

Quick start guide

CY7112 EZ-PD™ PMG1-S2 MCU prototyping kit

The CY7112 EZ-PD™ PMG1-S2 MCU 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 to implement different applications. This platform is compliant with the USB PD 3.0 protocol and can support up to 100 W (20 V, 5 A) of power consumption.

EZ-PD™ PMG1-S2 MCU prototyping board

DC_OUT terminal block (J9)

User switch (SW2)

Power LED (LED4)

Power selection jumper (J5)

3V3

VDDIO_IN

GND

CC1

CC2

LED3 IN

SW2 IN

RESET

P1.1

P1.0

P3.2

P3.3

P3.4

P3.5

P3.6

P1.3

GND

NC

EZ-PD™ PMG1-S2 MCU (U2)

EZ-PD™ PMG1-S2 MCU USB PD sink port (J10)

Reset switch (SW3)

User LED (LED3)

VDDD

VCONN IN

GND

P2.4

P2.5

P0.1

P0.0

P2.6

P2.1

P2.0

P1.7

P1.5

P1.4

P1.6

P1.2

NC

GND

VSYS

KitProg3

KitProg3 VBUS LED (LED2)

KitProg3 USB Type-C port (J1)

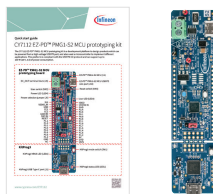
KitProg3 mode switch (SW1)

KitProg3 status LED (LED1)



Before you start

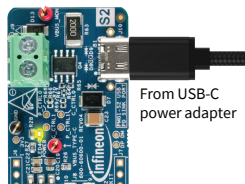
- › Ensure that you have a USB PD 3.0-compliant USB-C power adapter (e.g., Apple 30 W USB-C power adapter) with a compatible USB PD 3.0-compliant Type-C cable.
- › Download and unzip the CY7112 release package from the CY7112 web page (cypress.com/CY7112).
- › Ensure that the jumper shunt on power selection jumper (J5) is placed at position 1–2 to select the USB-C power adapter as the power source for the CY7112 board.



CY7112 kit contents

Step 1: Hardware connection

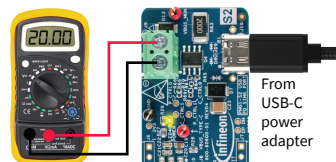
- › Connect the USB PD sink port (J10) of the CY7112 board to the USB-C power adapter using the USB Type-C cable.
- › Confirm that the power LED (LED4) glows green and the user LED (LED3) blinks green. Now, the kit is ready for use.



Powering the CY7112 board

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).



USB PD sink setup



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

Step 3: Next steps

- › See the CY7112 kit user guide (available as part of the CY7112 kit release package) to learn more about the features supported in the CY7112 hardware and how to develop applications using ModusToolbox™ software.



Application development using ModusToolbox™ software

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