

USB - UART

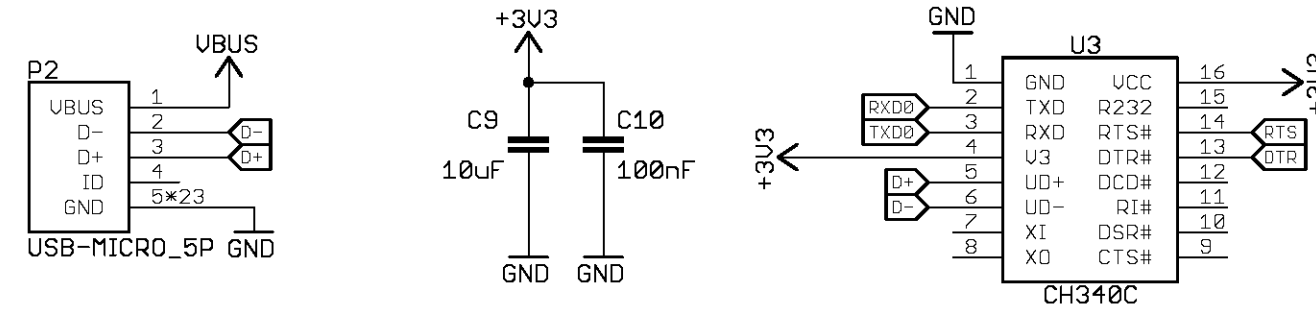
The diagram illustrates the USB-to-UART interface circuit. It features a USB-Micro5P connector (P2) connected to a CH340C IC (U3). The IC is powered by a 3.3V supply and includes a 10uF capacitor (C9) and a 100nF capacitor (C10) for decoupling. The IC's TXD and RXD pins are connected to the UART pins of the microcontroller.

Component Labels:

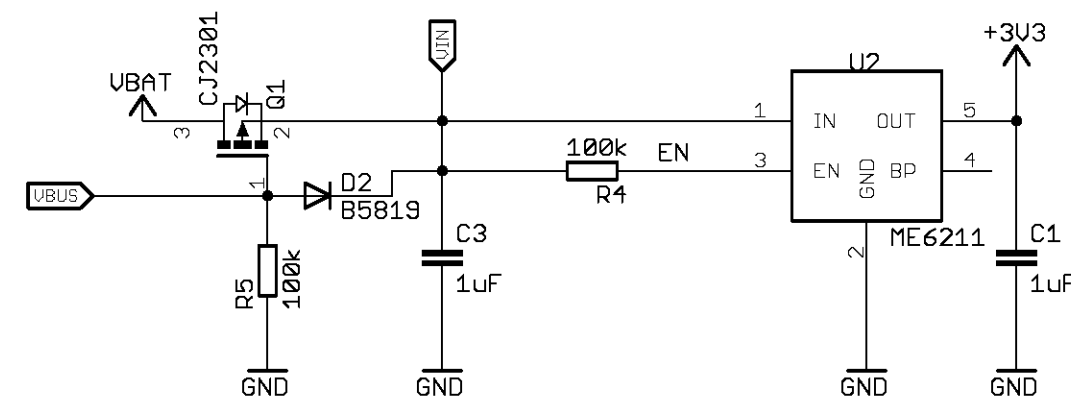
- P2: USB-Micro5P connector
- U3: CH340C IC
- C9: 10uF capacitor
- C10: 100nF capacitor

Pin Connections:

- USB-Micro5P (P2) pins: 1 (VBUS), 2 (D-), 3 (D+), 4 (ID), 5*23 (GND)
- CH340C (U3) pins: 1 (GND), 2 (TXD), 3 (RXD), 4 (V3), 5 (D+), 6 (D-), 7 (X1), 8 (X0), 9 (CTS#), 10 (DSR#), 11 (RI#), 12 (DTR#), 13 (RTS#), 14 (R232), 15 (UCC), 16 (+3V3)

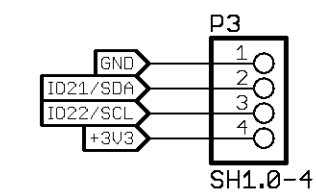


Power



I2C Port

The diagram illustrates the I2C port connections. On the left, four pins are labeled: GND, I021/SDA, I022/SCL, and +3V3. These pins are connected to a vertical strip of four pins labeled P3, which are numbered 1, 2, 3, and 4 from top to bottom. The connections are as follows: GND to P3.1, I021/SDA to P3.2, I022/SCL to P3.3, and +3V3 to P3.4. Below the P3 pins, the text 'SH1.0-4' is written.



