

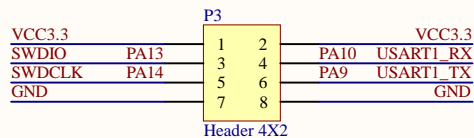
## MCU\_ABC

|            |           |      |
|------------|-----------|------|
| U1A        |           |      |
| WKUP       | PA0       | 23   |
|            | PA1       | 24   |
| GBC_RX     | PA2       | 25   |
| GBC_TX     | PA3       | 26   |
| DCMI_HREF  | PA4       | 29   |
|            | PA5       | 30   |
| DCMI_PCLK  | PA6       | 31   |
| DCMI_RESET | PA7       | 32   |
| DCMI_XCLK  | PA8       | 67   |
|            | USART1_TX | PA9  |
|            | USART1_RX | PA10 |
|            | USB_D-    | PA11 |
|            | USB_D+    | PA12 |
|            | SWDIO     | PA13 |
|            | SWDCLK    | PA14 |
| KEY0       | PA15      | 77   |
|            |           |      |
| T_SCK      | PB0       | 35   |
| T_PEN      | PB1       | 36   |
| BOOT1      | PB2       | 37   |
| T_MOSI     | PB3       | 89   |
|            | PB4       | 90   |
| LCD_BL     | PB5       | 91   |
| DCMI_D5    | PB6       | 92   |
| DCMI_VSYNC | PB7       | 93   |
| DCMI_D6    | PB8       | 95   |
| DCMI_D7    | PB9       | 96   |
| DCMI_SCL   | IIC_SCL   | PB10 |
| DCMI_SDA   | IIC_SDA   | PB11 |
|            | SPI2_CS   | PB12 |
|            | SPI2_SCK  | PB13 |
|            | SPI2_MISO | PB14 |
|            | SPI2_MOSI | PB15 |
|            |           |      |
|            | PC0       | 15   |
|            | PC1       | 16   |
| GBC_KEY    | PC2       | 17   |
| GBC_LED    | PC3       | 18   |
| DCMI_PWDN  | PC4       | 33   |
|            | T_CS      | PC5  |
| DCMI_D0    | PC6       | 63   |
| DCMI_D1    | PC7       | 64   |
| DCMI_D2    | SDIO_D0   | PC8  |
| DCMI_D3    | SDIO_D1   | PC9  |
|            | SDIO_D2   | PC10 |
| DCMI_D4    | SDIO_D3   | PC11 |
|            | SDIO_CLK  | PC12 |
|            |           | PC13 |
|            |           | 7    |

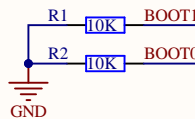
PA0/USART2\_CTS/UART4\_TX/ETH\_MII\_CRD/TIM2\_CH1\_ETR/TIM5\_CH1/TIM8\_ETR/ADC123\_IN0/WKUP  
PA1/USART2\_RTS/UART4\_RX/ETH\_RMII\_REF\_CLK/ETH\_MII\_RX\_CLK/TIM5\_CH2/TIM2\_CH2/ADC123\_IN1  
PA2/USART2\_TX/TIM5\_CH3/TIM9\_CH1/TIM2\_CH3/ETH\_MDIO/ADC123\_IN2  
PA3/USART2\_RX/TIM5\_CH4/TIM9\_CH2/TIM2\_CH4/OTG\_HS\_ULPI\_D0/ETH\_MII\_COL/ADC123\_IN3  
PA4/SPI1\_NSS/SPI3\_NSS/USART2\_CK/DCMI\_HSYNC/OTG\_HS\_SOF/I2S3\_WS/ADC12\_IN4/DAC\_OUT1  
PA5/SPI1\_SCK/OTG\_HS\_ULPI\_CK/TIM2\_CH1\_ETR/TIM8\_CH1N/ADC12\_IN5/DAC\_OUT2  
PA6/SPI1\_MISO/TIM8\_BKIN/TIM13\_CH1/DCMI\_PIXCLK/TIM3\_CH1/TIM1\_BKIN/ADC12\_IN6  
PA7/SPI1\_MOSI/TIM8\_CH1N/TIM14\_CH1/TIM3\_CH2/ETH\_MII\_RX\_DV/TIM1\_CH1N/ETH\_RMII\_CRD/ADC12\_IN7  
PA8/MCO1/USART1\_CK/TIM1\_CH1/I2C3\_SCL/OTG\_FS\_SOF  
PA9/USART1\_TX/TIM1\_CH2/I2C3\_SMBA/DCMI\_D0/OTG\_FS\_VBUS  
PA10/USART1\_RX/TIM1\_CH3/OTG\_FS\_ID/DCMI\_D1  
PA11/USART1\_CTS/CAN1\_RX/TIM1\_CH4/OTG\_FS\_DM  
PA12/USART1\_RTS/CAN1\_TX/TIM1\_ETR/OTG\_FS\_DP  
PA13/JTMS-SWDIO  
PA14/JTCK-SWCLK  
PA15/JTDO/SPI3\_NSS/I2S3\_WS/TIM2\_CH1\_ETR/SPI1\_NSS  
  
