



DM320198 - ATSAME70 Motor Control Card



Part Number: DM320198

Summary:

The ATSAME70MOTOR is an MCU card for Motor control starter kit - ATSAMxxxBDLCxxx-STK. The hardware has the SMART ARM based MCU, ATSAME70Q21A-AN, with integrated on-board debug support. The MCU card can be directly used with the currently available ATSAMD21BLDC24V-STK, a low voltage BLDC, PMSM motor control starter kit.

The ATSAMD21BLDC24V Base board can be found here -

[View More](#)

 Documents and Software	 Overview	Features	Additional Resources	Related Tools
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Product Features

MCU Features:
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SAM E70 series of Flash microcontrollers (MCUs) operates at a maximum speed of 300MHz and features up to 2048kB of Flash, 16KB each instruction plus data cache and up to 384KB of SRAM. A QSPI, static memory and SDRAM interface offer further memory extension options. The SAM E70 series offers a rich set of advanced connectivity peripherals, including 10/100Mbps Ethernet MAC supporting IEEE 1588, dual CAN-FD 1.0, High Speed USB Host and Device with on-chip high-speed phy, Camera Interface, one SD/MMC interface, one SSC supporting TDM and I2S, 8 UARTs, 5 SPI and 3 I2C™.

- ARM Cortex-M7 core running at 300MHz
- Double Precision Floating point unit (FPU) for high-precision computing and accelerated data processing
- High-performance internal memory architecture with user configurable Tightly Couples Memories, System memory, and 16kB I-cache and D-cache
- Dual Bosch CAN-FD 1.0 Controller
- 10/100 Ethernet MAC with IEEE1588
- High Speed USB Host and Device with on-chip high-speed Phy
- CMOS image sensor interface
- Integrated Security features including AES hardware encryption engines, TRNG and SHA-based memory integrity checker
- Advanced analog front end based on dual 2Msps 12-bit ADCs including 16-bit average, up to 24 channels, offset error correction and gain control
- Dual 2Msps, 12-bit DAC and analog comparator
- 64 to 144-pin package options
- Extended industrial temperature range: -40°C to 105°C