

## USB Type-C PD3.0 + QC4.0 Controller with Legacy Capability

### FEATURES

- USB Type-C 1.2 compatible
- Compliant with USB PD 3.0 v1.1
- Support Programmable Power Supply (PPS)
- Support Vout 20mV/step from 3 to 20V
- Support Current limit 50mA/step up to 6A
- USB PD transceiver with high noise immunity
- Built-in CC/CV controller
- Support e-Marker cable detection
- Built-in Vconn switch with OCP protection
- Cable compensation for different load condition
- Programmable for configuration and ID
- Support OCP/SCP/OTP/UVF with auto-restart
- Built-in 5V/1.8V LDO
- Low standby current below 500uA

- Support Synchronous Rectifier(CY2311-20L)
- Maximum 32V input voltage rating
- Support non-USB PD and auto detection with:
  - Qualcomm QC 3.0/4.0 built-in
  - Apple Legacy built-in
  - BC 1.2 Legacy built-in
  - FCP
- Package: TSSOP-16L / TSSOP-20L

### APPLICATIONS

- AC adapters
- Car chargers
- Power banks
- Power hubs
- USB PD converter

### GENERAL DESCRIPTION

CY2311 is an USB Type-C Power Delivery Controller dedicated to power source application with legacy capability. It is compatible with USB Type-C specification rev 1.2 and USB Power Delivery specification rev 3.0 v1.1. CY2311 can support PPS APDO with 20mV/step resolution and 50mA/step current resolution for power management. There are rich power functions embedded on the chip so as to reduce total BOM cost. It also supports SOP' command for e-Marker detection, and can be programmed through CC channel. In addition, it support QC 4.0, BC 1.2, and Apple legacy with auto detection. Figure 1 shows a low BOM-cost USB PD solution based on CY2311.

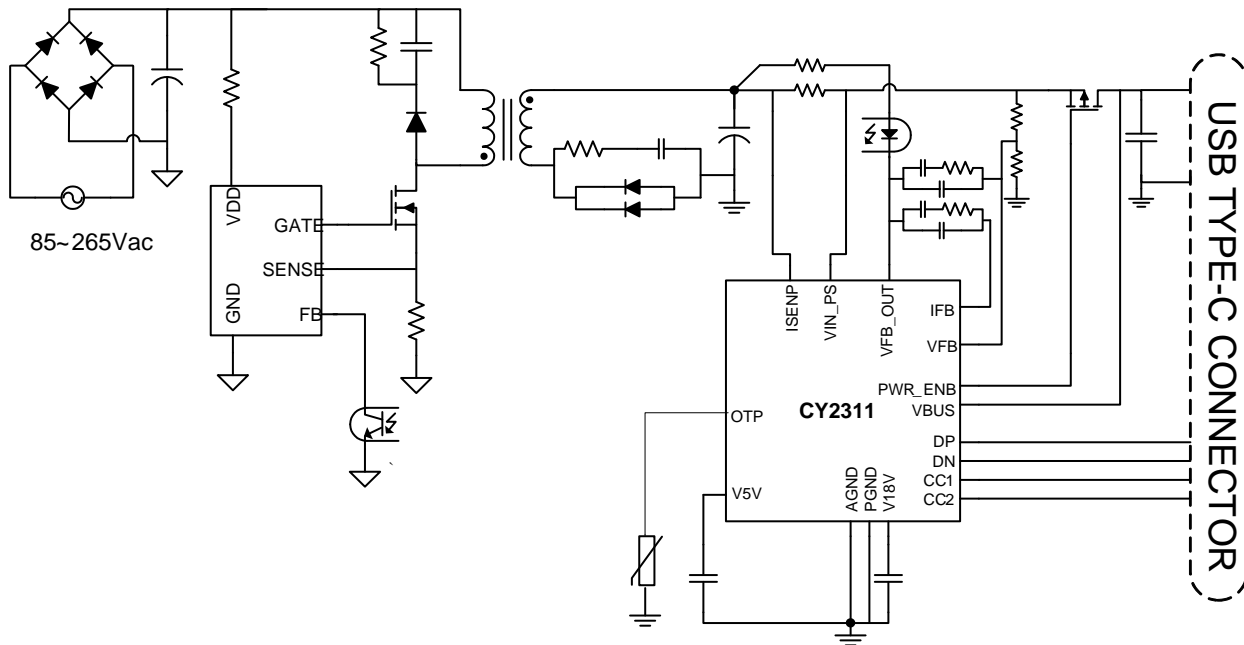


Figure 1. A low BOM-cost USB PD Solution Based on CY2311