

CYPRESS

EZ-PD™ CCG3PA: USB TYPE-C PORT CONTROLLER WITH POWER DELIVERY



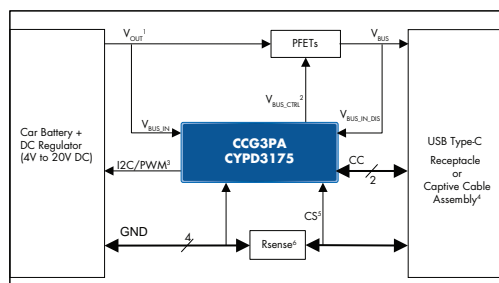
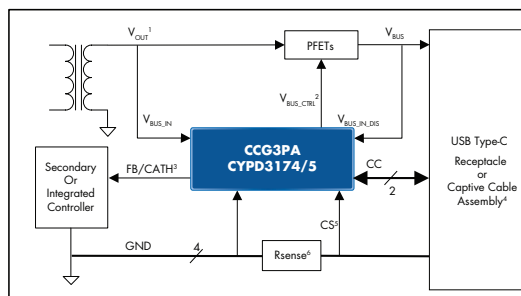
PRODUCT OVERVIEW

INTRODUCTION:

EZ-PD CCG3PA is a single-chip USB Type-C port controller with Power Delivery (PD). CCG3 is ideal for various applications such as power adapters, mobile chargers, car chargers and power banks. CCG3PA is a one-chip solution that integrates VBUS voltage regulation a 30V-tolerant regulator, VBUS to CC short protection, a high-voltage PFET gate driver and ESD protection. CCG3 is a fully programmable solution, that supports Power Delivery 3.0 Programmable Power Supply and Quick Charge 4.0 standards.

Type-C Power Adapter/Mobile Charger

- Integrates 30V-tolerant regulator, including VBUS PFET Gate Drivers, OVP and OCP circuitry
- Integrates voltage regulation and low-side current sense to support PD3.0 PPS and QC4.0
- Integrates VBUS to CC short protection and ESD protection

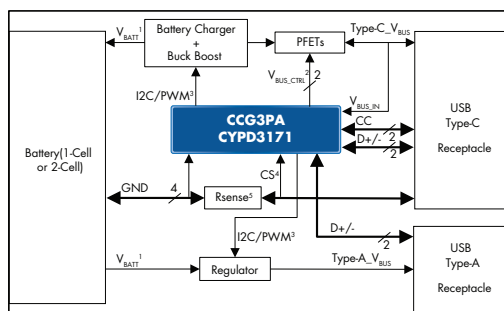


USB Type-C Car Charger

- Integrates 30V-tolerant regulator, including VBUS PFET Gate Drivers, OVP and OCP circuitry
- Supports PWM/I2C/GPIO interface to control VBUS
- Integrates VBUS to CC short protection and ESD protection

Type-C PowerBank

- Integrates VBUS PFET Gate Drivers, OVP and OCP circuitry and low-side current sense
- Supports PWM/I2C/GPIO interface to control VBUS
- Integrates VBUS to CC short protection and ESD protection
- CCG3PA controls USB Type-C and Type-A port, reducing BOM cost for Power Bank



FEATURES

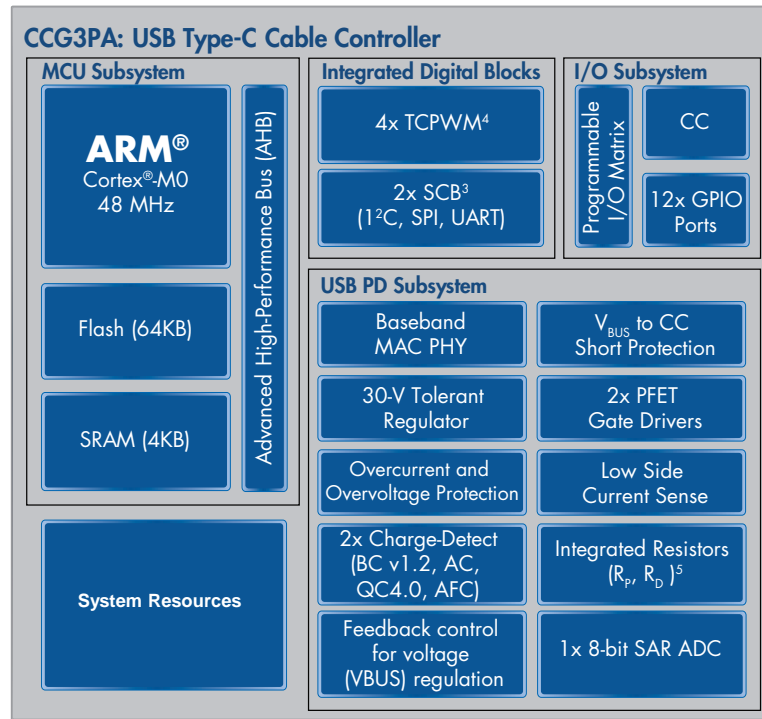
- USB Power Delivery 3.0 PPS
- Qualcomm QC 4.0
- Integrates Voltage Regulation and Current Sense Amplifier
- Integrates 30V-tolerant regulator
- VBUS to CC Short protection
- Integrates VBUS gate drivers
- OVP and OCP
- 64KB Flash Memory
- ESD on VBUS, CC and DP/DM

PACKAGES:

24-pin QFN (16 mm²), 16-pin SOIC (60 mm²)

APPLICATIONS

Mobile Chargers | Power Adapter | Car Chargers | Power Bank



EZ-PD CCG3PA Block Diagram

EZ-PD CCG3PA PORTFOLIO

Part number	Application	Role	Termination Resistor	Pin/Package
CYPD3171-24LQXQ	Power Bank	DRP	R_{pr} , R_D , R_D-D_B	24-pin QFN
CYPD3174-16SXQ	Power Adapter	DFP	R_p	16-pin SOIC
CYPD3175-24LQXQ	Mobile Chargers, Car Chargers	DFP	R_p	24-pin QFN

GET STARTED NOW

For more information, please contact cvg3pa@cypress.com or visit www.cypress.com/cvg3pa

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