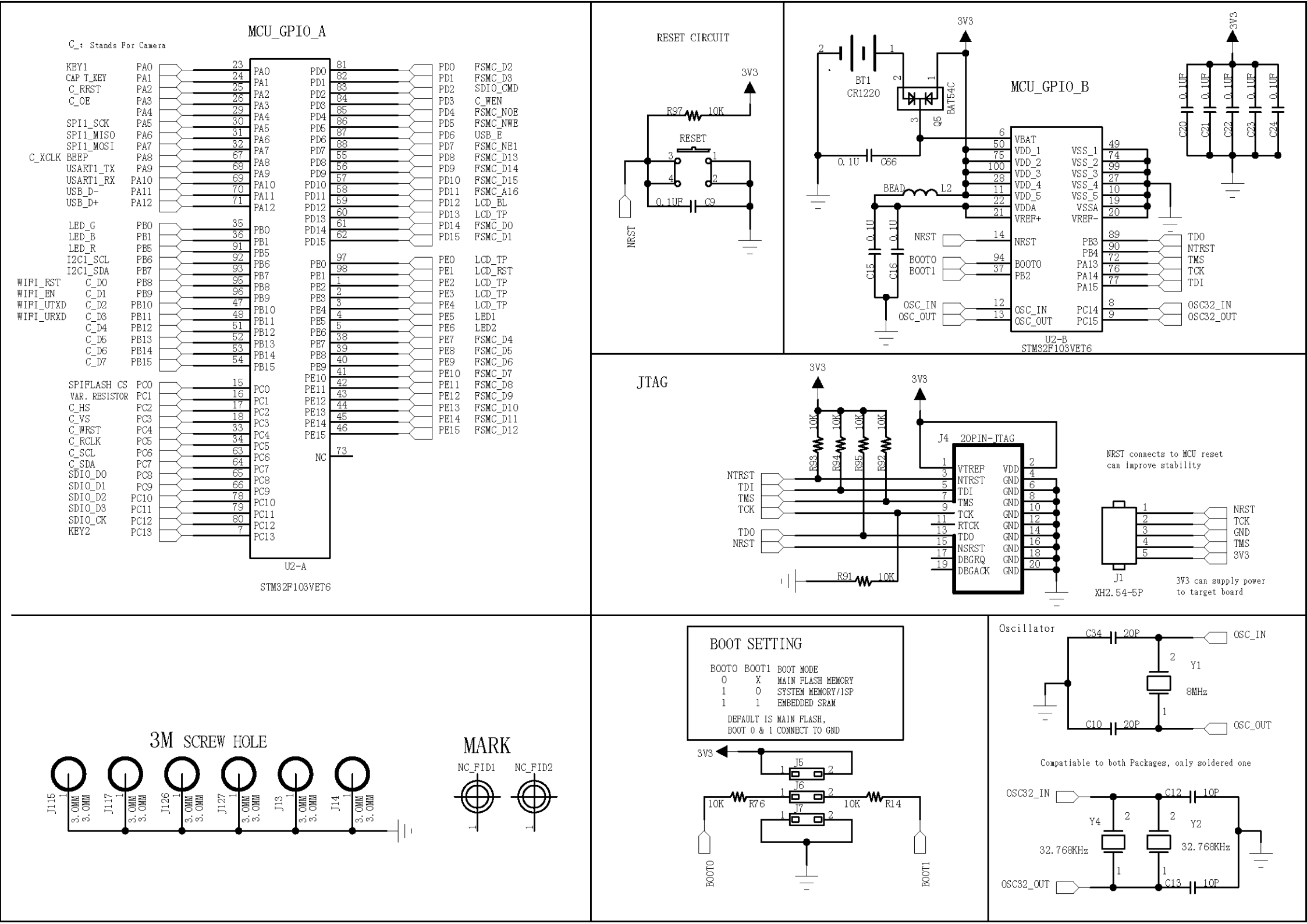
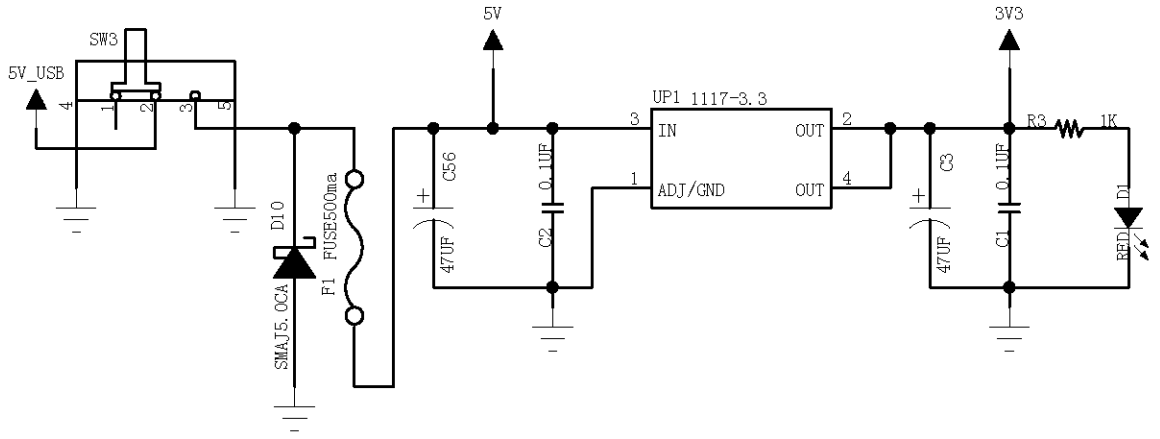
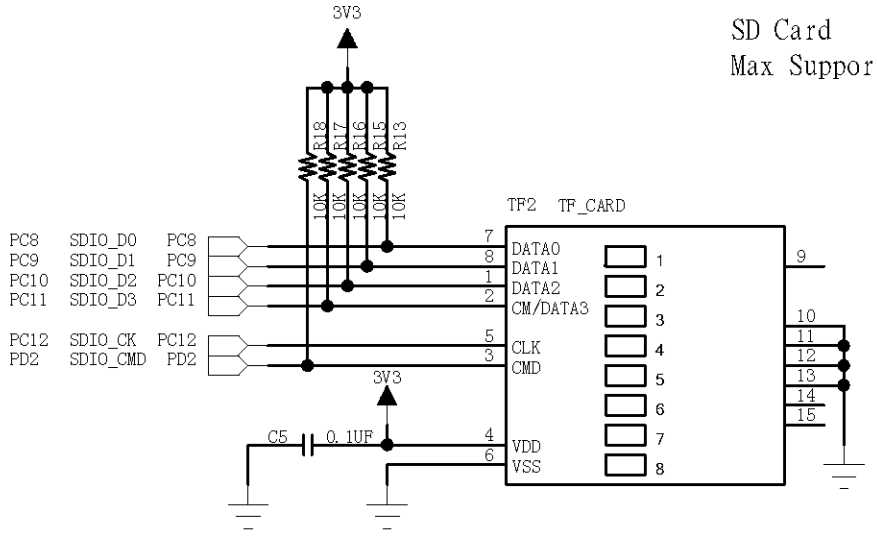

