# LT32U03

## 32Bit Micro Controller

**LT32U03** is a high performance 32-bit MCU. It contains a Cortex M4 core that can run up to 150MHz operating frequency. The LT32U03 includes high capacity 508KB flash memory, 256KB SRAM and 8KB high-speed instruction data sharing Cache, and also provides a variety of standard communication interfaces, including 3 sets of SPI, 3 sets of SCI (Uart), I2C, PWM, high precision 12-bit ADC, DAC output, USB interface, and multiple interrupt inputs and GPIO interfaces.

The Cortex M4 core is highly processed with IEEE754-compatible single-precision FPUs. Coupled with fast interrupt response, the built-in sleep mode enables extremely low power consumption. The 8KB Cache module supports group command and line command, as well as write-through and write-back modes, in line with the USB 2.0 high-speed (480 Mbps) functional standard. LT32U03 provides multiple sets of SCI and SPI interfaces, support elastic interface configuration, suitable for external Bluetooth, WiFi and other modules. The internal AES/DES algorithm module supports standard encryption and decryption algorithms, as well as the cyclic redundancy check (CRC) module, watchdog module (WDT), RTC (Real Time clock) and other complete functional configurations.
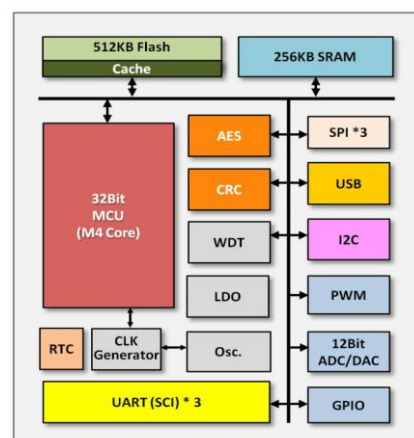
LT32U03 has excellent computing power, sufficient Flash memory and SRAM, with multiple sets of SPI Interface, multiple sets of SCI Interface (Uart), USB 2.0 transmission interface, can be applied to all kinds of electronic instruments, equipment, meters, high-end household appliances, smart electronic toys, smart door locks, all kinds of electronic controllers, and the need for expansion modules or USB transmission of various electronic products.

## Features

- 32bit M4 Micro Processor, Max. 150MHz System Clock
- Embedded 508KBytes Flash, 256KBytes SRAM and 8KBytes Cache Memory
- Support USB2.0 Full Speed
- Support Three SPI and SCI/UART Port
- Support PWM and I2C Interface
- Support 12bit ADC and DAC Converter
- Support Multiple Sets Interrupt and GPIO
- Support Watch-Dog Timer
- Support DMA Controller
- Embedded AES/DES Algorithm Module
- Built-in Real Time Clock (RTC)
- Embedded LDO for Core Logic
- Support Power Management
- Support Internal Clock Generator
- Package: QFN-48, QFN-68, LQFP-100
- Operation Voltage: 3.0V~3.6V

## Internal Block



## Part Number

| Model | Package |
|---|---|
| LT32U03A | 48Pin QFN (QFNWB6x6-48L) |
| LT32U03B | 68Pin QFN (QFNWB8x8-68L) |
| LT32U03C | 100Pin LQFP (LQFPWB14x14-100L) |

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