

How to Manually Solder Re-work the LMZ21701/00

Using a hot-air soldering station.

The procedure takes about 5-10 minutes.

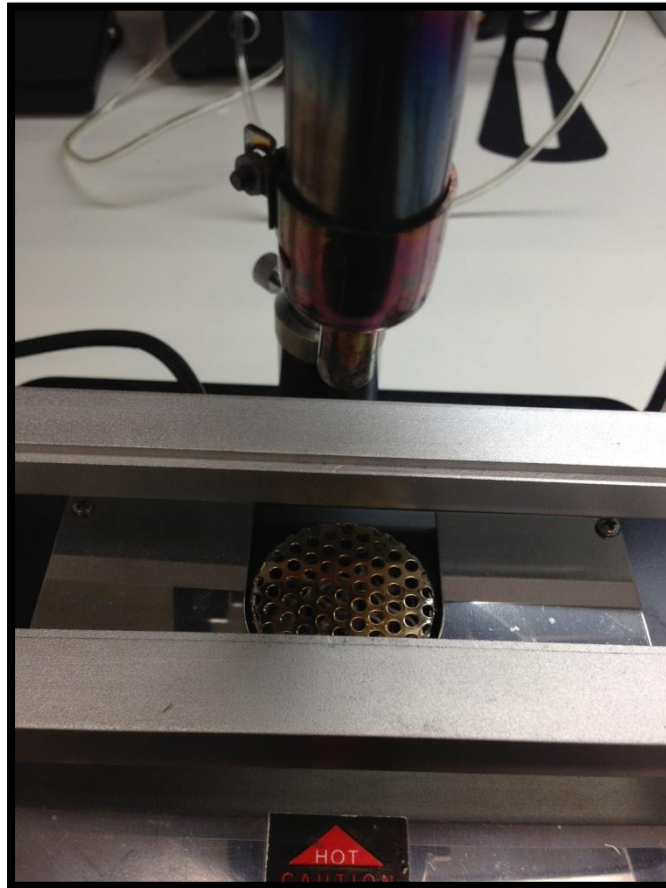


Figure 1. Typical hot-air soldering station with bottom heater.

Set the air flow temperature to 260°C max.

Step 1.

Place the PCB with the old unit directly under the air flow and apply heat. Once the unit reflows, pull the module off the board with tweezers. Hold the unit with the tweezers by the side of the substrate (bottom section), not the inductor. See Figure 3 and Figure 4.