MCU_GPIO_A
C_: Stands For Camera
KEY1 PA0
CAP T_KEY PA1
C_RRST PA2
C_OE PA3
PA4
SPI1_SCK PA5
SPI1_MISO PA6
SPI1_MOSI PA7
C_XCLK BEEP PA8
USART1_TX PA9
USART1_RX PA10
USB_D- PA11
USB_D+ PA12
LED_G PB0
LED_B PB1
LED_R PB5
I2C1_SCL PB6
I2C1_SDA PB7
WIFI_RST C_D0 PB8
WIFI_EN C_D1 PB9
WIFI_UTXD C_D2 PB10
WIFI_URXD C_D3 PB11
C_D4 PB12
C_D5 PB13
C_D6 PB14
C_D7 PB15
SPIFLASH CS PC0
VAR. RESISTOR PC1
C_HS PC2
C_VS PC3
C_WRST PC4
C_RCLK PC5
C_SCL PC6
C_SDA PC7
SDIO_D0 PC8
SDIO_D1 PC9
SDIO_D2 PC10
SDIO_D3 PC11
SDIO_CK PC12
KEY2 PC13
PD0 FSMC_D2
PD1 FSMC_D3
PD2 SDIO_CMD
PD3 C_WEN
PD4 FSMC_NOE
PD5 FSMC_NWE
PD6 USB_E
PD7 FSMC_NE1
PD8 FSMC_D13
PD9 FSMC_D14
PD10 FSMC_D15
PD11 FSMC_A16
PD12 LCD_BL
PD13 LCD_TP
PD14 FSMC_D0
PD15 FSMC_D1
PE0 LCD_TP
PE1 LCD_RST
PE2 LCD_TP
PE3 LCD_TP
PE4 LCD_TP
PE5 LED1
PE6 LED2
PE7 FSMC_D4
PE8 FSMC_D5
PE9 FSMC_D6
PE10 FSMC_D7
PE11 FSMC_D8
PE12 FSMC_D9
PE13 FSMC_D10
PE14 FSMC_D11
PE15 FSMC_D12
NC
U2-A
STM32F103VET6
RESET CIRCUIT
3V3
R97 10K
RESET
0.1UF C9
NRST
MCU_GPIO_B
BT1 CR1220
BAT54C Q5
0.1U C66
BEAD L2
0.1U C15
0.1U C16
NRST
BOOT0
BOOT1
OSC_IN
OSC_OUT
VBAT
VDD_1
VDD_2
VDD_3
VDD_4
VDD_5
VDDA
VREF+
VSS_1
VSS_2
VSS_3
VSS_4
VSS_5
VSSA
VREF-
PB3
PB4
PA13
PA14
PA15
PC14
PC15
TDO
NTRST
TMS
TCK
TDI
OSC32_IN
OSC32_OUT
U2-B
STM32F103VET6
C20 0.1UF
C21 0.1UF
C22 0.1UF
C23 0.1UF
C24 0.1UF
JTAG
R93 10K
R94 10K
R95 10K
R92 10K
J4 20PIN-JTAG
VTREF
NTRST
TDI
TMS
TCK
RTCK
TDO
NSRST
DBGRQ
DBGACK
VDD
GND
R91 10K
NRST connects to MCU reset
can improve stability
J1
XH2.54-5P
3V3 can supply power
to target board
3M SCREW HOLE
J115 3.0MM
J117 3.0MM
J126 3.0MM
J127 3.0MM
J13 3.0MM
J14 3.0MM
MARK
NC_FID1
NC_FID2
BOOT SETTING
BOOT0 BOOT1 BOOT MODE
0 X MAIN FLASH MEMORY
1 0 SYSTEM MEMORY/ISP
1 1 EMBEDDED SRAM
DEFAULT IS MAIN FLASH,
BOOT 0 & 1 CONNECT TO GND
J5
J6
J7
10K R76
10K R14
BOOT0
BOOT1
Oscillator
C34 20P
C10 20P
Y1
8MHz
OSC_IN
OSC_OUT
Compatiable to both Packages, only soldered one
OSC32_IN
OSC32_OUT
Y4
32.768KHz
Y2
32.768KHz
C12 10P
C13 10P