PB0/TIM3\_CH3/TIM8\_CH2N/OTG\_HS\_ULPI\_D1/ETH\_MII\_RXD2/TIM1\_CH2N/ADC12\_IN8  
PB1/TIM3\_CH4/TIM8\_CH3N/OTG\_HS\_ULPI\_D2/ETH\_MII\_RXD3/TIM1\_CH3N/ADC12\_IN9  
PB2/BOOT1  
PB3/JTDO/TRACESWO/SPI3\_SCK/I2S3\_CK/TIM2\_CH2/SPI1\_SCK  
PB4/NTRST/SPI3\_MISO/TIM3\_CH1/SPI1\_MISO/I2S3ext\_SD  
PB5/I2C1\_SMBA/CAN2\_RX/OTG\_HS\_ULPI\_D7/ETH\_PPS\_OUT/TIM3\_CH2/SPI1\_MOSI/SPI3\_MOSI/DCMI\_D10/I2S3\_SD  
PB6/I2C1\_SCL/TIM4\_CH1/CAN2\_TX/DCMI\_D5/USART1\_TX  
PB7/I2C1\_SDA/FSMC\_NL/DCMI\_VSYNC/USART1\_RX/TIM4\_CH2  
PB8/TIM4\_CH3/SDIO\_D4/TIM10\_CH1/DCMI\_D6/ETH\_MII\_TXD3/I2C1\_SCL/CAN1\_RX  
PB9/SPI2\_NSS/I2S2\_WS/TIM4\_CH4/TIM11\_CH1/SDIO\_D5/DCMI\_D7/I2C1\_SDA/CAN1\_TX  
PB10/SPI2\_SCK/I2S2\_CK/I2C2\_SCL/USART3\_TX/OTG\_HS\_ULPI\_D3/ETH\_MII\_RX\_ER/TIM2\_CH3  
PB11/I2C2\_SDA/USART3\_RX/OTG\_HS\_ULPI\_D4/ETH\_RMII\_TX\_EN/ETH\_MII\_TX\_EN/TIM2\_CH4  
PB12/SPI2\_NSS/I2S2\_WS/I2C2\_SMBA/USART3\_CK/TIM1\_BKIN/CAN2\_RX/OTG\_HS\_ULPI\_D5/ETH\_RMII\_TXD0/ETH\_MII\_TXD0/OTG\_HS\_ID  
PB13/SPI2\_SCK/I2S2\_CK/USART3\_CTS/TIM1\_CH1N/CAN2\_TX/OTG\_HS\_ULPI\_D6/ETH\_RMII\_TXD1/ETH\_MII\_TXD1/OTG\_HS\_VBUS  
PB14/SPI2\_MISO/TIM1\_CH2N/TIM12\_CH1/OTG\_HS\_DM/USART3\_RTS/TIM8\_CH2N/I2S2ext\_SD  
PB15/SPI2\_MOSI/I2S2\_SD/TIM1\_CH3N/TIM8\_CH3N/TIM12\_CH2/OTG\_HS\_DP/RTC\_REFIN  
  
