

From Jay swichtenberg

There aren't any PCB mods for the 4E, there are for the 4D which is what I thought the original post was about.

I went and checked out my 4E. Every thing pretty much followed the schematics. With EFM stuff there will be a lot of differences between the BOM (Bill Of Materials or parts list) and the schematic. Usually the schematic is right.

Here are the changes I made:

R36 in the PWM part I changed to 56K from 82K.

I put a 50K trim pot in for R37 to get a better sine wave out.

On U4 pin 1 I put a resistor to ground. I think 5K-10K will work. The comparitor has an open collector output and needs to be pulled up with a resistor.

There are three things that I can think of that might cause problems:

1) There are places for 2 - R14s, the expo tempco resistor. If you are not using a tempco resistor put a 1K resistor in the resistor slot marked R14. If you are using the tempco put it under the CA3046 - U2. DO NOT DO BOTH, ONLY DO ONE!

2) FETS. There are a number of different fets that can be used as the switches that short the cap. Problem is not all of these have the same pin out. So check the fet pin out you are using vs the way the board was layed out.

3) The sync fet must have it's input grounded when not in use. This is done with the jack on the schematic. If you leave it floating it may trigger or stay on all the time.

Another thing I saw looking at the information doc for the card and my boards is that they are slightly different. Look at the placement of the FM IN pin. On my boards it is more towards the center of the board. In the doc it is closer to the CA3046 - U2.