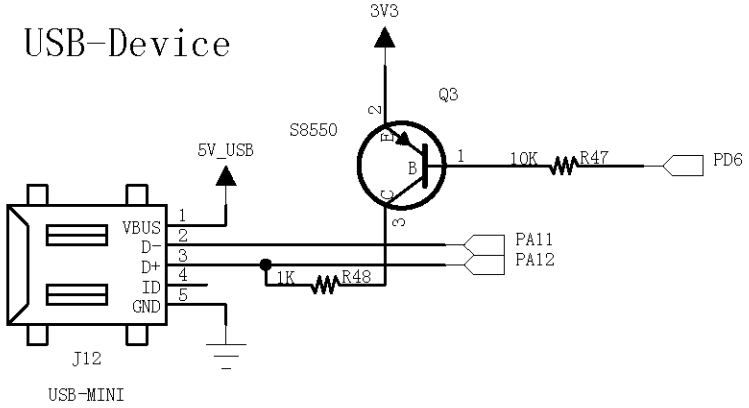
POWER CIRCUIT
USB-5V Supply Power



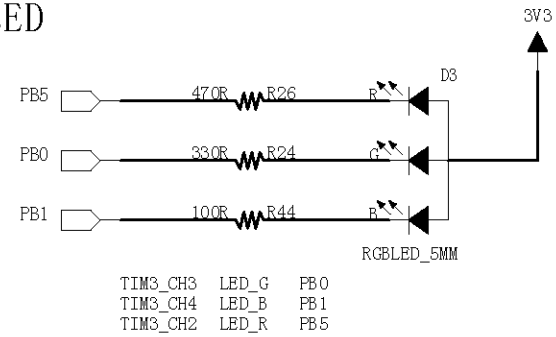
SD Card
Max Support 32GB



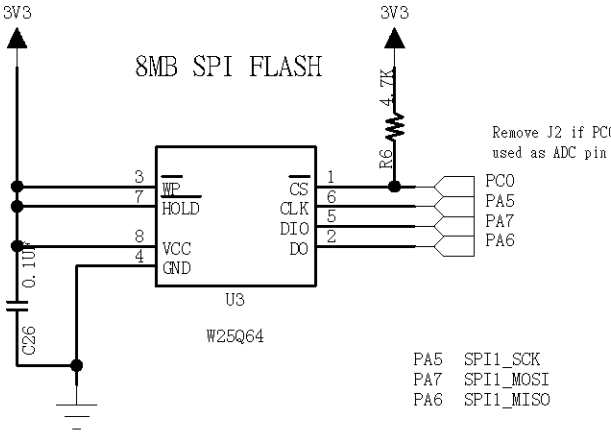
USB-Device

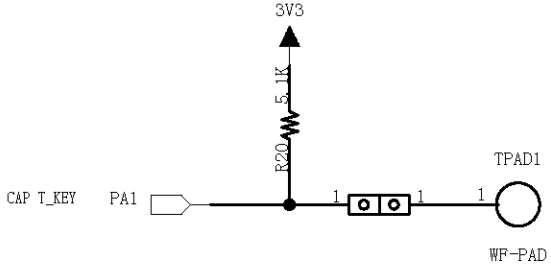


LED



