

CYPRESS CY7113 EZ-PD PMG1-S3 Prototyping Kit User Guide

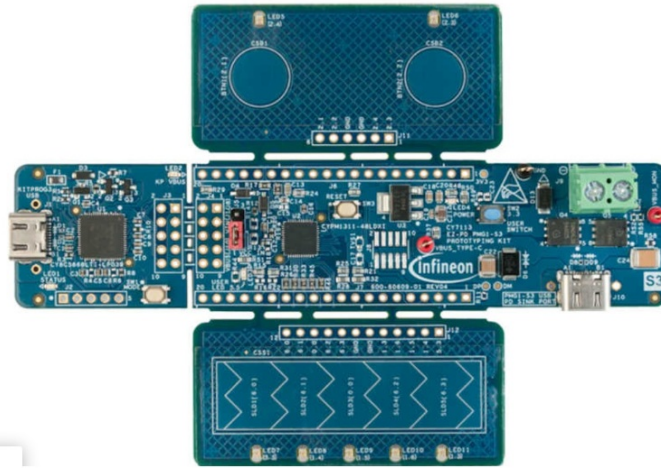
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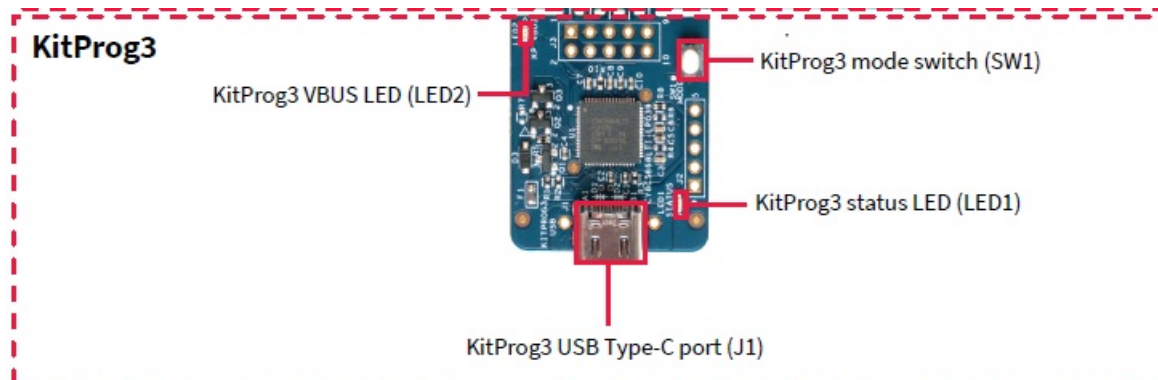
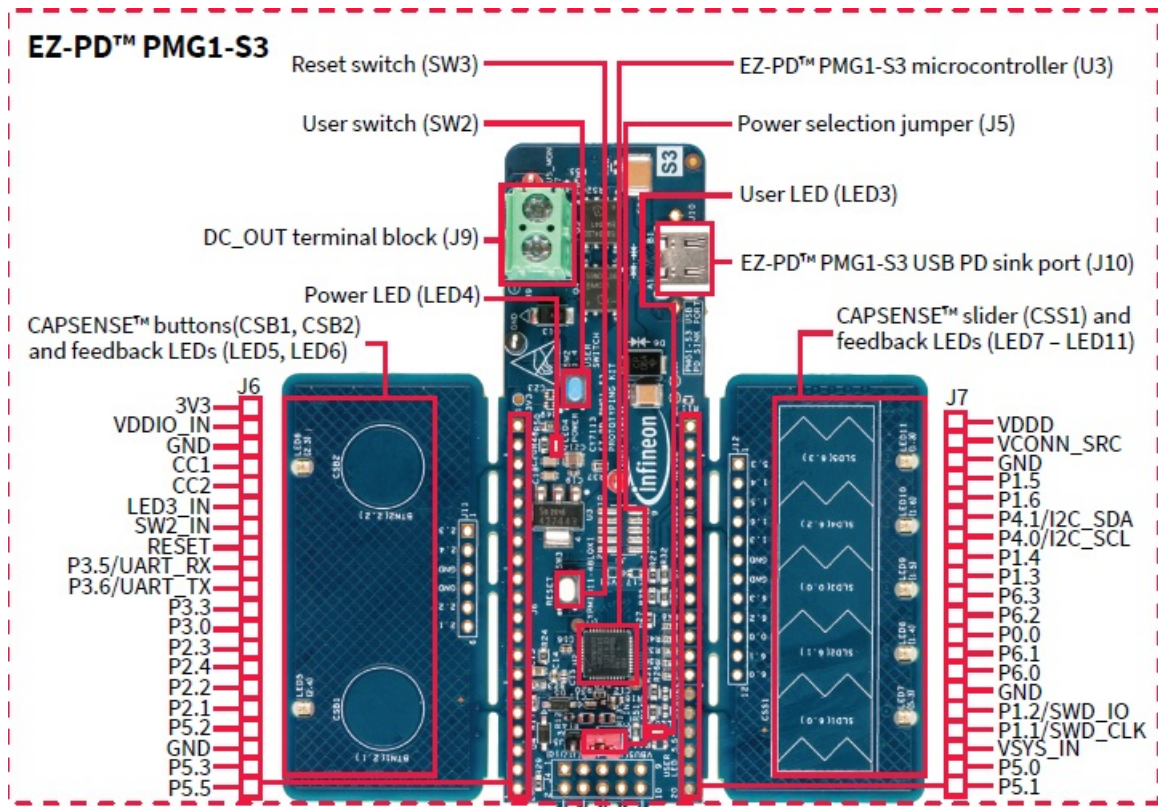
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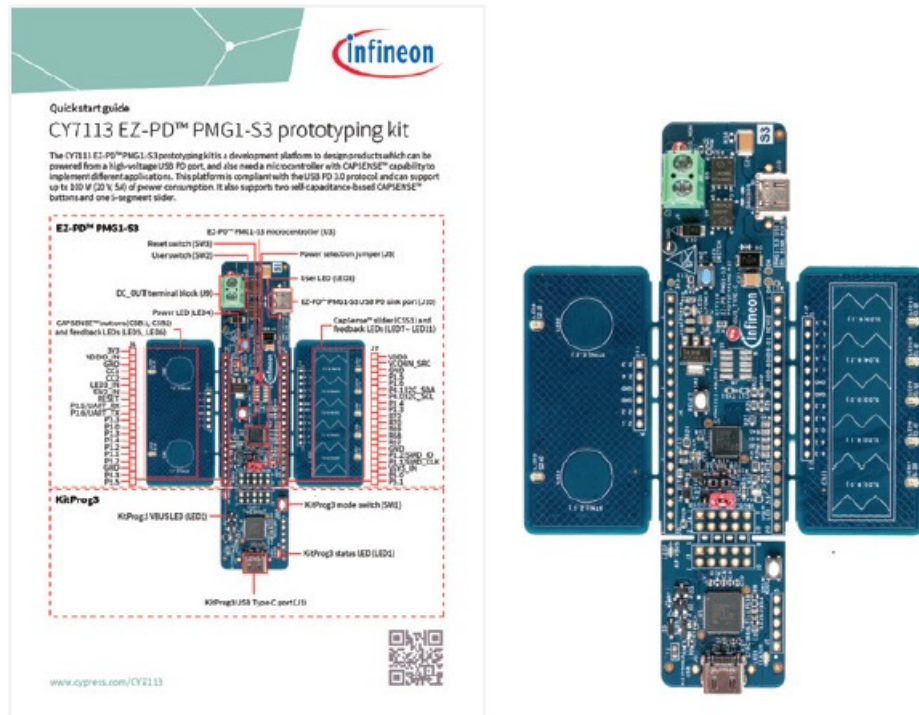


