**Stm32**

The STM32F103C6 is a microcontroller from STMicroelectronics' STM32F1 series, specifically part of the STM32F103xC family. It is based on the ARM Cortex-M3 core and offers a range of features suitable for various embedded applications. Here are some of its key features and specifications:

1. Microcontroller Core:

- ARM Cortex-M3 32-bit RISC core

- Maximum operating frequency of up to 72 MHz

- Single-cycle multiplication and hardware division

2. Memory:

- 32 KB Flash memory for program storage

- 6 KB of SRAM (Static Random Access Memory) for data storage

- Flash memory is programmable in single-word or single-page mode

3. I/O and Peripherals:

- Up to 37 General Purpose I/O (GPIO) pins, configurable as input/output

- Multiple timers/counters: 1 x 16-bit advanced-control timer, 2 x 16-bit general-purpose timers, and 1 x 16-bit basic timer

- 2 x I2C (Inter-Integrated Circuit) interfaces

- 3 x USART (Universal Synchronous/Asynchronous Receiver/Transmitter) interfaces

- 1 x SPI (Serial Peripheral Interface) interface

- 1 x USB 2.0 Full-Speed interface (12 Mbps)

4. Analog:

- 10-bit ADC (Analog-to-Digital Converter) with up to 10 channels

- 2 x 12-bit DAC (Digital-to-Analog Converter)

5. Communication Interfaces:

- CAN (Controller Area Network) 2.0B interface

- I2S (Inter-IC Sound) interface for audio applications

- SDIO (Secure Digital Input/Output) interface for SD cards and multimedia cards

6. Power Supply:

- Voltage supply range: 2.0V to 3.6V

- Low-power modes for energy efficiency

7. Development and Debugging:

- JTAG and SWD (Serial Wire Debug) interfaces for programming and debugging

- In-system programming (ISP) and in-application programming (IAP) support

