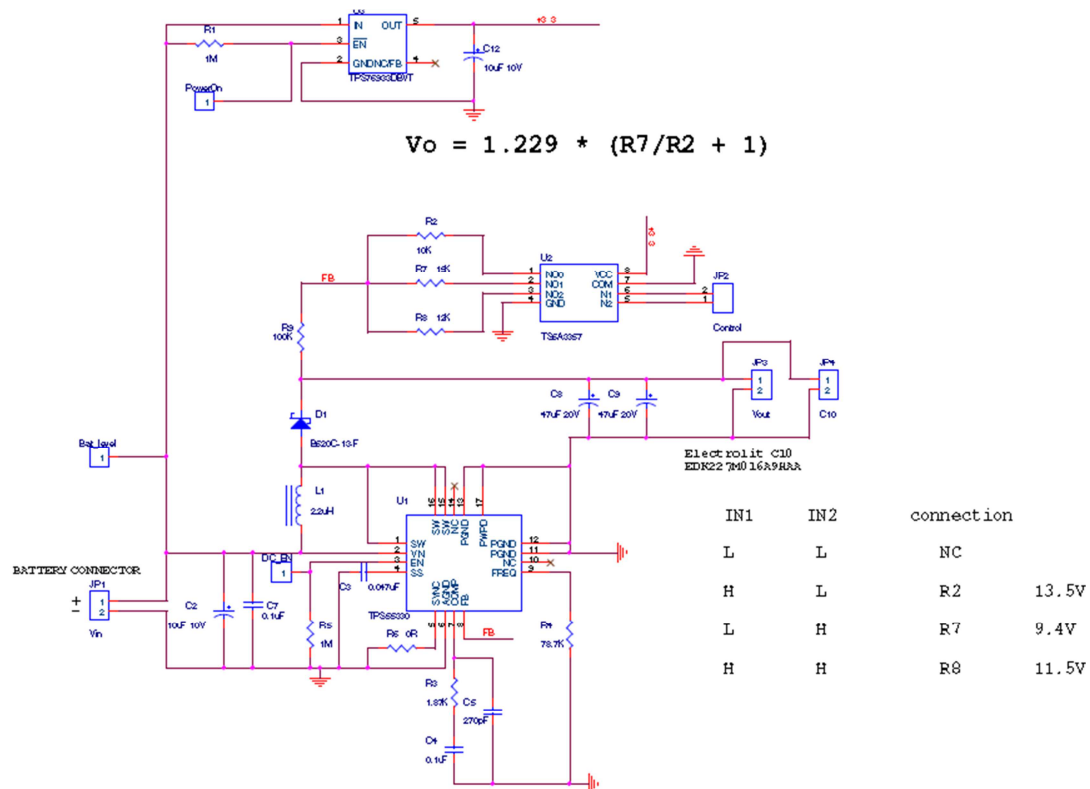


TPS55330 Transmitter power supply problem

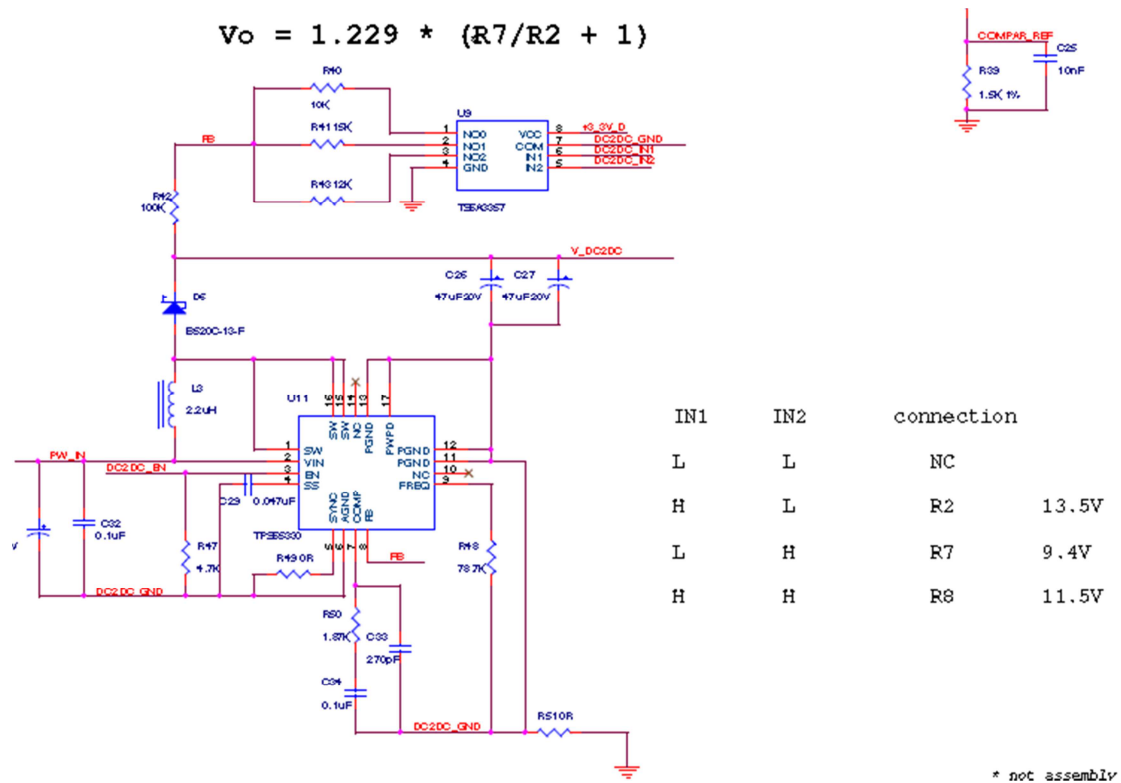
As part of my transmitter design I used TI TPS55330 DC2DC converter to control the transmitter power supply. The user can select the feedback resistor to set the transmitter input voltage.

The first stage was to design small PCB based on TI EVM to test the method of switching resistor.



I connect that PCB to my transmitter and I found that the DC2DC can be controlled in that way and it can drive even 2A and keep the output voltage.

Because the result was good I insert the design to my main board as you can see below-



My problem is that the output voltage of the DC2DC when I placed it on my main PCB cannot hold the output voltage on current consumption.

I found that when I operate the DC2DC without current I get the right voltage levels, then when I start the transmission the voltage on "FB" start to change from 1.229V and after 1-3 seconds the TPS55330 stop function. Power Off and On the curd makes the DC2DC function again.

As I understand the voltage on "FB" should be constant 1.229V when the enable = "1".

I understand that I have problem at the PCB but didn't find it yet, that because I took the TPS55330 from my main PCB and put it at my DC2DC PCB and the chip function 100% keep the voltage and supply the current.

Can you help me to find the area that can cause that the voltage on "FB" will not be stable on current consumption?