Auto Flash

U4
UMH3N

RESET

RTS

DTR

I/O

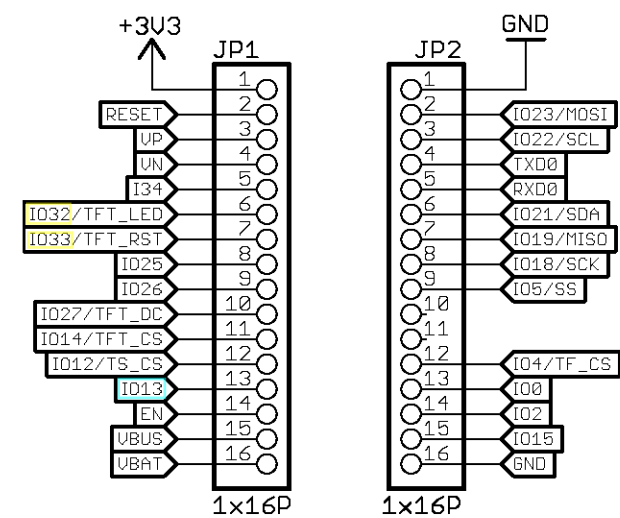
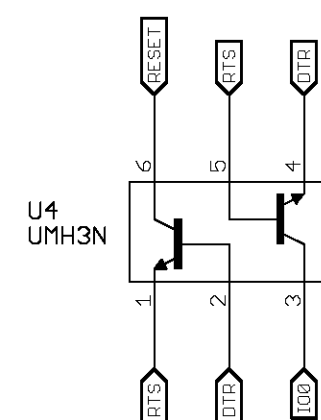
5

4

3

2

1

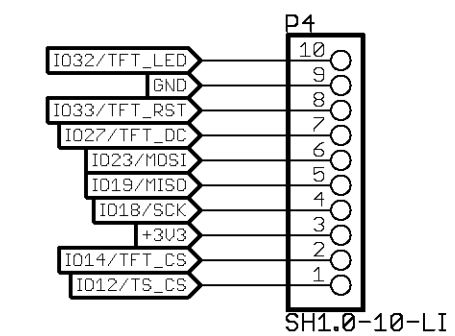


TFT LCD Port

Diagram illustrating the pinout for the SH1106-10-LI TFT LCD module. The pins are labeled as follows:

Pin	Signal
1	IO12/TS_CS
2	IO14/TFT_CS
3	+3V3
4	IO18/SDA
5	IO19/MISO
6	IO23/MOSI
7	IO27/TFT_DC
8	IO33/TFT_RST
9	GND
10	IO32/TFT_LED