The CY7113 EZ-PD™ PMG1-S3 prototyping kit is a development platform to design products which can be powered from a high-voltage USB PD port, and also need a microcontroller with CAPSENSE™ capability to implement different applications. This platform is compliant with the USB PD 3.0 protocol and can support up to 100 W (20 V, 5A) of power consumption. It also supports two self-capacitance-based CAPSENSE™ buttons and one 5-segment slider.



Before you start

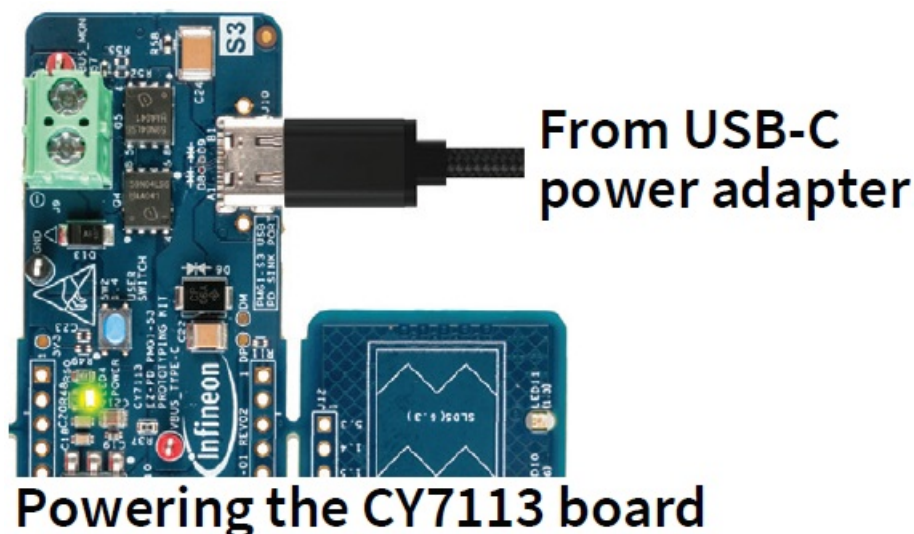
- Ensure that you have a USB PD 3.0-compliant USB-C power adapter (e.g., Apple 30 W USB-C power adapter) with a compatible USB PD 3.0-compliant Type-C cable.
- Download and unzip the CY7113 release package from the CY7113 web page ([cypress.com/CY7113](https://www.cypress.com/CY7113)).
- Ensure that the jumper shunt on the power selection jumper (J5) is placed at position 1 – 2 to select the USB-C power adapter as the power source.



