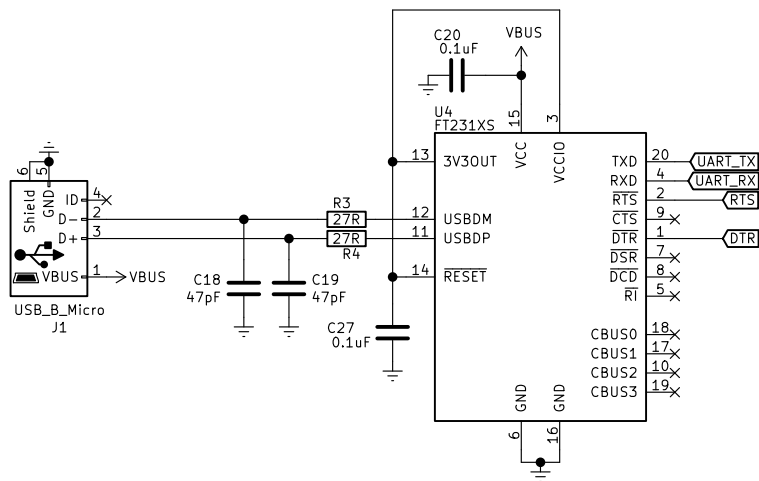
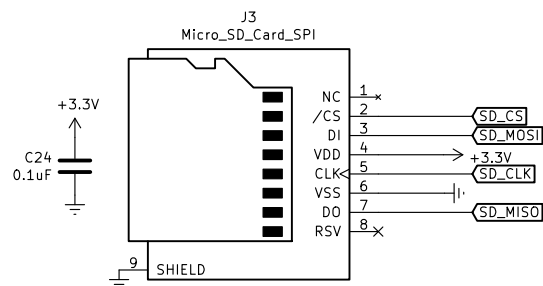