SH1106-10-LI



Micro SD

P5

microSD CARD

NC /CS 1

D1 2

UDD 3

CLK 4

VSS 5

DO 6

RSV 7

8

CD<1> 6

CD<2> S1

10k R2

10k R3

10k R8

10k R10

+3V3

104/TF_CS

1023/HOST

1018/SCK

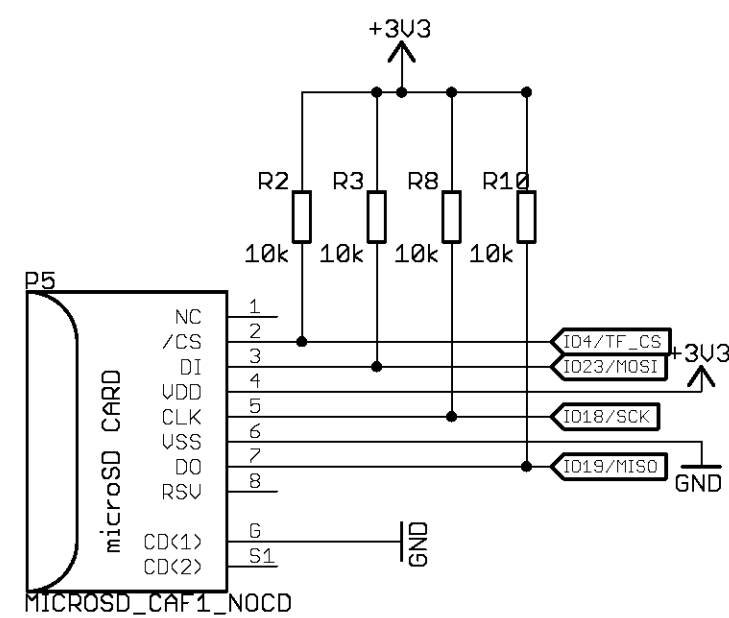
1019/MISO

+3V3

GND

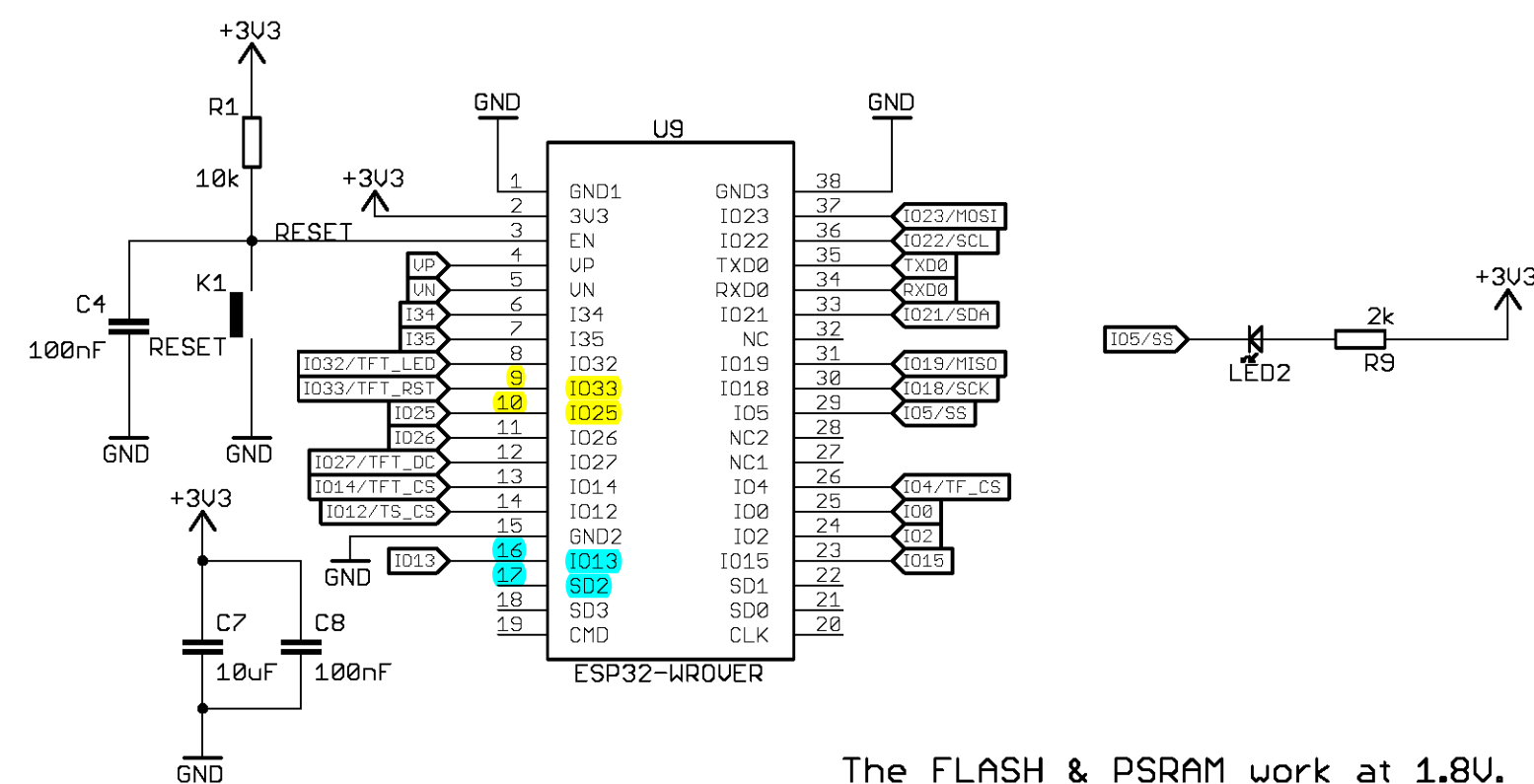
GND

MICROSD_CAF1_NOCD



Core

The FLASH & PSRAM work at 1.8V.



The FLASH & PSRAM work at 1.8V.

Battery

The diagram illustrates a battery management circuit for a D32_pro board. It features a TP4054 DC-DC converter (U5) which manages the charging and discharging of a battery (BAT). The battery is connected to the BAT pin of U5. The U5 has pins for CHRG, BAT, PROG, and GND. A 2k resistor (R6) is connected between VBUS and the CHRG pin. A 10uF capacitor (C6) is connected between VBUS and GND. The PROG pin is connected to GND through a 2k resistor (R7). The BAT pin is connected to the positive terminal of the battery. The battery is also connected to a PH-2-WD connector (P1) through a 100k resistor (R12). The PH-2-WD connector is connected to a 135V source through a 100k resistor (R17). A 10uF capacitor (C2) is connected between the battery and GND. A 100k resistor (R12) is connected between the battery and the PH-2-WD connector. A 100k resistor (R17) is connected between the PH-2-WD connector and GND. A 100k resistor (R12) is connected between the battery and the PH-2-WD connector. A 100k resistor (R17) is connected between the PH-2-WD connector and GND. A 100k resistor (R12) is connected between the battery and the PH-2-WD connector. A 100k resistor (R17) is connected between the PH-2-WD connector and GND.

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