PC0/OTG\_HS\_ULPI\_STP/ADC123\_IN10  
PC1/ETH\_MDC/ADC123\_IN11  
PC2/SPI2\_MISO/OTG\_HS\_ULPI\_DIR/ETH\_MII\_TXD2/I2S2ext\_SD/ADC123\_IN12  
PC3/SPI2\_MOSI/I2S2\_SD/OTG\_HS\_ULPI\_NXT/ETH\_MII\_TX\_CLK/ADC123\_IN13  
PC4/ETH\_RMII\_RX\_D0/ETH\_MII\_RX\_D0/ADC12\_IN14  
PC5/ETH\_RMII\_RX\_D1/ETH\_MII\_RX\_D1/ADC12\_IN15  
PC6/I2S2\_MCK/TIM8\_CH1/SDIO\_D6/USART6\_TX/DCMI\_D0/TIM3\_CH1  
PC7/I2S3\_MCK/TIM8\_CH2/SDIO\_D7/USART6\_RX/DCMI\_D1/TIM3\_CH2  
PC8/TIM8\_CH3/SDIO\_D0/TIM3\_CH3/USART6\_CK/DCMI\_D2  
PC9/I2S3\_CKIN/MCO2/TIM8\_CH4/SDIO\_D1/I2C3\_SDA/DCMI\_D3/TIM3\_CH4  
PC10/SPI3\_SCK/I2S3\_CK/UART4\_TX/SDIO\_D2/DCMI\_D8/USART3\_TX  
PC11/UART4\_RX/SPI3\_MISO/SDIO\_D3/DCMI\_D4/USART3\_RX/I2S3ext\_SD  
PC12/UART5\_TX/SDIO\_CK/DCMI\_D9/SPI3\_MOSI/I2S3\_SD/USART3\_CK  
PC13/RTC\_OUT/RTC\_TAMP1/RTC\_TS

