

# 60W USB-C/PD 3.0 EVB with FAN6390

## Innovation

- Full USB Type-C Power Delivery (PD) 60W solution centered on the FAN6390, highly integrated synchronous charging controller
- Plug & Play and state machine based, no firmware is needed for USB PD 3.0 with PPS decoding. Parametrization possible with OTP.

## Value Advantage

- **Compact size of 68 x 50 x 20 [mm]**
  - Power density of 14.46 [W/inch<sup>3</sup>]
- **Less BOM**
  - Two controllers only, one is at primary and the other is at secondary
  - No bulky additional circuit and simple transformer configuration
- **High efficiency with conventional flyback**
  - 91.38% and 91.80% at 20V/3A, 115V<sub>AC</sub> and 230V<sub>AC</sub> respectively
  - 91.43% and 91.26% average eff. at 20V/3A, 115V<sub>AC</sub> and 230V<sub>AC</sub> respectively
- **Lower PCB temperature at maximum power output**
  - Primary MOSFET 90.4 [°C]
  - Transformer 91 [°C]
- **Flexibility and Diagnostics like over temperature (int/ext), OVP, UVP, ...**

## Current Proposition

- Simple, cost efficient and high efficient USB-C/PD TA (Travel Adaptor) charger made based on FAN6390 and ecosystem

