital scale on a standing drill press as shown in the photo.



# Setup the LMG34xx PCA Pressure Application Configuration

1. Place the LMG34xx board on the scale, heatsink side down.
2. Place the foam piece over the Q1/Q2 side of PCA as shown.



## Apply Pressure to the PCA

1. Place the wooden block on the foam as shown.
2. Bring down the drill press chuck as shown. NOTE: The center of the chuck should press the wooden block – focal center of pressure - into the approximate center of the Q1/Q2 area.
3. Apply approx. 40 pounds of pressure (measured on digital scale) continuously for 60 seconds.
4. Afterwards inspect the PCA to ensure all components are OK, there has been no excessive or unexpected flexing of the PCB fab, etc.

