

Frequently Asked Questions

Is there an order to the power and USB cables?

There is no order to plugging in the power and USB cables into the Strata Enabled LDO board.

What does the red LED on top of the board signify?

The red LED on top of the board signifies that the input voltage is too low for the board to turn on. The minimum input voltage required for the LDO to turn on depends on what LDO is on the board and can range anywhere from 1.1V to 2.25V. The LED will shut off when input voltage is high enough for the LDO to regulate.

Input voltage is above the given minimum required voltage, why is the output voltage not regulating to the desired value?

LDOs are linear step down regulators only, meaning the input voltage needs to be higher than the desired output voltage to generate that voltage. This is referred as “dropout voltage”. Provide at least 100mV of dropout voltage to generate the desired output voltage across the entire load range. Minimum input voltage is only enough for the part to turn on, not necessarily to regulate.

Why is Strata failing to detect the platform and/or stop responding?

First try resetting the board using the button (SW1) on the bottom of the board next to the MCU. The UI should go back to the home screen and then reload the UI. If this doesn't work, quit the Strata app, then open task manager and close the process “hcs.exe”. Restart Strata and reset the board one more time.

Can I put a different XDFN package LDO on my Strata Enabled LDO board?

Yes, but be sure the specific LDO is compatible with the pinout of the board. Not all XDFN package LDOs will have the same pinout. Also, the input voltage monitor resistor divider (R14 and R11) may need to be changed so the board can be enabled at the proper input voltage. Check the schematic to make sure the LDO chosen will work.

Why does the transient response of the board appear to be unstable?

The EVK for the LDO was equipped with minimal input and output capacitance because this is all that is needed when this design is implemented onto a PCB in a larger system. However, between the banana plug connectors, and cables leading into lab power supplies, things that most likely will not be a part of a larger system design, there is an excess of parasitic inductance being introduced. If transient testing of this EVK is desired, it is recommended that the input supply be plugged into the two pin header J6 using a coax cable to limit the amount of inductance seen. There is also a spare pad (C5) on the back of the board that can fit an extra capacitor (the larger the better), if needed.