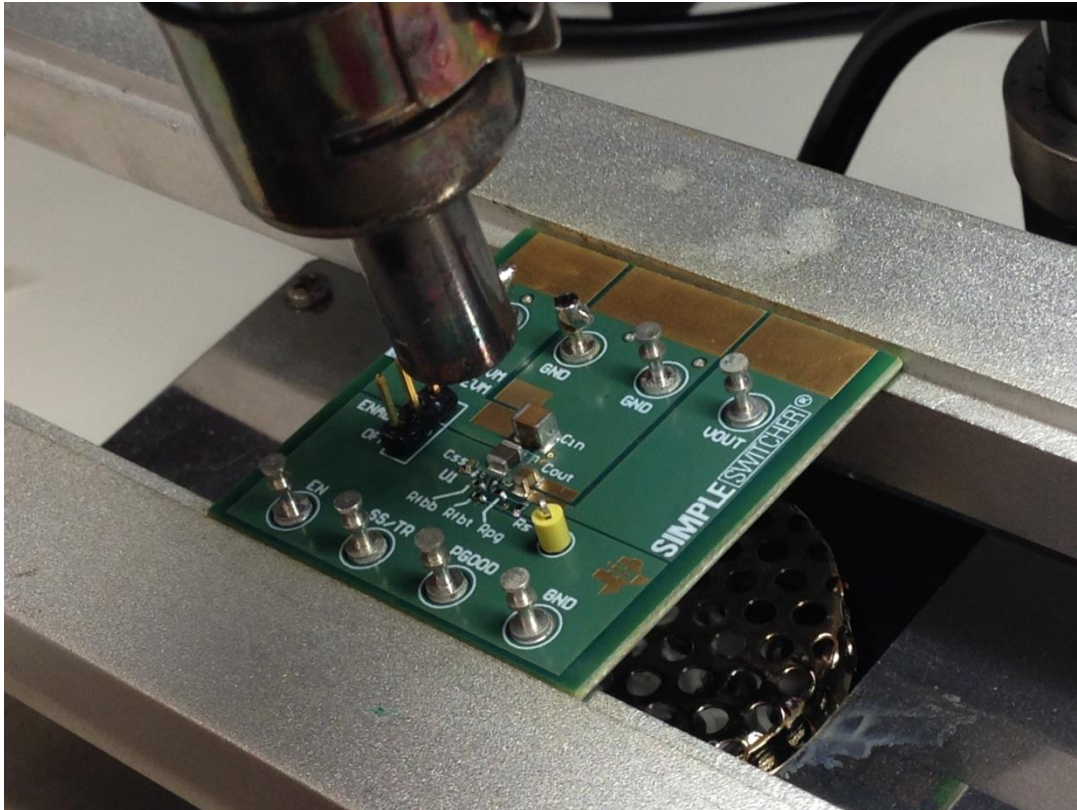


Figure 3. Reflowing the unit on the EVM before removing it.

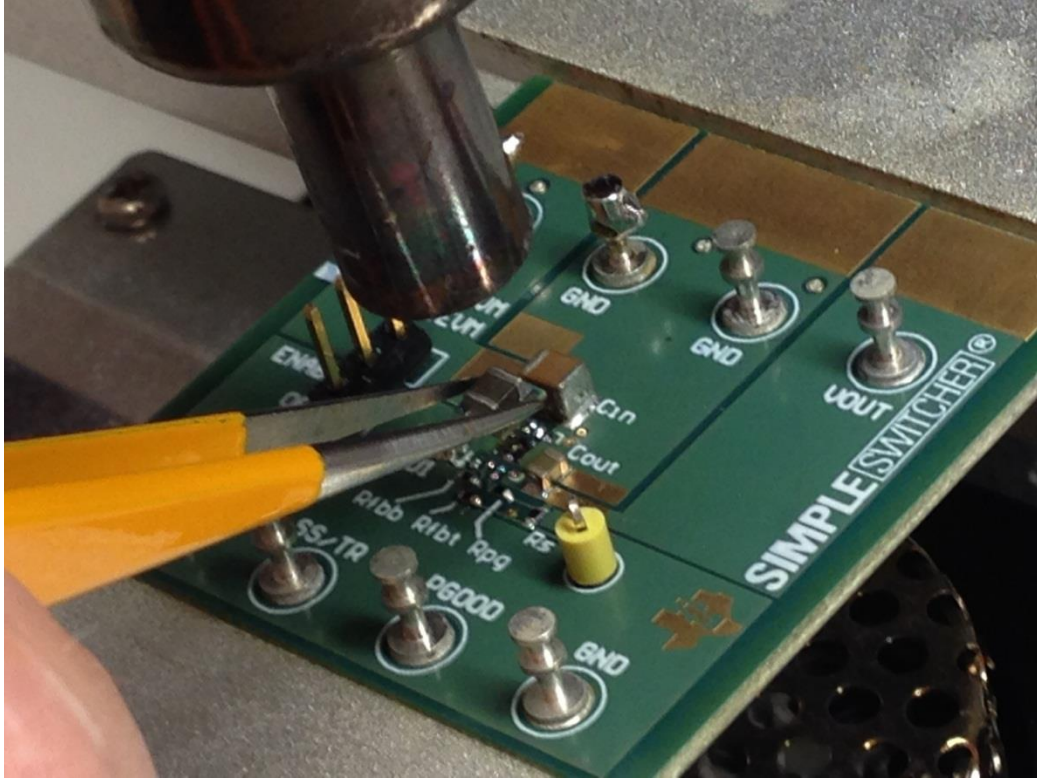


Figure 4. Removing the unit from the EVM. Holding the unit by the substrate part, not the inductor.