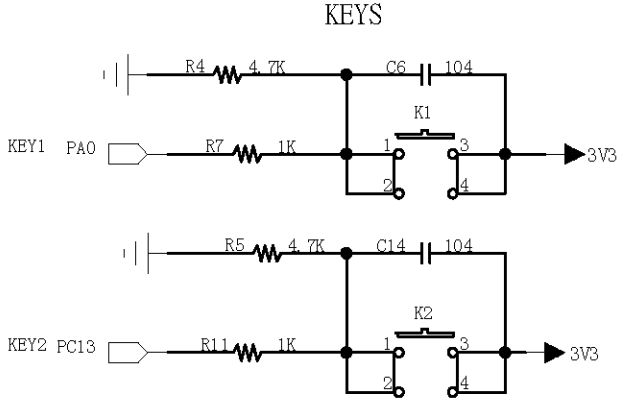
8MB SPI FLASH



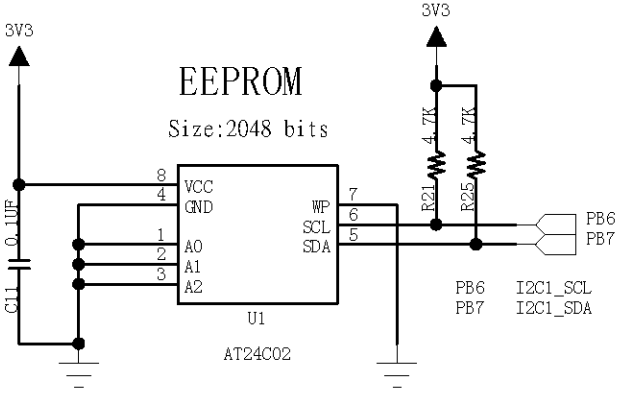


CAP T_KEY
PROGRAMMING USING ADC

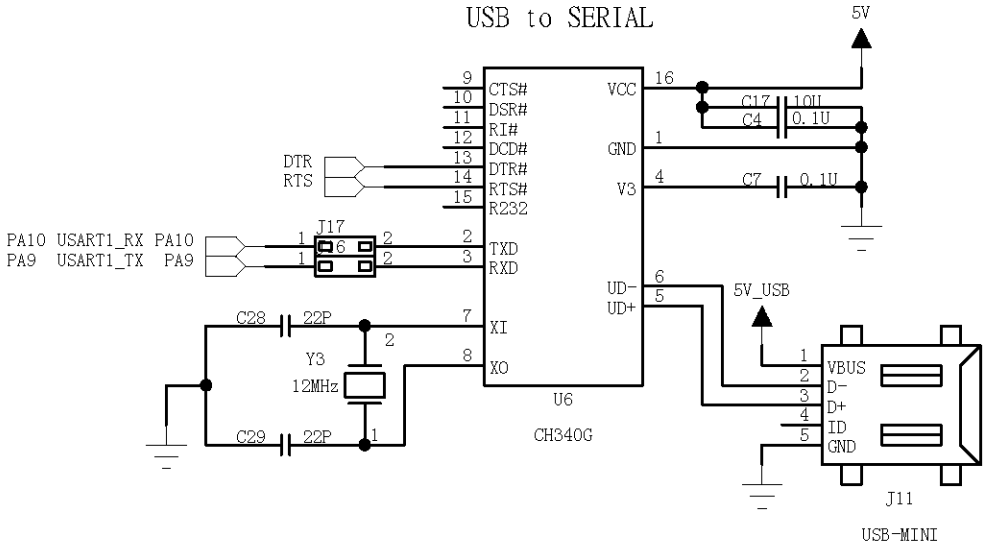
KEYS



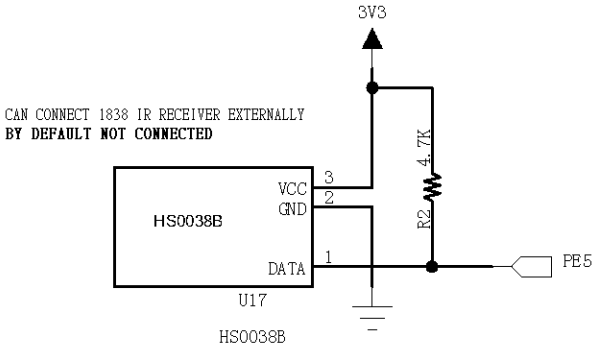
EEPROM
Size:2048 bits



