

Problem Report

subject: CC2540 custom board not working

Hi dear TI staff,

We are developing a custom cc2540 device. We wrote code that works on your MiniDK KeyFob Device.

After this we made a board layout following the reference design given in the DataSheet, and encountered issues with our first board. The CC Debugger does not recognize the board (indicated by the LED not turning green). Investigating the issue we measured the electric of our board connector and yours, and got the following results:

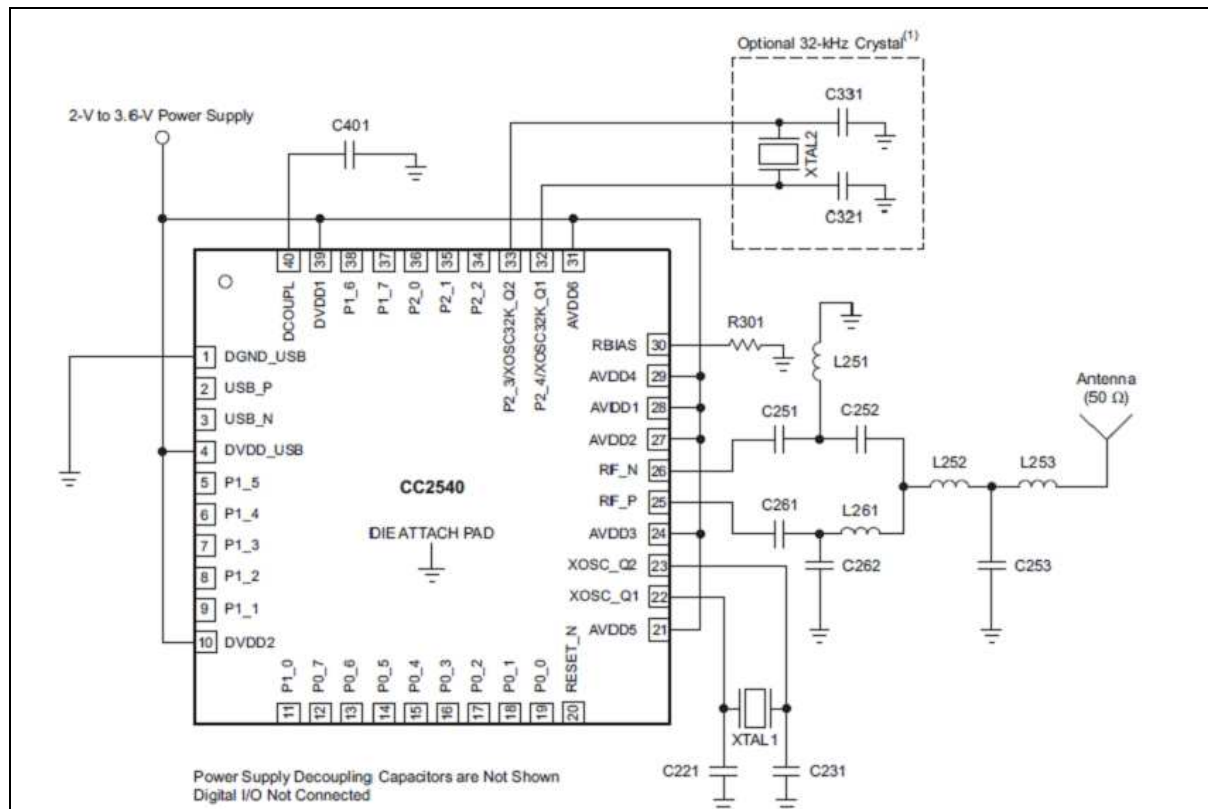
		our boards	your board
purpose	pin		
DC	P2_2	High	Low
DD	P2_1	High	Low
SCLK	P0_5	High	Low
CSN	P0_4	High	Low
MOSI	P0_3	High	Low
MISO	P0_2	High	Low
Reset	reset	High	High
VDD	...	High	High
GND	...	Low	Low

We checked the whole board design, but it was coherent with your reference design. We could not find the error, so we decided to make another board, this time following the layout and schematics of the MiniDK KeyFob device. Unfortunately we've still got the same problem.