STM32F103VET6

## SWD &amp; USART1



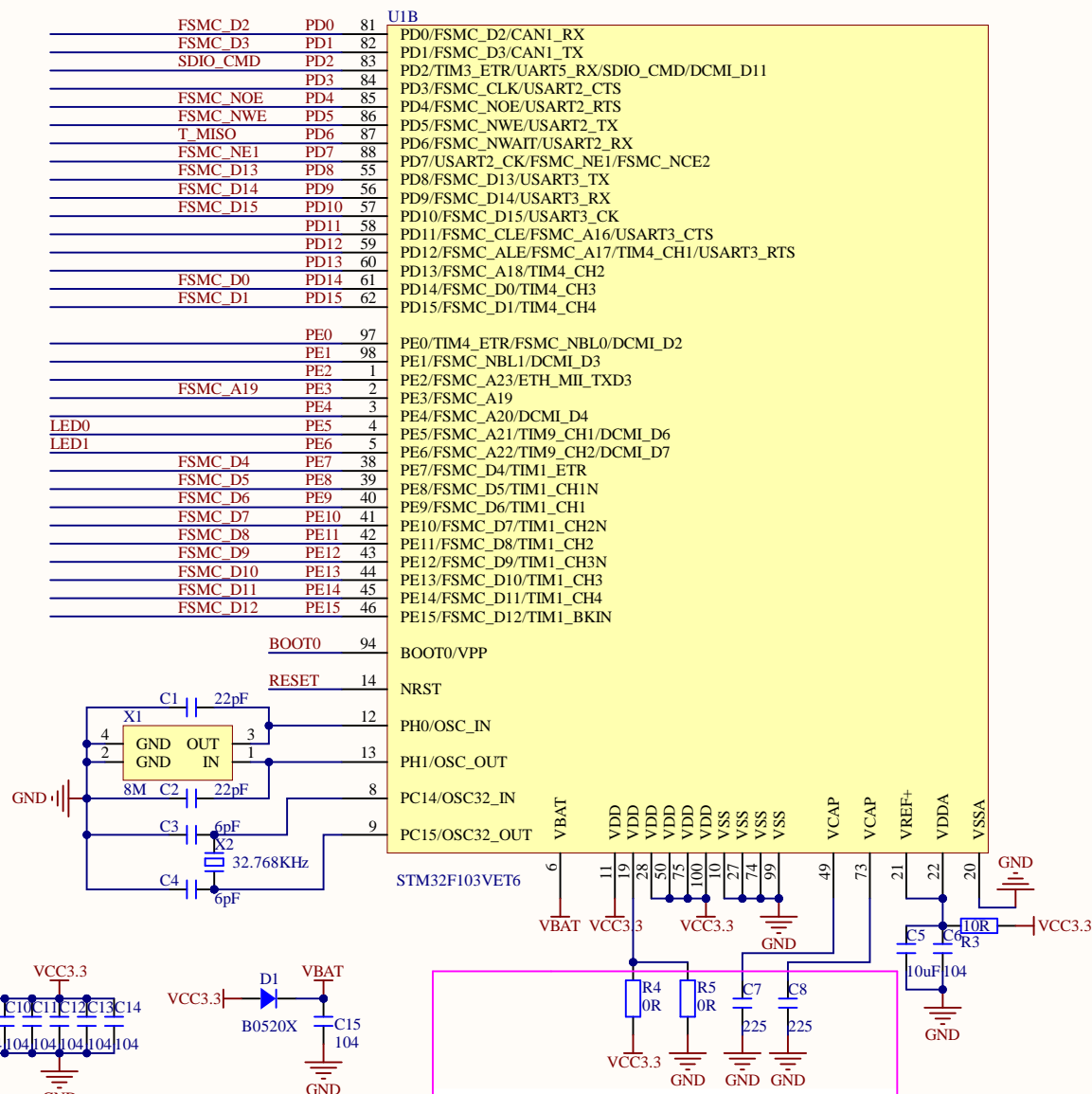
## BOOT



|                   |                           |
|-------------------|---------------------------|
| Title:            |                           |
| M100Z-M3&4.PrjPcb |                           |
| Author:           | Size:                     |
| *                 | A2                        |
| Date:             | File:                     |
| 2024/5/15         | M100Z-M3&4_CPU_ABC.SchDoc |
| Revision:         | Version:                  |
| *                 | *                         |



## MCU\_DE

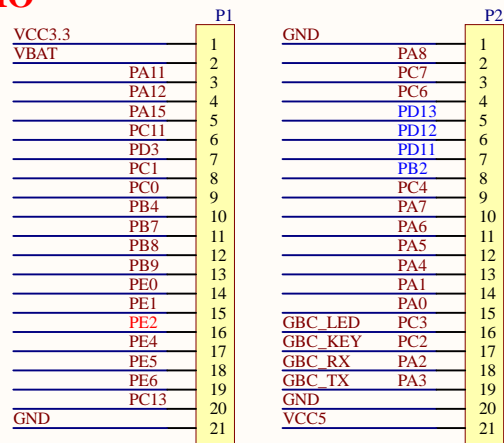


M3 chip: R5, C7 soldered with 0 ohm resistors, R4, C8 not soldered.  
M4 chip: R4 soldered with 0 ohm resistor, C7, C8 soldered with 225 capacitors, R5 not soldered.

|                             |                                   |
|-----------------------------|-----------------------------------|
| Title:<br>M100Z-M3&4.PriPcb |                                   |
| Author:                     | Size:<br>A2                       |
| Date:<br>2024/5/15          | File:<br>M100Z-M3&4_CPU_DE.SchDoc |
| Revision:                   | Version:                          |



## IO



Blue section IO ports:

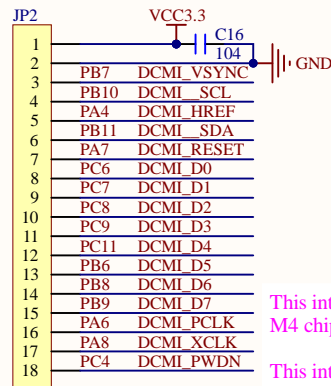
There are differences between M7 and M3/4!  
Full compatibility cannot be achieved!

For compatibility, please use other IO ports.

If compatibility is not considered, then all IO ports can be used normally.

PE2 is used as QSPI data line on M7, so it is generally not used as IO on M7. However, on M3/4, it can be used as a general-purpose IO.