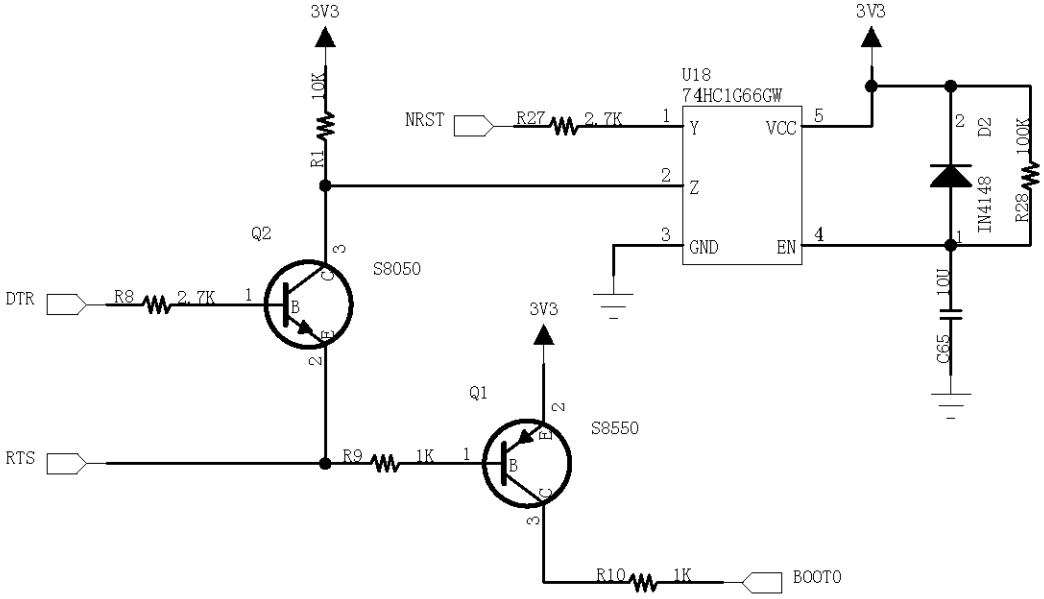
USB to SERIAL



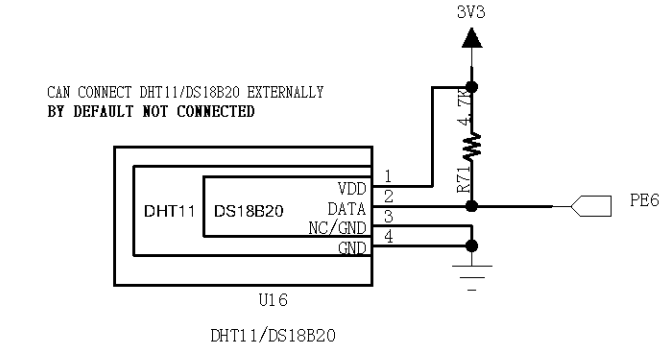
IR CONNECTOR

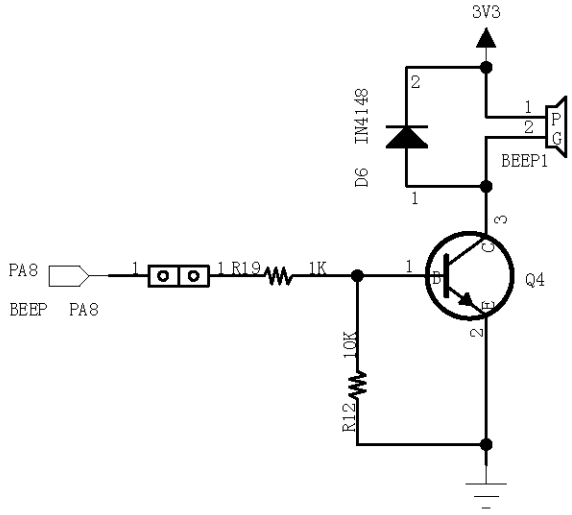


ISP ONE KEY DOWNLOAD CIRCUIT



DHT11/DS18B20 CONNECTOR

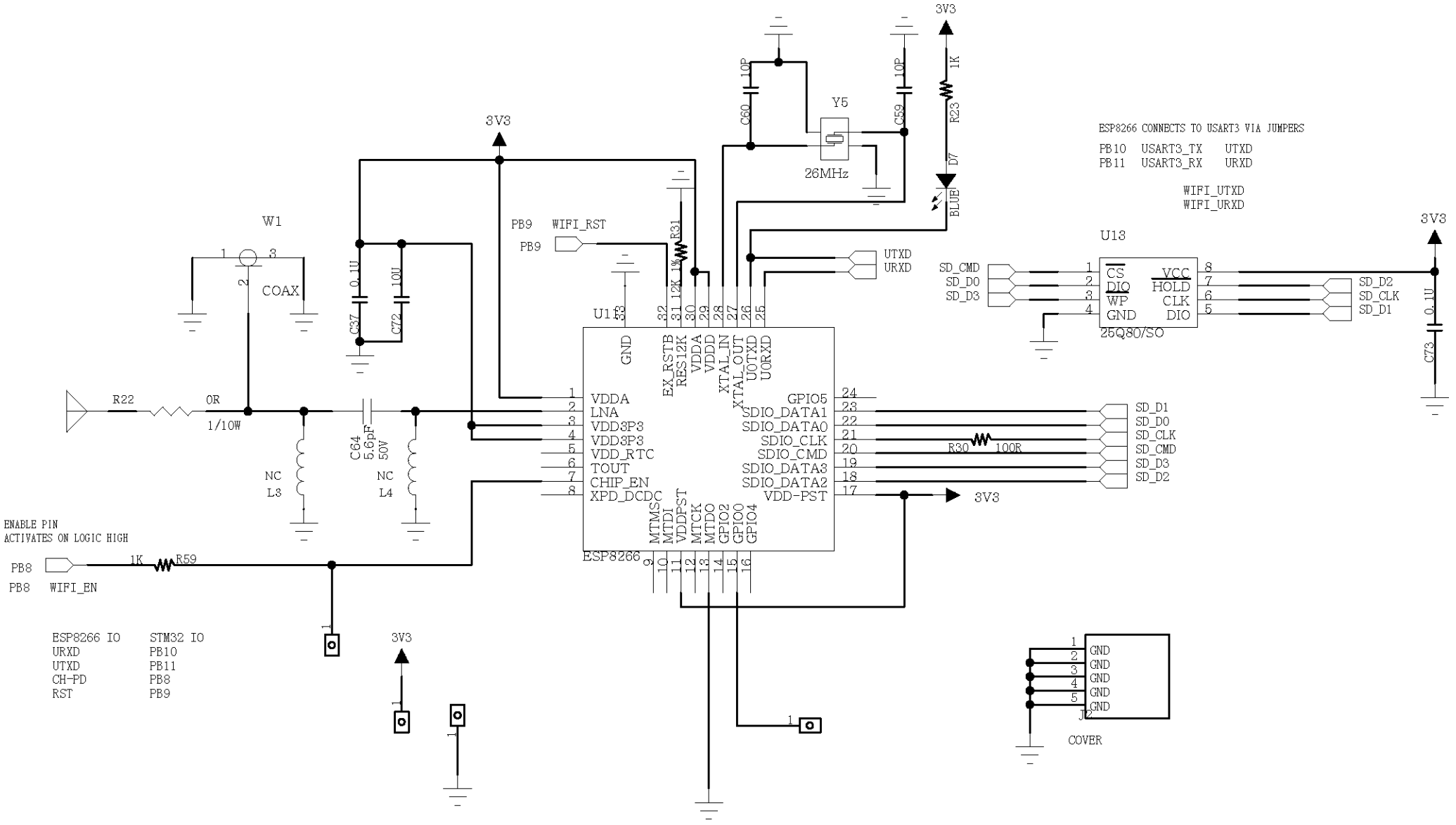




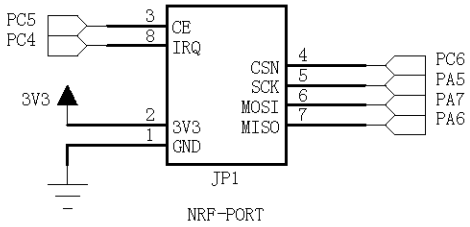
WIFI ESP8266

Note

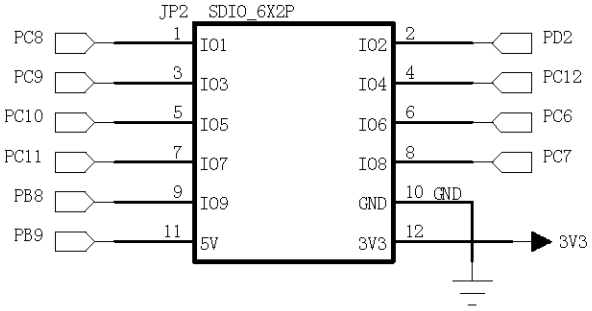
1. ESP8266 is designed for transferring small amount of data (e.g. less than 200 bytes)
2. The board is tested at a distance of 10-meter



