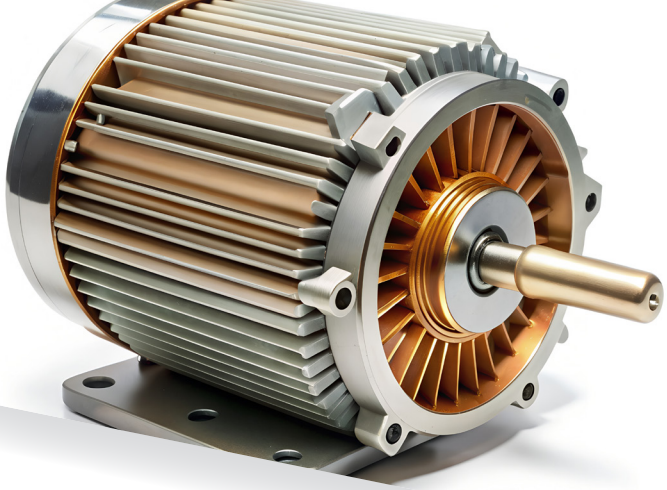
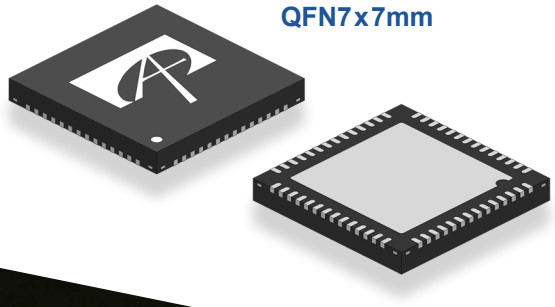
ALPHA & OMEGA SEMICONDUCTOR



Motor Controllers MCU's

Dual-core MCU Motor Controller products provide a highly integrated solution for driving sensorless or sensored BLDC/PMSM motors, single-phase/three-phase induction motors and servo motors.

- Motor Controller MCU's integrate an 8051 core and a motor control engine (ME)
- The 8051 core performs parameter configuration and routine processing while the ME core integrates FOC, MDU, LPF, PID and SVPWM modules that allow for automatic calculation of FOC or square-wave control



MCU Motor Controllers

Motor Controllers MCU's

Features

- Dual-core: 8051 core and Motor Control Engine (ME)
- ME core integrates the LPF module, PI regulator, BLDC module, FOC module and the MDU auxiliary computing module
- 16kB Flash ROM with CRC, self-program and code protection
- 256 bytes IRAM and 768 bytes XRAM
- 34 GPIO's
- Dual-channel DMA: supporting data transmission via I2C/SPI/UART
- PWM Output
- 12 channel, 12-bit ADC
- 8-bit DAC
- 3 high-speed Op Amps
- 3-channel Comparator
- Automatic commutation, cycle-by-cycle current limiting and Hall/BEMF-based position sensing for BLDC motor control

Applications

- Sensorless FOC
- Power Tools
- e-Scooters
- e-Bikes

Product Selection Table

Part Number	Package	Description
AOZ6812QI	LQFP7x7-48L	Dual-core, Three-Phase Motor Control MCU ideal for trapezoidal control
AOZ6816QI	LQFP7x7-48L	Dual-core, Three-Phase Motor Control MCU ideal for sensorless FOC
AOZ6866QI	QFN7x7-56L	Dual-core, Three-Phase Motor Control MCU with integrated FET drivers

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