Power Application Controller® Ecosystem (PAC)

Full System and Development Support

Qorvo’s PAC, a family of single-IC solutions for motor control and power control applications, offers configurable, integrated and scalable solutions from 5.5 V to 600 V BLDC motor control applications. Just as important, Qorvo delivers best-in-class, full system and development support called the PAC ecosystem. From evaluation boards to free of charge (FOC) IP to applications support for sensor/sensorless BEMF and FOC to advanced algorithms, customers have tools and IP options at the ready.

Advanced Algorithms
- FOC Motor Auto-tuning
- Motor Failure Detection

Hardware Support
- Motor Control EVK
- Application Expertise Design

Motor Control Applications
- Sensored/Sensorless BLDC
- Sensored/Sensorless FOC
- Peripheral Examples

Application Specific Power Drivers
- High-side Gate Drivers
- Low-side Gate Drivers
- Open-drain Drivers

ARM CORTEX-M0/M4F MICROCONTROLLER CORE + MEMORY
- 60 MHz/150 MHz
- 32 KB/128 KB FLASH
- 8 x/32 KB SRAM
- HW Multiplier/Divider
- 24-bit ADC, 16-bit ADC
- 24-bit SysTick, NVIC

Data Acquisition and Sequencer
- 10 b 1 MSPS
- 12 b 2.5 MSPS ADC
- Auto-sampling Sequencer

Configurable Analog Front-End
- 3 Differential PGAs
- 4 Single-ended PGAs
- 4 Comparators
- 2 DACs (10-bit, 8-bit)
- Temperature Monitor

IDE/Programmer
- IAR/Keil/Eclipse
- J-Link/I-Jet

FOC IP Features
- FOC Control
- Control Modes
- MTPA
- Single/Triple Shunt
- Sensorless Estimator
- FOC Configuration GUI
- Initial Position Detection (IPD)
- Start-in-motion (SIM)
- Field Weakening
- Stall Detection
- Open Phase Detection (OPD)
- Etc.

Miscellaneous Tools
- UART Boot Loader
- UL/IEC 60730 Class B Safety
- LIN Master/Slave Driver
- CAN Controller/Driver
- Gang Programmers

View Qorvo’s full line of Power Management Products here: qorvo.com/products/power-management

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