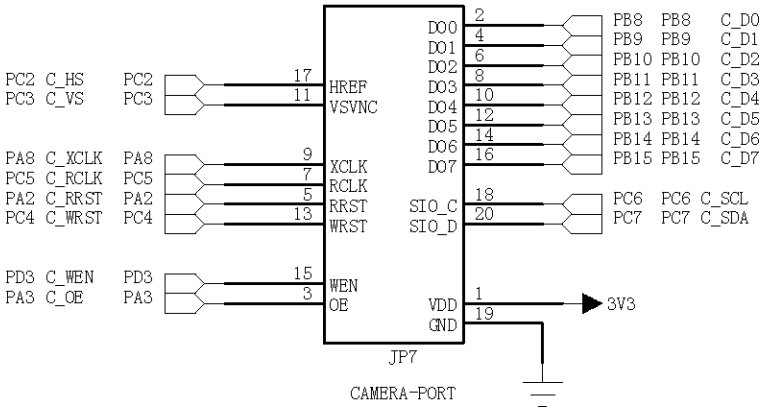
NRF24L01



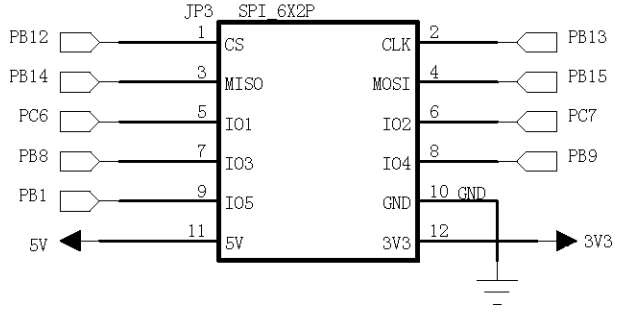
SDIO



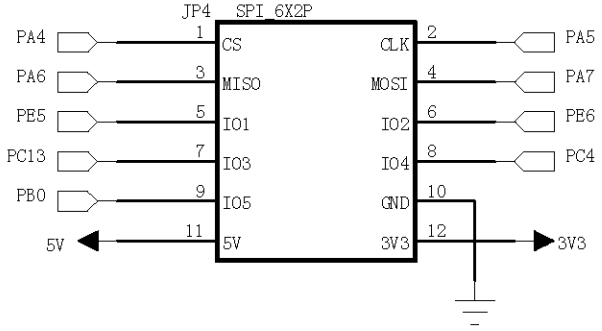
CAMERA



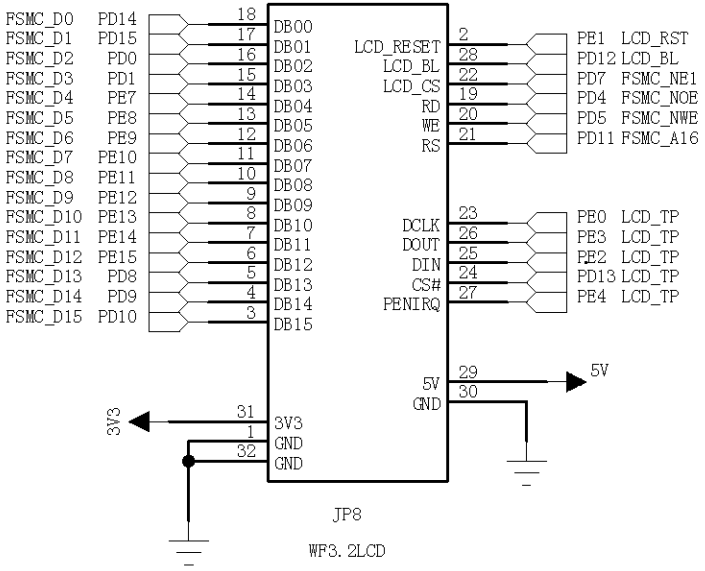
SPI2/I2S



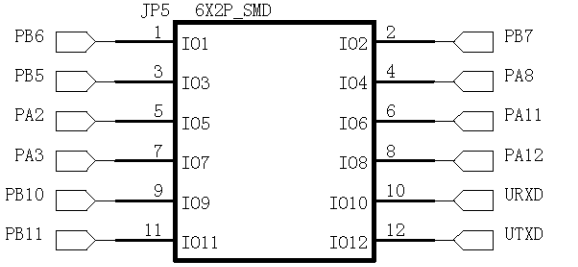
SPI1



LCD CONNECTOR

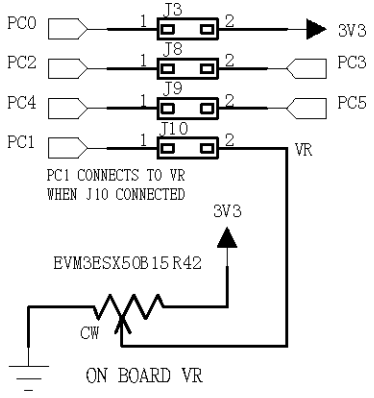


I2C1/2-USART2/3

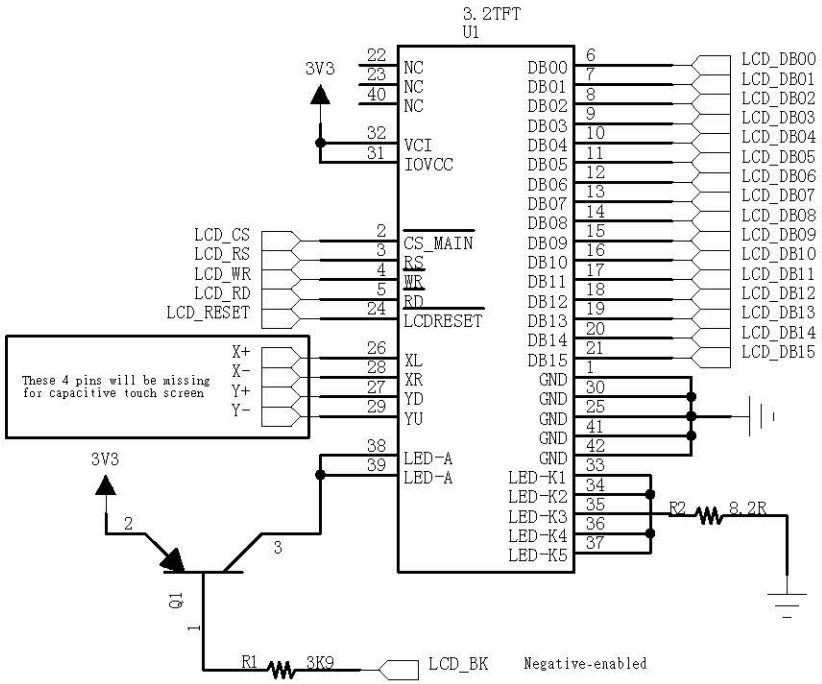


URXD UTXD for ESP8266
