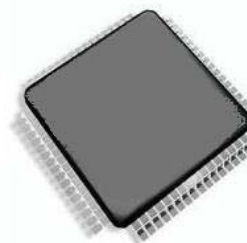




ARM-based 32-bit MCU with 16 or 32 KB Flash, USB, CAN, 6 timers,  
2 ADCs, 6 com. interfaces

## Features

- ARM 32-bit Cortex™-M3 CPU Core
  - 72 MHz maximum frequency, 1.25 DMIPS/MHz (Dhrystone 2.1) performance at 0 wait state memory access
  - Single-cycle multiplication and hardware division
- Memories
  - 16 or 32 Kbytes of Flash memory
  - 6 or 10 Kbytes of SRAM
- Clock, reset and supply management
  - 2.0 to 3.6 V application supply and I/Os
  - POR, PDR, and programmable voltage detector (PVD)
  - 4-to-16 MHz crystal oscillator – Internal 8 MHz factory-trimmed RC
  - Internal 40 kHz RC
  - PLL for CPU clock
  - 32 kHz oscillator for RTC with calibration
- Low power
  - Sleep, Stop and Standby modes
  - VBAT supply for RTC and backup registers
- 2 x 12-bit, 1  $\mu$ s A/D converters (up to 16 channels)
  - Conversion range: 0 to 3.6 V – Dual-sample and hold capability – Temperature sensor
- DMA
  - 7-channel DMA controller
  - Peripherals supported: timers, ADC, SPIs, I2Cs and USARTs
- Up to 51 fast I/O ports
  - 26/37/51 I/Os, all mappable on 16 external interrupt vectors and almost all 5 V-tolerant
- Debug mode
  - Serial wire debug (SWD) & JTAG interfaces
- 6 timers
  - Two 16-bit timers, each with up to 4 IC/OC/PWM or pulse counter and quadrature (incremental) encoder input
  - 16-bit, motor control PWM timer with dead-time generation and emergency stop
  - 2 watchdog timers (Independent and Window)
  - SysTick timer 24-bit downcounter
- 6 communication interfaces
  - 1 x I2C interface (SMBus/PMBus)
  - 2 x USARTs (ISO 7816 interface, LIN, IrDA capability, modem control)
  - 1 x SPI (18 Mbit/s)
  - CAN interface (2.0B Active)
  - USB 2.0 full-speed interface
- CRC calculation unit, 96-bit unique ID
- Packages



LQFP48 (7X7)



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