MICROCONTROLLERS AND CONNECTIVITY

4-in-1 ESC for drones with PSOC™ Control C3

PSOC™ Control C3M6 enables multi-motor control and BOM cost reduction in electronic speed controllers (ESC) for drone implementations. The low-cost Arm® Cortex®-M33 MCU with additional analog and digital peripherals enhanced for motor controls is ideal for 4-in-1 ESC systems and even full drone implementations when paired with PSOC™ Edge for flight controllers.

Benefits

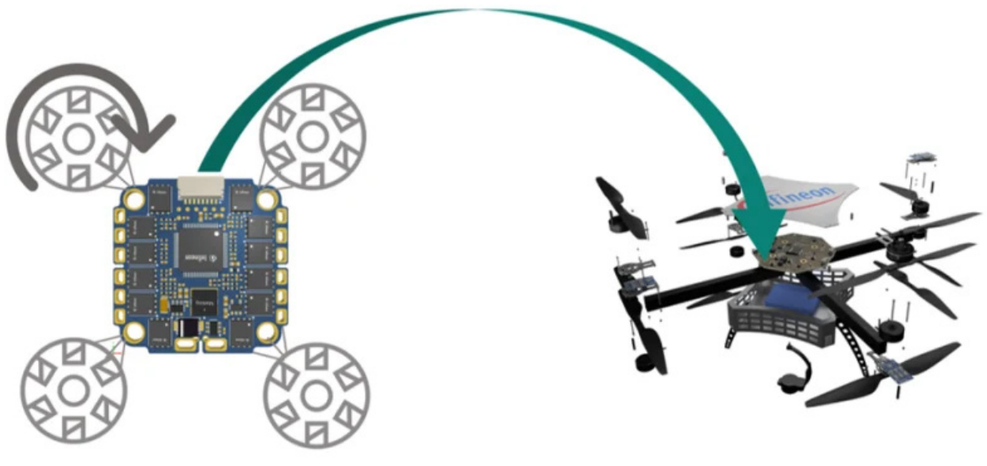
- Lightweight system with sensorless motor control algorithm and precise current measurement, eliminating need for physical position sensors
- High efficiency leveraging field-oriented control (FOC) algorithm
- Communication compatible with DShot
- BOM cost reduction

Highlight products

- PSOC™ Control C3M6 MCU with Arm® Cortex®-M33, 180 MHz
- EiceDRIVER™ gate driver
- OptiMOS™ 8 MOSFET
- XENSIV™ TMR-based current sensor

Applications

- Multi-rotor drones: quadcopters, hexacopters, and other multi-copter configurations
- Camera gimbals: Leveraging the multi-motor control capabilities of the PSOC™ C3M6 for 4-in-1 controllers
- Multi-motor (autonomous) vehicles and other robotic systems



Scan for more information