CY7113 kit contents

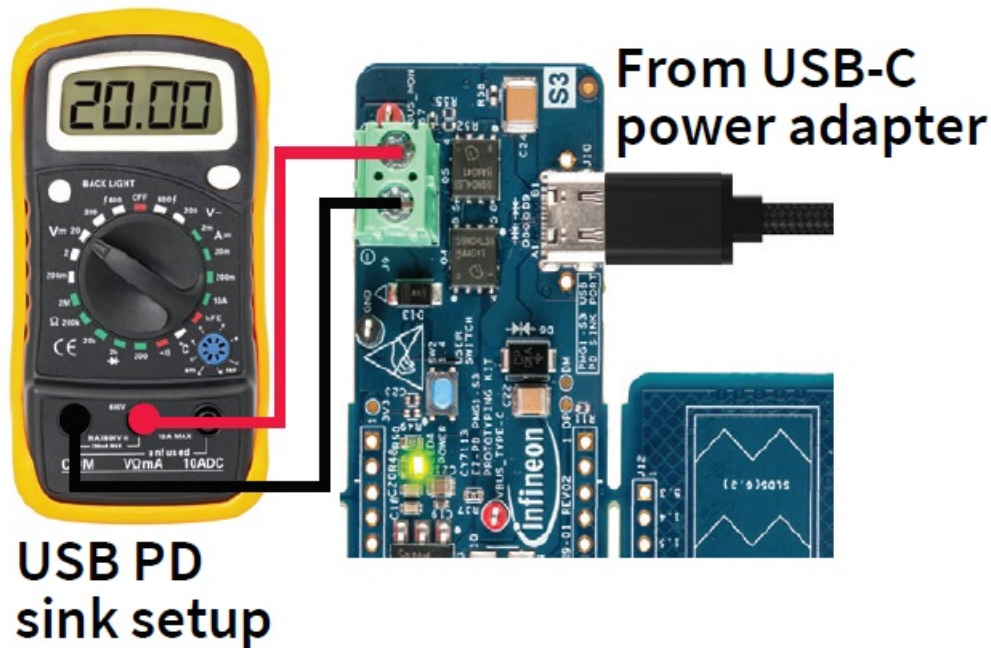
Step 1: Hardware connection

- Connect the USB PD sink port (J10) of the CY7113 board to the USB-C power adapter using the USB Type-C cable.
- Confirm that the power LED (LED4) glows green and the user LED (LED3) blinks green. Now, the kit is ready for use.



Step 2: Evaluating the USB PD sink functionality

- Measure the DC_OUT voltage by connecting a multimeter to the terminal block (J9). Confirm that the DC_OUT voltage value is within the 4.75 V – 21.00 V range. The actual value is determined by the maximum voltage which the USB-C power adapter can supply.
- Remove the multimeter and connect an external load to the terminal block (J9).

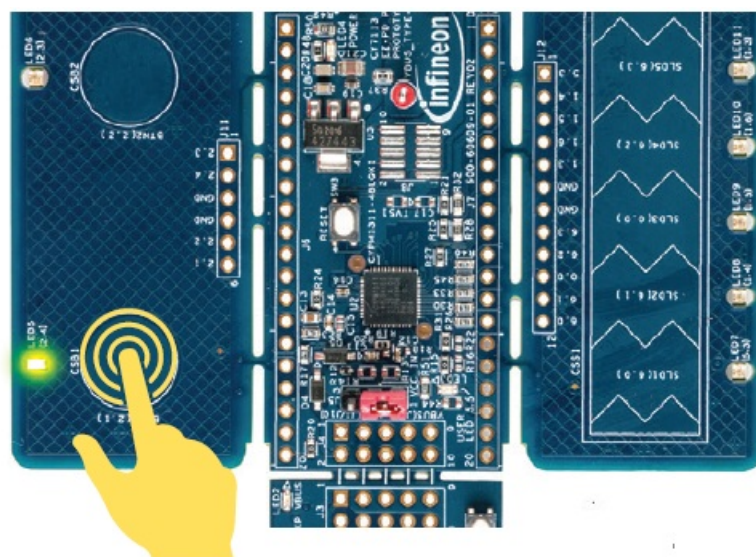


WARNING:

The maximum current that can be consumed by an external load cannot exceed 5 A.

Step 3: Evaluating the CAPSENSE™ functionality

- Touch a CAPSENSE™ button (CSB1/CSB2) by placing a finger on the circular button area. The feedback LED associated with the button (LED5/LED6) glows green until the finger is lifted.
- Slide the finger on the 5-segment slider (CSS1). The feedback LED associated with each slider segment (LED7 – LED11) glows green during the finger contact period.



Evaluating CAPSENSE™ features

Next steps

See the CY7113 kit user guide (available as part of the CY7113 kit release package) to learn more about the kit

features and how to develop applications using ModusToolbox™ software.

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