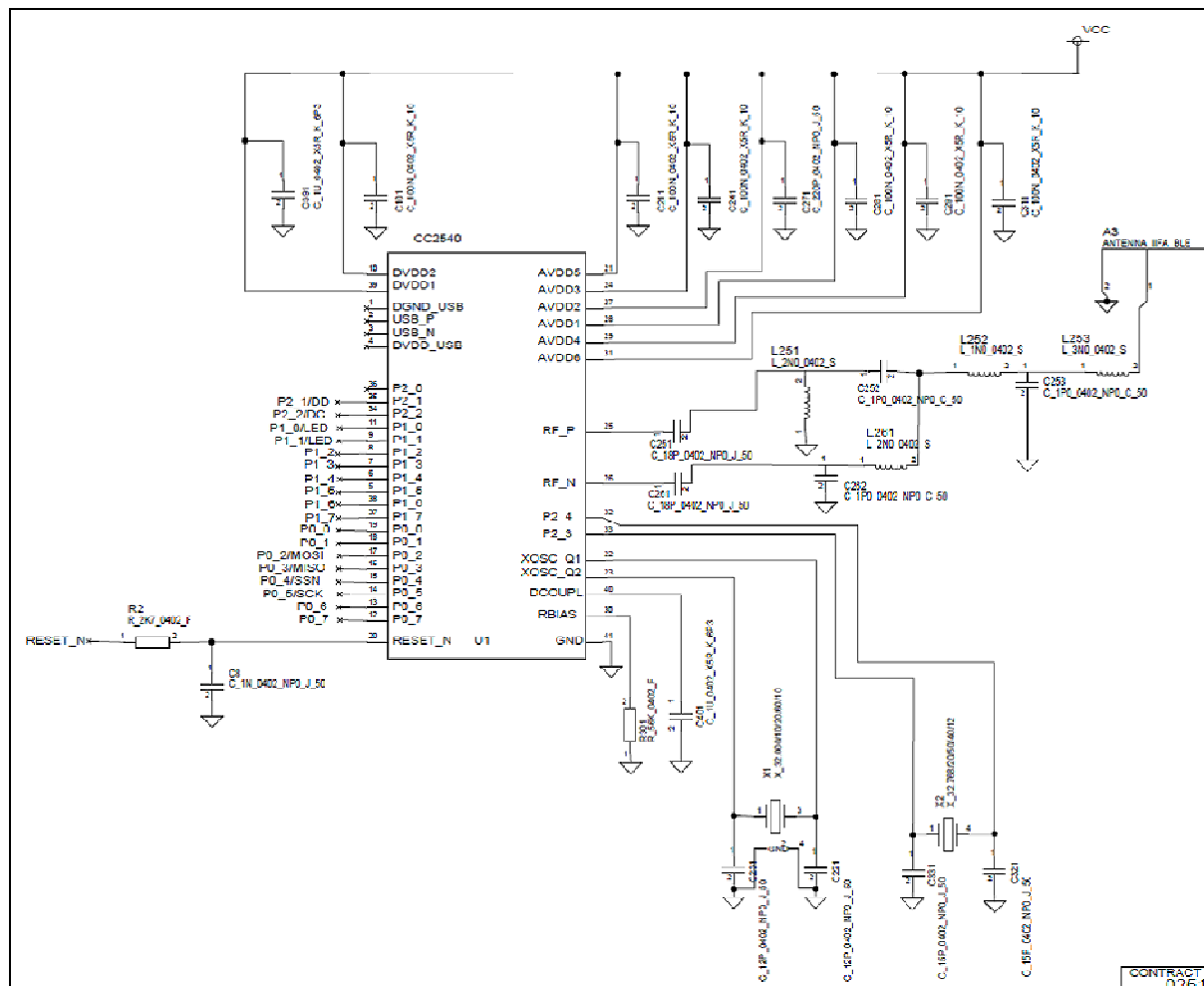
Now after weeks we are out of ideas and would like to ask you to have a quick look over our design, maybe you've heard of people having a similar issue, or maybe you spot a mistake.

I've included the cc2540 pin description schematic as well as the keyfob design we stucked to, and our own layout. We only changed the accelerometer chip to a different manufacturer, but other than that the design should be the same. If you'd like to have a look at our partlist let me know.