Step 2.

After the board has cooled down, apply some solder paste over the pads. Clean up the excess paste with the tip of the tweezers.

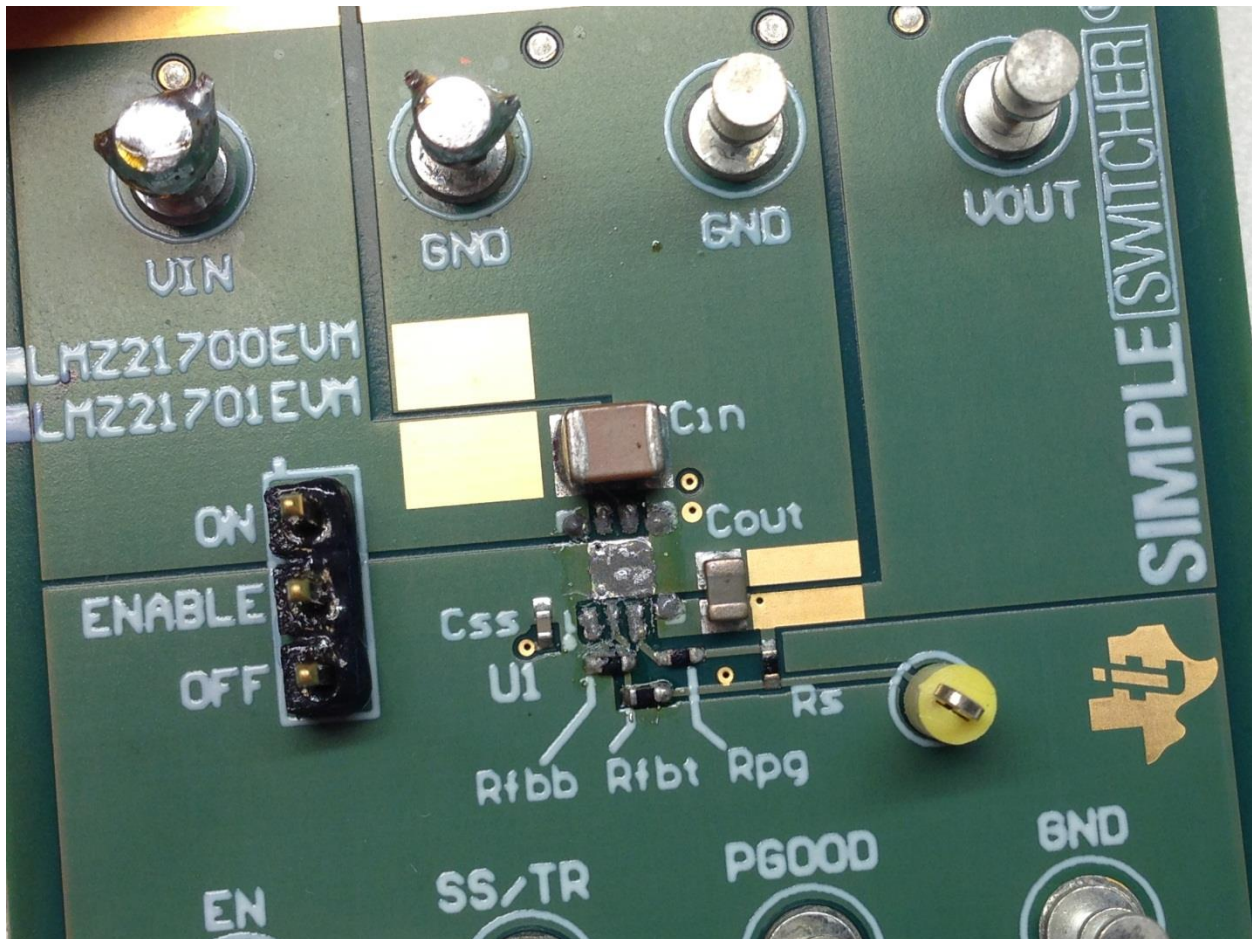


Figure 5. Solder paste applied on the EVM pads.

Be sure to clean excess solder paste between pads.