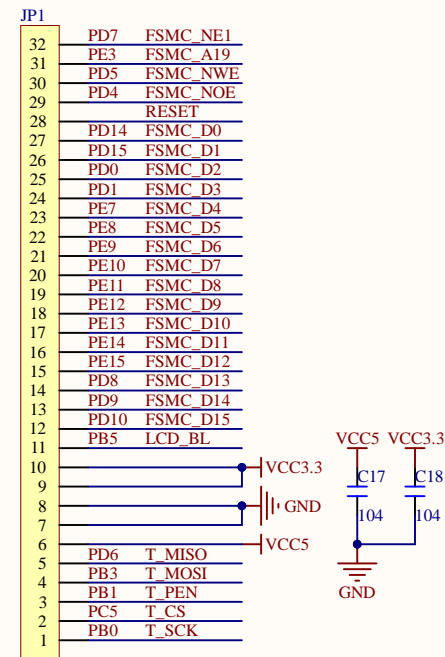
## CAMERA



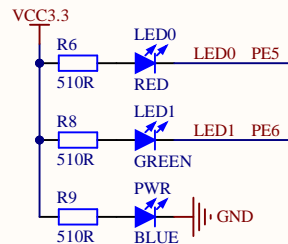
This interface is only valid for the M4 chip.

This interface is not soldered for the M3 series chip.

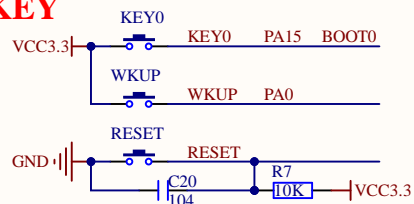
## TFTLCD



## LED

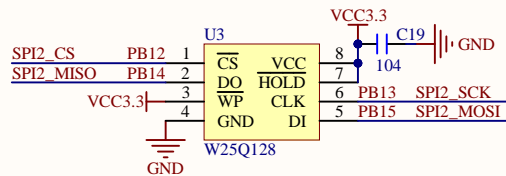


## KEY

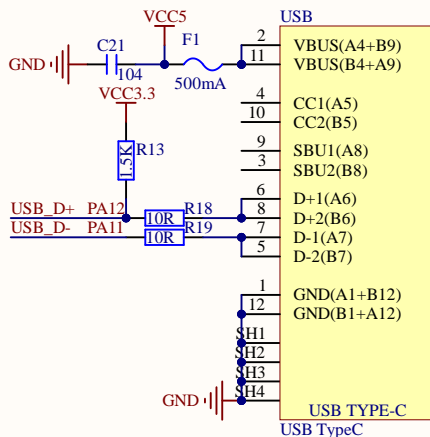


Entering the default BootLoader mode:  
First, press and hold KEY0 (BOOT0 = 1)  
Then press the reset button on the board and release it. At this point, the MCU will enter Bootloader mode.

## FLASH

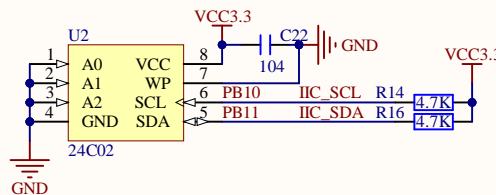


## USB & POWER

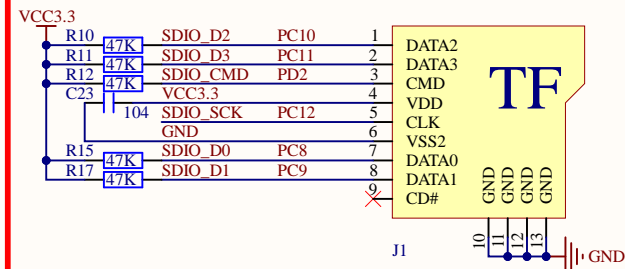


Only applicable when using F103/E103  
R13 (1.5K pull-up resistor)

## EEPROM



## TF CARD



Title:  
M100Z-M3&4.PrjPcb  
Author:  
Date:  
2024/5/15  
Revision:

Size:  
A1  
File:  
M100Z-M3&4\_DEVICE.SchDoc  
Version:



