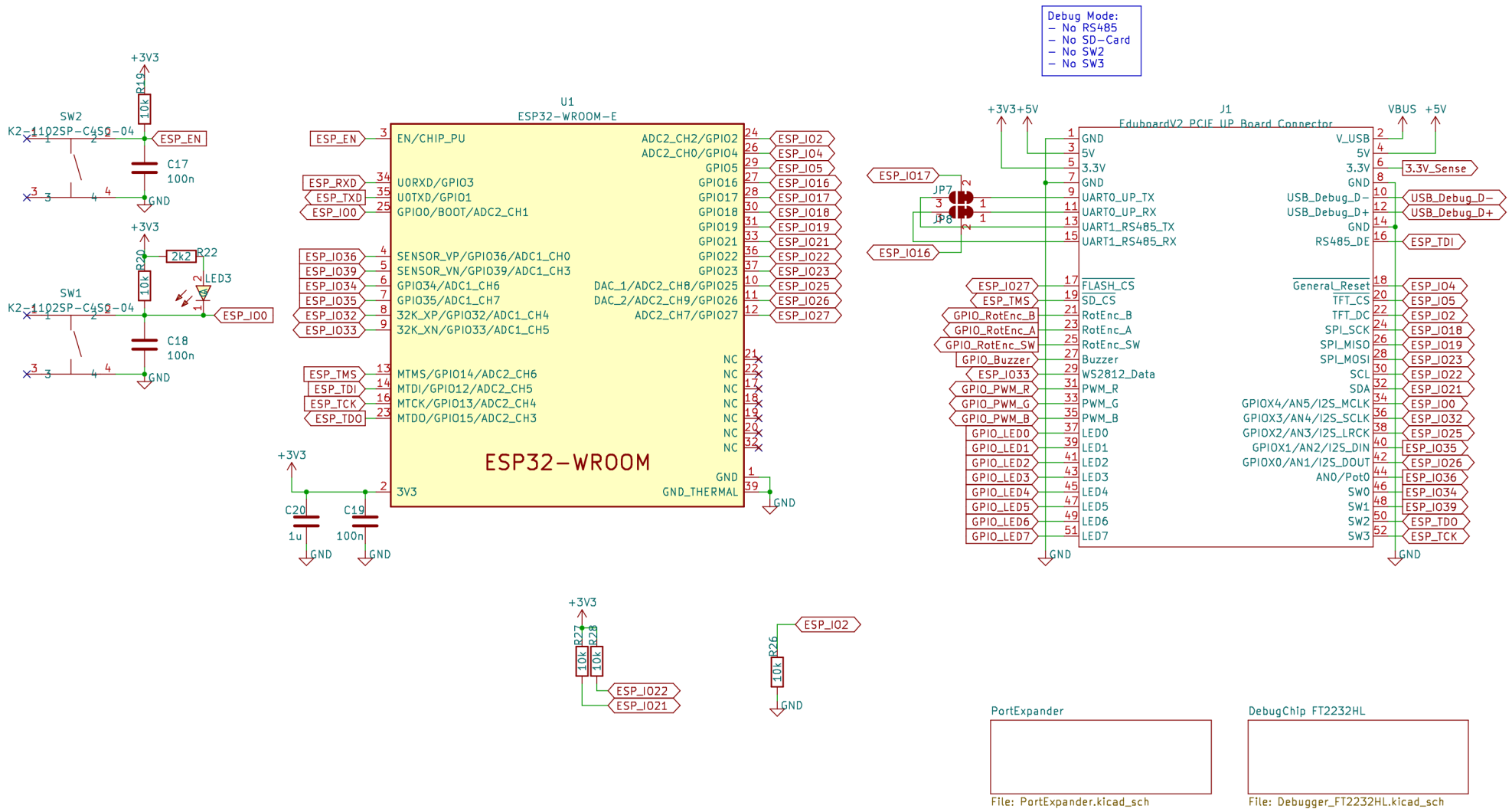
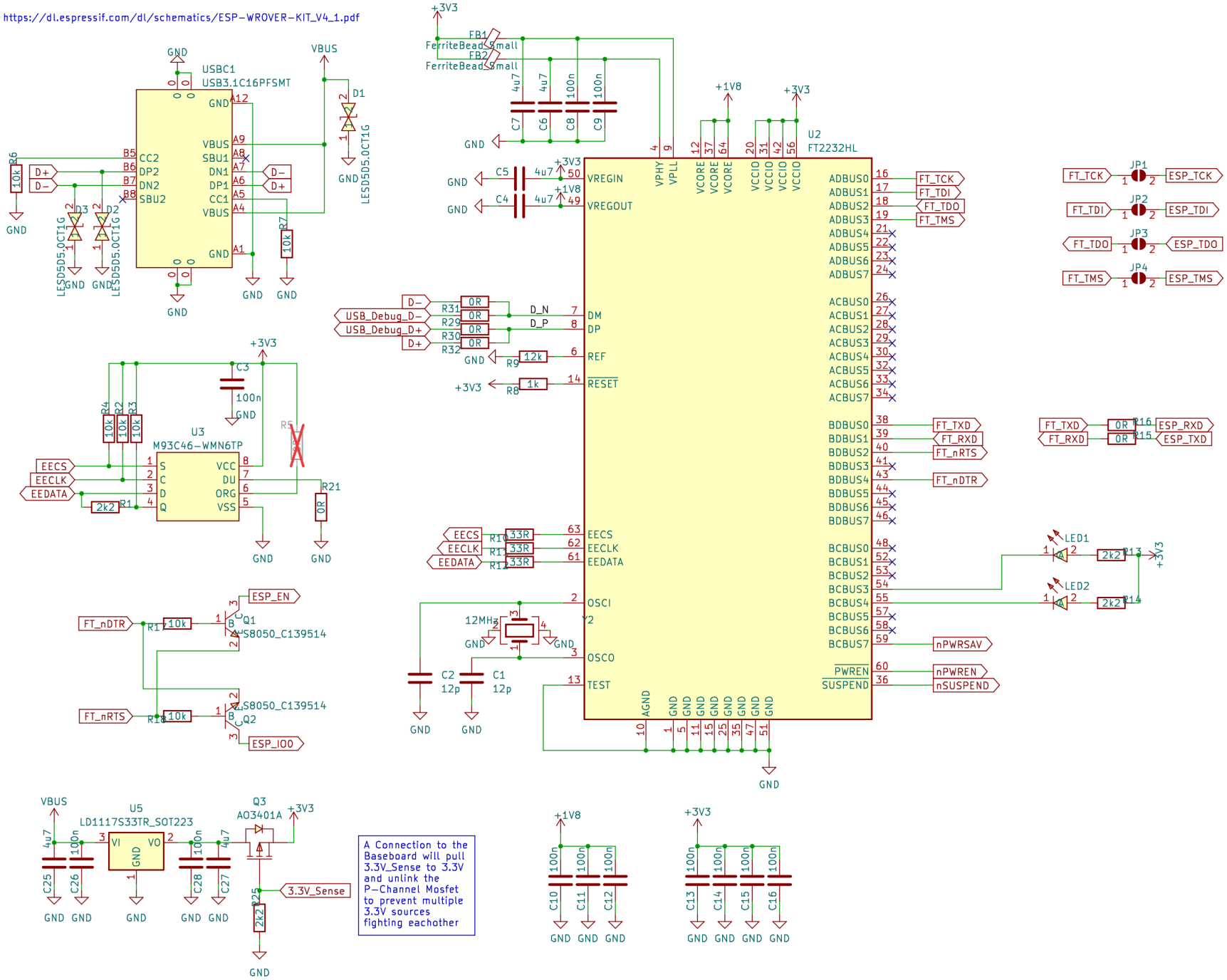
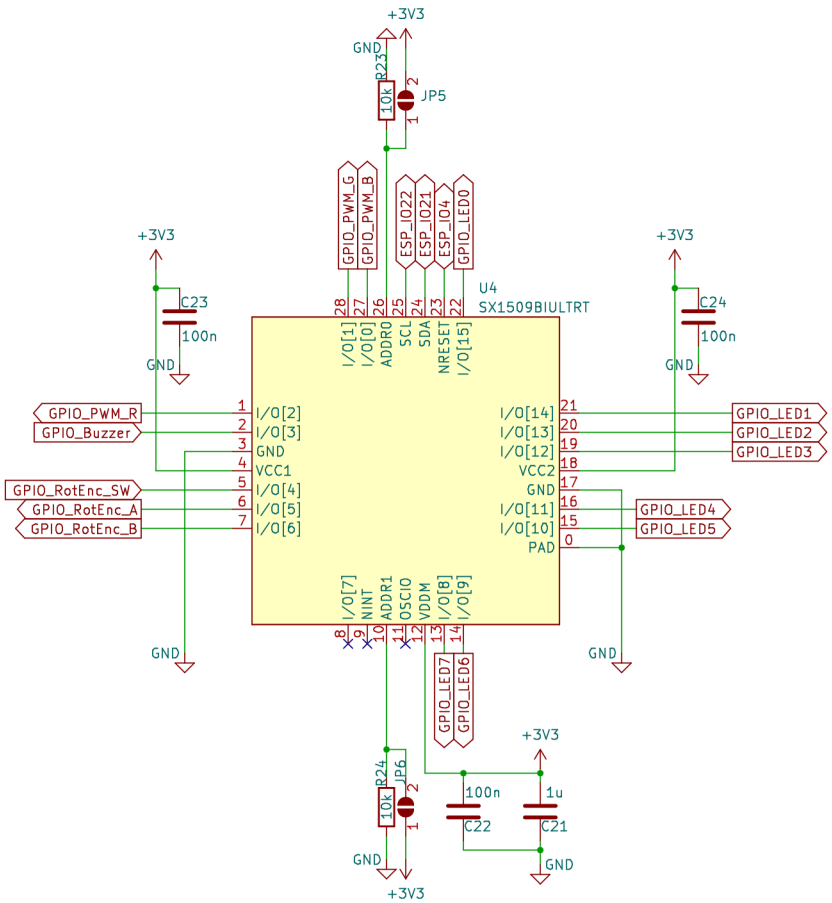

Debug Mode:
– No RS485
– No SD-Card
– No SW2
– No SW3
U1
ESP32-WROOM-E
ESP32-WROOM
J1
EduboardV2 PCIE UP Board Connector
SW2
K2-1102SP-C4S0-04
SW1
K2-1102SP-C4S0-04
R19 10k
R20 10k
R22 2k2
LED3
C17 100n
C18 100n
C20 1u
C19 100n
R27 10k
R28 10k
R26 10k
JP7
JP8
+3V3
+3V3+5V
VBUS +5V
GND
EN/CHIP_PU
U0RXD/GPIO3
U0TXD/GPIO1
GPIO0/BOOT/ADC2_CH1
SENSOR_VP/GPIO36/ADC1_CH0
SENSOR_VN/GPIO39/ADC1_CH3
GPIO34/ADC1_CH6
GPIO35/ADC1_CH7
32K_XP/GPIO32/ADC1_CH4
32K_XN/GPIO33/ADC1_CH5
MTMS/GPIO14/ADC2_CH6
MTDI/GPIO12/ADC2_CH5
MTCK/GPIO13/ADC2_CH4
MTDO/GPIO15/ADC2_CH3
3V3
ADC2_CH2/GPIO2
ADC2_CH0/GPIO4
GPIO5
GPIO16
GPIO17
GPIO18
GPIO19
GPIO21
GPIO22
GPIO23
DAC_1/ADC2_CH8/GPIO25
DAC_2/ADC2_CH9/GPIO26
ADC2_CH7/GPIO27
GND_THERMAL
NC
GND
3.3V_Sense
USB_Debug_D–
USB_Debug_D+
RS485_DE
FLASH_CS
SD_CS
RotEnc_B
RotEnc_A
RotEnc_SW
Buzzer
WS2812_Data
PWM_R
PWM_G
PWM_B
LED0
LED1
LED2
LED3
LED4
LED5
LED6
LED7
V_USB
5V
3.3V
GND
UART0_UP_TX
UART0_UP_RX
UART1_RS485_TX
UART1_RS485_RX
General_Reset
TFT_CS
TFT_DC
SPI_SCK
SPI_MISO
SPI_MOSI
SCL
SDA
GPIOX4/AN5/I2S_MCLK
GPIOX3/AN4/I2S_SCLK
GPIOX2/AN3/I2S_LRCK
GPIOX1/AN2/I2S_DIN
GPIOX0/AN1/I2S_DOUT
AN0/Pot0
SW0
SW1
SW2
SW3
ESP_EN
ESP_RXD
ESP_TXD
ESP_IO0
ESP_IO36
ESP_IO39
ESP_IO34
ESP_IO35
ESP_IO32
ESP_IO33
ESP_TMS
ESP_TDI
ESP_TCK
ESP_TDO
ESP_IO2
ESP_IO4
ESP_IO5
ESP_IO16
ESP_IO17
ESP_IO18
ESP_IO19
ESP_IO21
ESP_IO22
ESP_IO23
ESP_IO25
ESP_IO26
ESP_IO27
GPIO_RotEnc_B
GPIO_RotEnc_A
GPIO_RotEnc_SW
GPIO_Buzzer
GPIO_PWM_R
GPIO_PWM_G
GPIO_PWM_B
GPIO_LED0
GPIO_LED1
GPIO_LED2
GPIO_LED3
GPIO_LED4
GPIO_LED5
GPIO_LED6
GPIO_LED7
USB_Debug_D–
USB_Debug_D+
ESP_IO35
ESP_IO36
ESP_IO34
ESP_IO39
ESP_TDO
ESP_TCK
PortExpander
File: PortExpander.kicad_sch
DebugChip FT2232HL
File: Debugger_FT2232HL.kicad_sch

https://dl.espressif.com/dl/schematics/ESP-WROVER-KIT_V4_1.pdf




+3V3
GND
R23
10k
JP5
GPIO_PWM_G
GPIO_PWM_B
ESP_IO22
ESP_IO21
ESP_IO4
GPIO_LED0
U4
SX1509BIULTRT
I/O[1]
I/O[0]
ADDR0
SCL
SDA
NRESET
I/O[15]
C23
100n
C24
100n
GPIO_PWM_R
GPIO_Buzzer
GPIO_RotEnc_SW
GPIO_RotEnc_A
GPIO_RotEnc_B
I/O[2]
I/O[3]
GND
VCC1
I/O[4]
I/O[5]
I/O[6]
I/O[14]
I/O[13]
I/O[12]
VCC2
I/O[11]
I/O[10]
PAD
GPIO_LED1
GPIO_LED2
GPIO_LED3
GPIO_LED4
GPIO_LED5
I/O[7]
NINT
ADDR1
OSCIO
VDDM
I/O[8]
I/O[9]
GPIO_LED7
GPIO_LED6
R24
10k
JP6
100n
C22
1u
C21