PB10: USART3_TXD
PB11: USART3_RXD
BY DEFAULT 9 10 11 12 CONNECTED BY JUMPERS

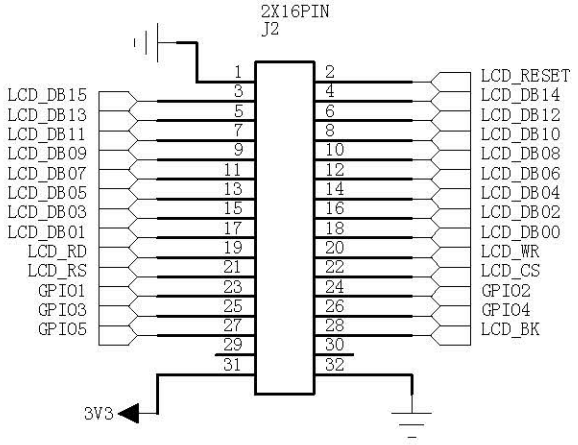
ADC



3.2 inch TFT

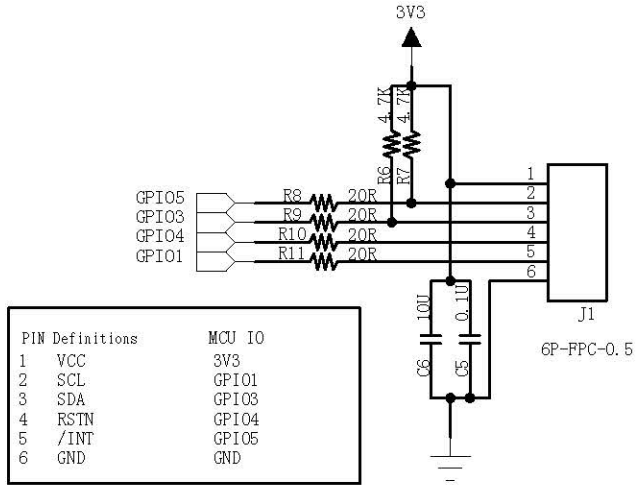


2X16PIN Connector



3.2 inch Capactive Touch Scren

No need to solder this part if resistive touch screen is used



Resistive Touch Screen Controller

No need to solder this part if capactive touch screen is used