

# 65W 1C USB PD3.0&PPS Power Adapter EVB1 User Guide

## General Description

65W 1C USB PD 3.0&PPS power adapter EVB1 is a small size and high power density solution, which meets the efficiency requirements of energy efficiency regulations and meets safety standards. The design is a flyback power supply topology, the primary side is a PWM-CCM/QR controller to drive GaN MOS, the secondary side uses synchronous rectification, and the Type C port supports PD and PPS. The AC-DC power stage consists of two main PREMA parts - 1) Primary side CCM/QR flyback controller - PP5200, providing DCM/CCM PWM switching, 2) 650V/200mohm GaN transistor - PP6262,3) Second side SR MOSFET controller-PP6008.

## Key Features

The 65W 1C PD GaN-based adapter reference design provides a cased turn-key solution with the following key features:

- Compact 50.64mm\*33.94mm\*34.12mm Dimensions Size.
- Very High power density up to 18W/inch<sup>3</sup> and high efficiency above 90%;
- USB Type-C1 Port support maximum output of 65W(20V/3.25A) with PD3.0,PPS, Function;
- Cost effective topologies with QR Flyback;
- Support most PD protocols including PD2.0/PD3.0: 5V/3A、9V/3A、12V/3A、15V/3A、20V/3.25A  
PPS: 3.3-21V/3A;
- Comprehensive system protections such as OVP, OCP, SCP, OLP and OTP;
- Average efficiency meet CoC Ver5 requirement;
- Meets FCC/EN55032 Class B Conducted EMI standard;



L=46.65mm

W=29.85mm

H=29.07mm