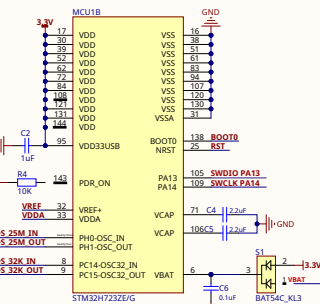
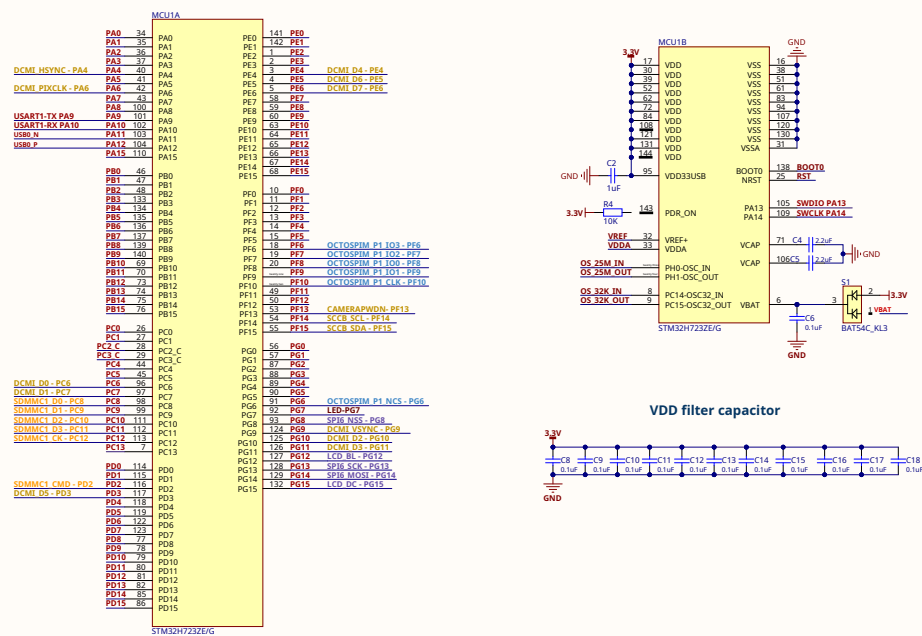
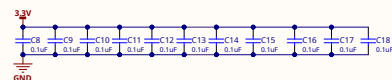


Here, the STM32H723 is divided into two parts, but they are actually the same chip.

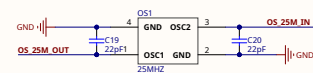


VDD filter capacitor



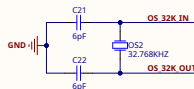
25M master clock crystal

Package: 3225 4P

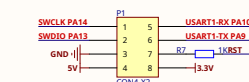
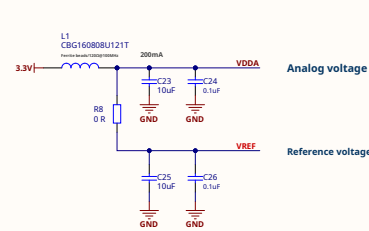


RTC clock crystal oscillator 32.768KHz

Package: 3215 2P



SWD and USART1 interfaces



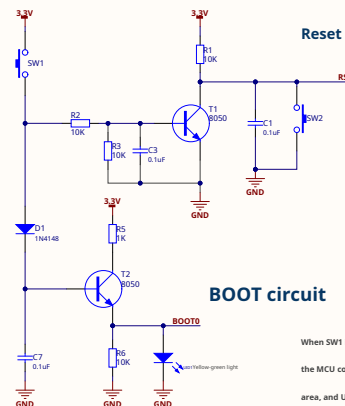
1. The purpose of the 1K resistor here is to provide current limiting protection when the user connects the power line to RST by mistake.
2. It is recommended to use 5V power supply, and then get 3.3V to the MCU through the on-board voltage regulator chip to avoid damage to the MCU due to accidental input of high voltage.



Reset Circuit

R1, C1 and SW2 form a conventional reset circuit.

Trigger MCU reset when power is turned on or SW2 is pressed



In normal state, the two transistors are cut off, and BOOT0 is grounded through a 10K resistor.

MCU boots from on-chip flash

BOOT circuit

When SW1 is pressed, T1 and T2 are turned on, triggering the MCU reset, and BOOT0 is pulled high by T2. If SW1 is released at this time, T1 is immediately turned off, and the MCU completes the reset. Due to the effect of C7, T2 will be delayed to turn off. At this time, BOOT0 is still high level, and the MCU will start from the system storage area, and USB DFU download or serial port ISP download can be performed.

The purpose of this is to enter the ISP state by pressing the BOOT button once, without having to press the reset and BOOT buttons separately, simplifying the operation.

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When using the core board to drive motors, high voltage or high interference equipment, be sure to add optocoupler isolation, otherwise it is easy to damage the microcontroller!!!