Step 3.

Place the new unit over the pads with the solder paste.

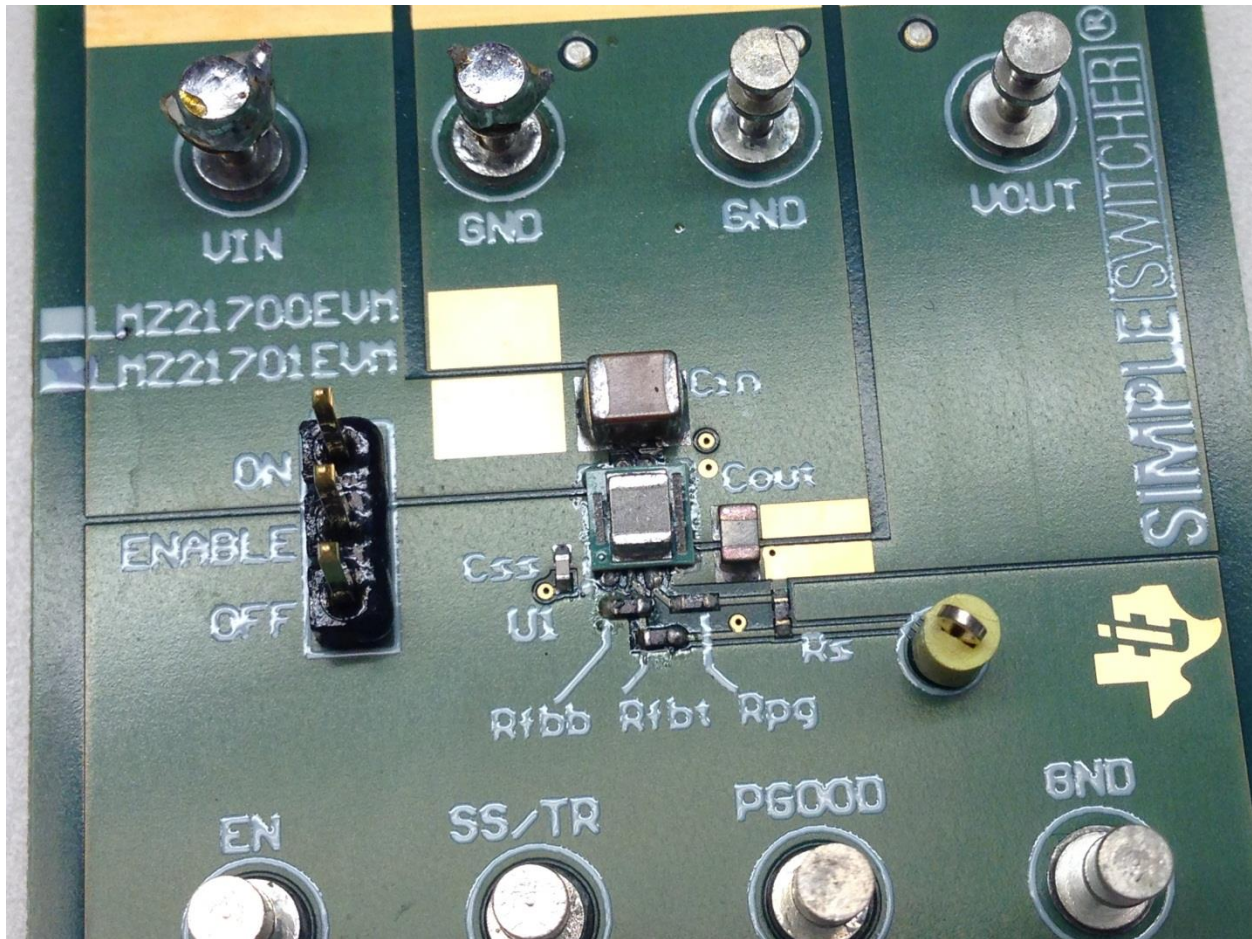


Figure 6. New unit placed on the PCB before reflow.

Step 4.

Reflow the unit.