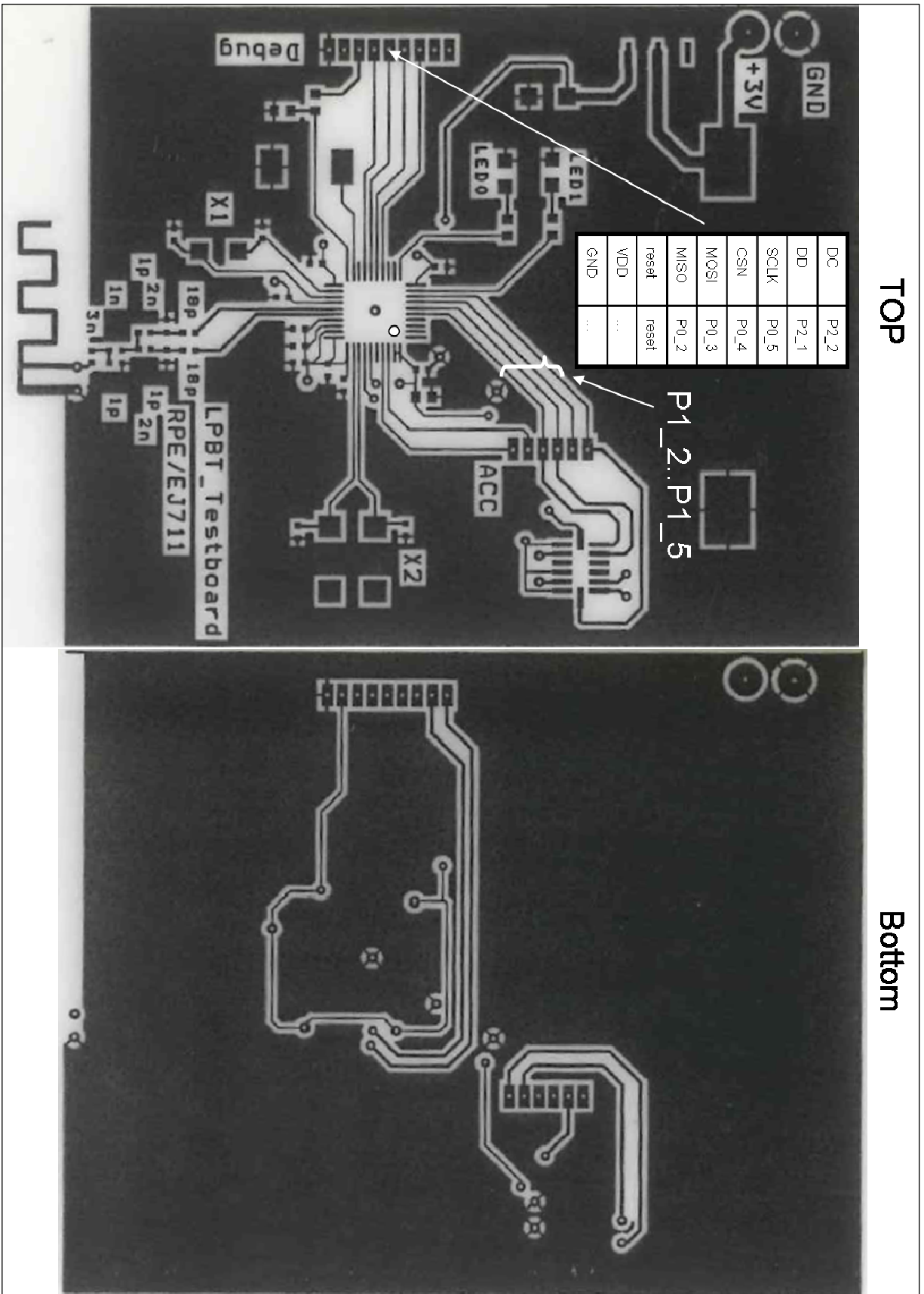
Thanks in advance for your time, You are our last resort!



1: Reference Design used for 1st Board



2: KeyFob Design used for 2nd Board



3: Our Layout