CY4532 EZ-PD™ CCG3PA EVALUATION KIT (EVK)

STEP 1

Unpack the kit contents. The CY4532 EVK helps to evaluate Cypress's EZ-PD™ CCG3PA Controller for USB Type-C Power Adapter (PA) and USB Type-C Power Bank (PB) applications. The EVK is configured for the PA application by default. Follow steps 2 and 3 to evaluate this application.
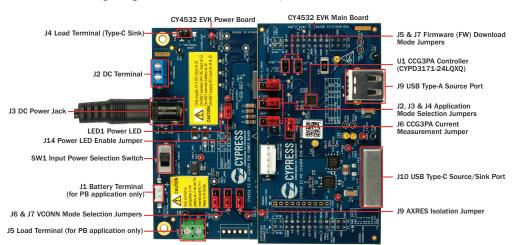

CY4532 EVK Power Board
CY4532 EVK Main Board
12 V 50.4 W AC/DC Power Adapter

Note 1: The EVK is shipped with the Main Board pre-mounted on the Power Board. No further assembly required.

Note 2: While the USB Type-C Power Adapter application is meant for AC/DC charging, this EVK hardware uses DC/DC regulators as the power source for safety reasons.

Note 3: This document uses board images with Rev06 of the hardware. Actual hardware revision may be higher.

STEP 2

Verify that the jumper settings on the boards match the settings in the table/image below.

CY4532 EVK Power Board	CY4532 EVK Main Board	
J6, J7, J9 & J14	J5 & J7	J2, J3, J4 & J6
Short pins 1 & 2	Open	Short pins 1 & 2

Verify that the Input Power Selection Switch (SW1) is set to the DC Input position. Connect the AC/DC power adapter (provided with the kit) to the DC Power Jack (J3) of the CY4532 EVK Power Board. Plug the other end of the power adapter into an AC power socket. The Power LED (LED1) on the CY4532 EVK Power Board glows green to indicate that the kit is powered.
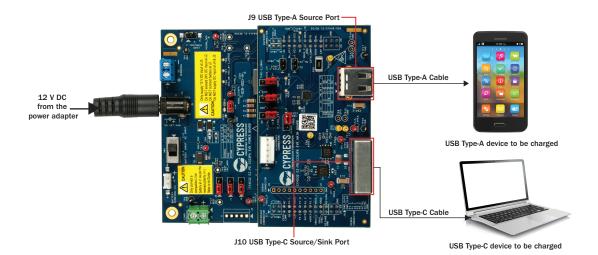

CY4532 EVK Power Board
CY4532 EVK Main Board

J4 Load Terminal (Type-C Sink)
J2 DC Terminal
J3 DC Power Jack
LED1 Power LED
J14 Power LED Enable Jumper
SW1 Input Power Selection Switch
J1 Battery Terminal (for PB application only)
J6 & J7 VCONN Mode Selection Jumpers
J5 Load Terminal (for PB application only)

J5 & J7 Firmware (FW) Download Mode Jumpers
U1 CCG3PA Controller (CYPD3171-24LQXQ)
J9 USB Type-A Source Port
J2, J3 & J4 Application Mode Selection Jumpers
J6 CCG3PA Current Measurement Jumper
J10 USB Type-C Source/Sink Port
J9 AXRES Isolation Jumper

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STEP 3

Connect a USB Type-C device such as laptop/mobile phone that can consume power over a USB Type-C port to J10 of the CY4532 EVK Main Board. Connect a USB Type-A device such as a mobile phone that can consume power over a USB Type-A port to J9 of the CY4532 EVK Main Board. Verify the charging status on the connected devices.

Note that charging through the CY4532 USB Type-C and USB Type-A ports are independent features. Devices can be connected/disconnected to either of these ports or both the ports in any sequence.

J9 USB Type-A Source Port

12 V DC from the power adapter

USB Type-A Cable

USB Type-A device to be charged

USB Type-C Cable

USB Type-C device to be charged

J10 USB Type-C Source/Sink Port

Note 4: The voltage provided by the CY4532 EVK to the USB Type-C device is decided based on the USB Power Delivery (PD) contract negotiated between the CY4532 EVK and the USB Type-C device.

STEP 4

For more details, refer to the *CY4532 Kit Guide.pdf*** located at *C:\Program Files (x86)\Cypress\ CY4532 EZ-PD CCG3PA EVK\1.0\Documentation* on 64-bit Windows operating systems or *C:\Program Files\Cypress\CY4532 EZ-PD CCG3PA EVK\1.0\Documentation* on 32-bit Windows operating systems. Refer to Chapter 5 of the Kit Guide to use the CY4532 EVK for USB Type-C Power Bank application.

** Download and install the CY4532 CCG3PA EVK setup file from www.cypress.com/CY4532 to access the latest hardware design files, firmware, and documentation.

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