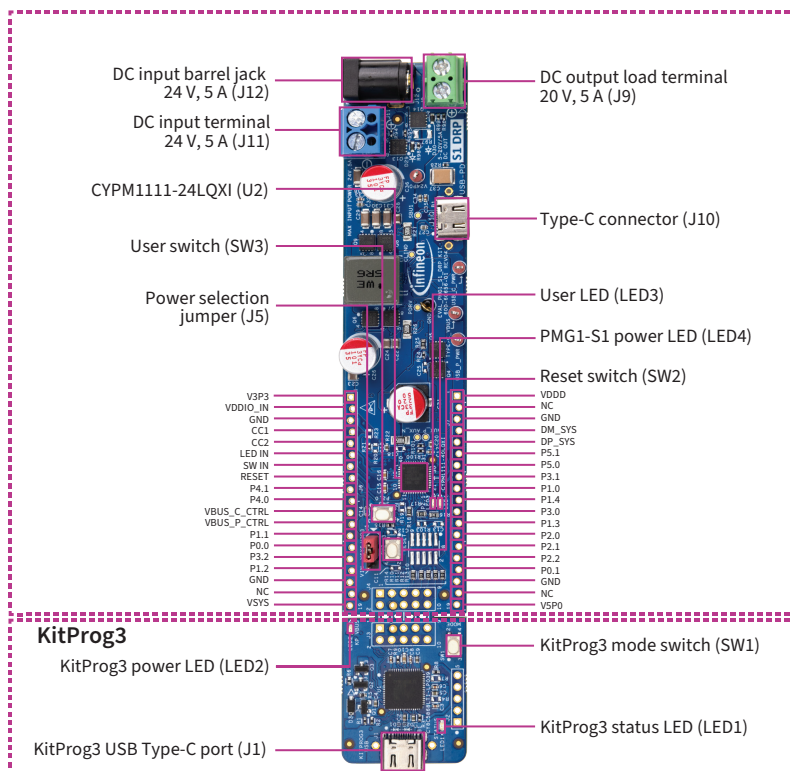
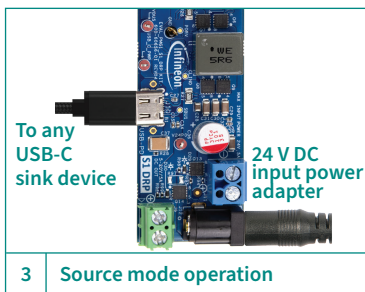
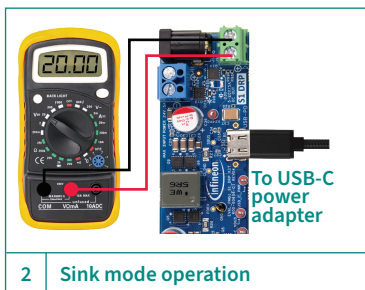
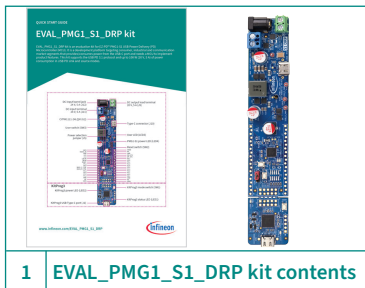


EVAL_PMG1_S1_DRP kit

EVAL_PMG1_S1_DRP kit is an evaluation kit for EZ-PD™ PMG1-S1 USB Power Delivery (PD) Microcontroller (MCU). It is a development platform targeting consumer, industrial and communication market segments that provides/consumes power from the USB-C port and needs a MCU to implement product features. This kit supports the USB PD 3.1 protocol and up to 100 W (20 V, 5 A) of power consumption in USB PD sink and source modes.





Before you start

- 1 Ensure that you have a USB PD 3.1-capable USB-C power adapter with a compatible USB PD 3.1-capable Type-C cable for sink operation.
- 2 Ensure that you have a 24 V DC power supply or a barrel jack power adapter (2.50 mm ID, 5.50 mm OD) for source operation.
- 3 Ensure that the jumper shunt on the power selection jumper (J5) is placed at position 1–2 to select the USB-C power adapter or DC input as the power source.

Demo 1: Sink operation

- 1 Connect the USB PD port (J10) of the EVAL_PMG1_S1_DRP kit to the USB-C power adapter using a USB Type-C cable.
- 2 Confirm that the power LED (LED4) glows green and the user LED (LED3) blinks green to indicate that the PMG1-S1 device is in sink mode of operation.
- 3 Measure the DC_OUT voltage by connecting a multimeter to the green load terminal block (J9). Confirm that this voltage is between the 4.75 V–21 V range. The actual value is determined by the maximum voltage which the USB-C power adapter can supply.
- 4 Remove the multimeter and connect an external DC load to the terminal block (J9). The external load should start drawing the power from the Type-C adapter.

Demo 2: Source operation

- 1 Connect the 24 V DC power supply to the blue source terminal (J11) of the EVAL_PMG1_S1_DRP kit or connect a 24 V compatible DC power adapter to the DC input barrel jack connector (J12).
- 2 Confirm that the power LED (LED4) glow green.
- 3 Connect the USB Type-C device (e.g. a mobile or power bank) to the USB PD port (J10) of the EVAL_PMG1_S1_DRP kit. The user LED (LED3) glow green to indicate the PMG1_S1_DRP kit device is in source mode of operation.
- 4 Observe whether the USB Type-C sink device turns on and performs normal operation.



Warning: The maximum current that can be drawn by an external load or USB Type-C device cannot exceed 5 A.

Next steps

- Download and extract the EVAL_PMG1_S1_DRP release package from the webpage (www.infineon.com/EVAL_PMG1_S1_DRP).
- See the EVAL_PMG1_S1_DRP kit user guide (available as part of the EVAL_PMG1_S1_DRP kit release package) to learn more about the kit features and how to develop applications using ModusToolbox™ software.