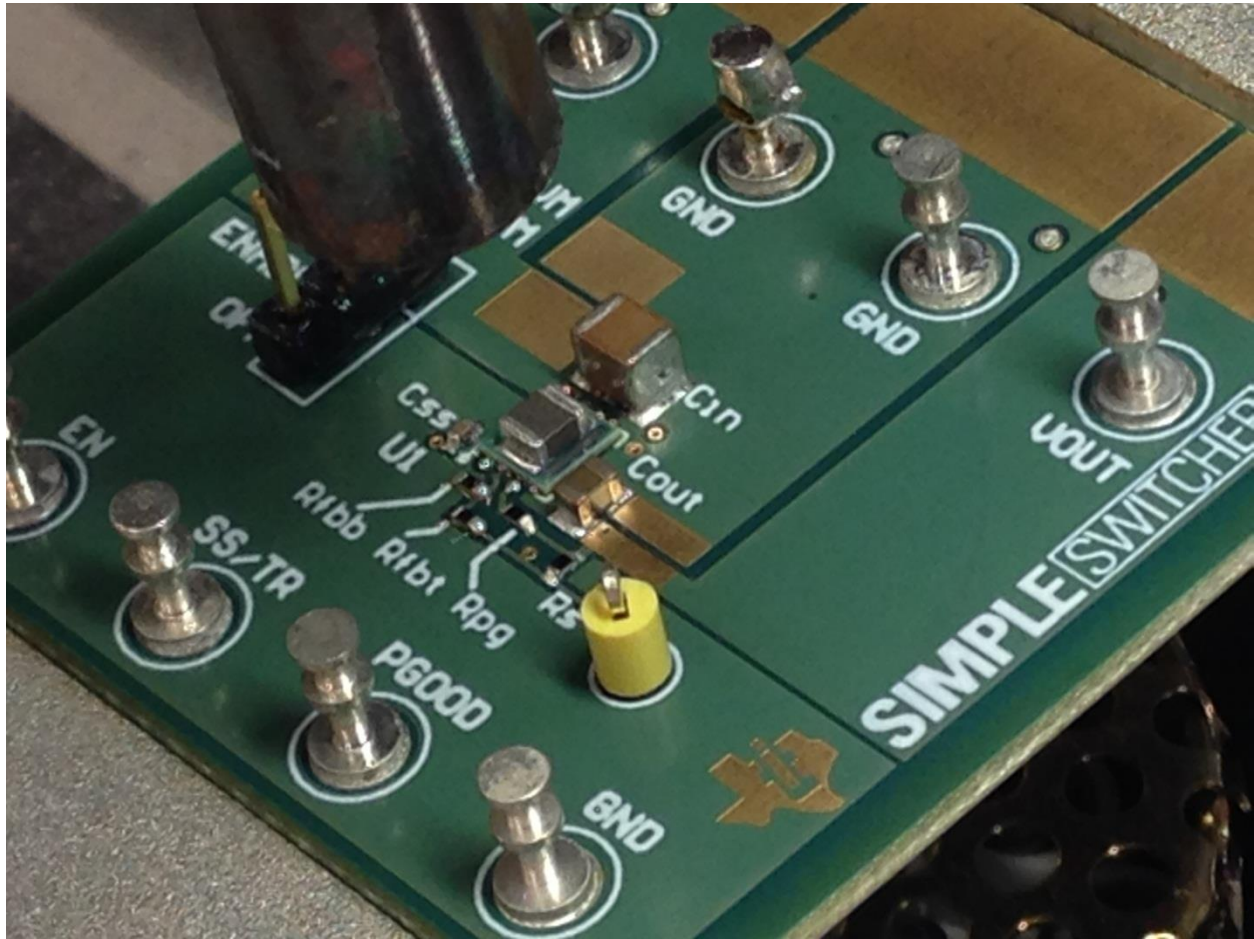


Figure 7. Reflowing the new unit on the PCB.

Do not exceed the maximum reflow temperature for the part.

Step 5.

Once the board cools down, test the output voltage. This board was configured for 1.8V output.



Figure 8. Testing the output voltage.