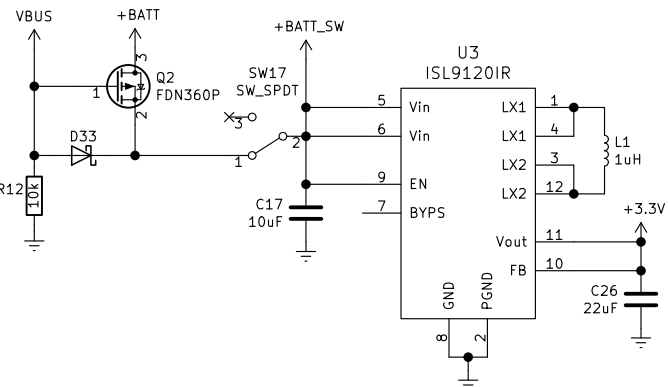
## USB UART



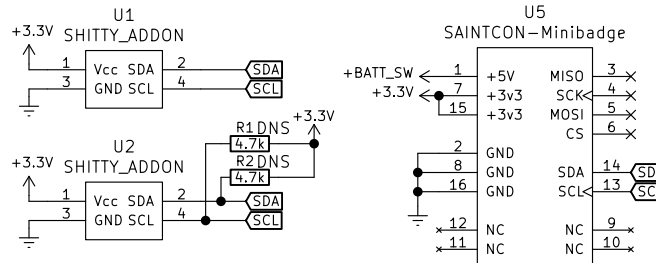
## SD Card



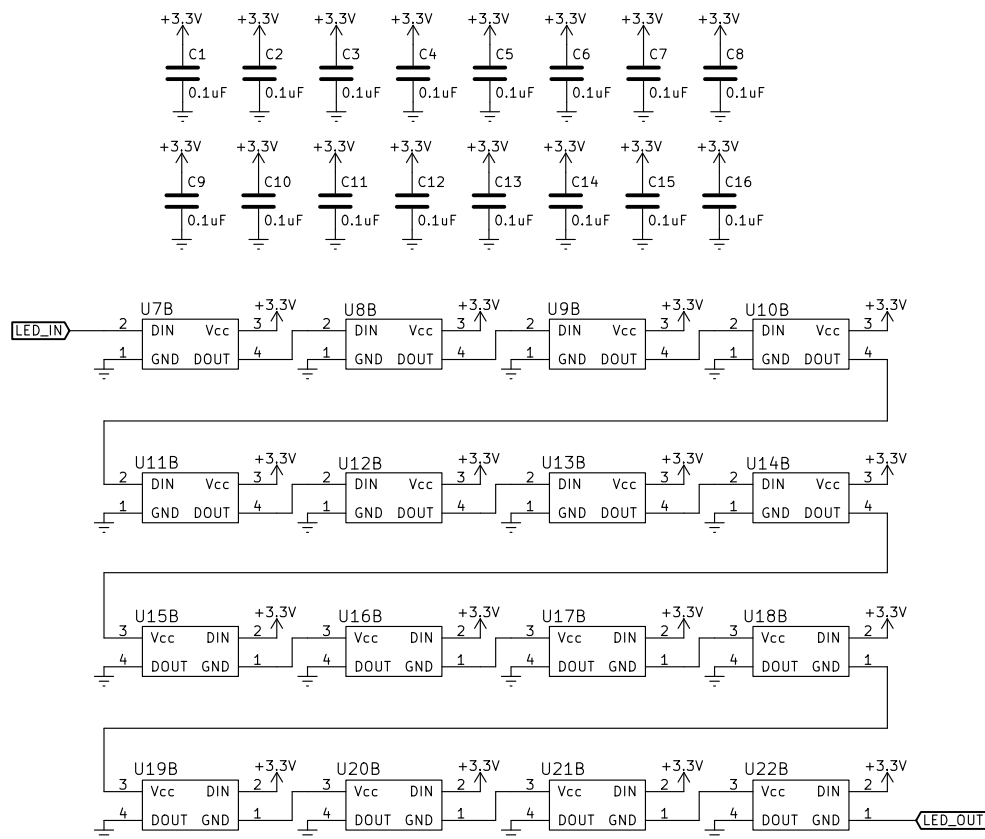
## Power regulation



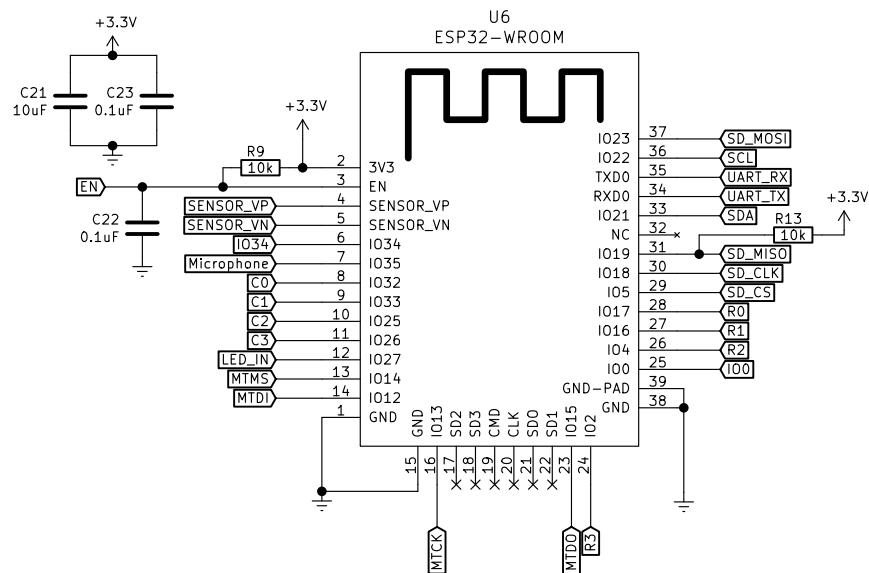
## Addons



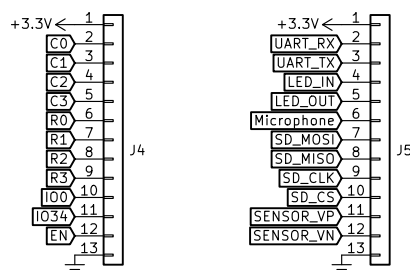
## RGB LEDs



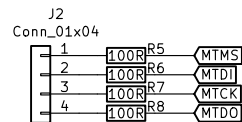
## ESP32 Module



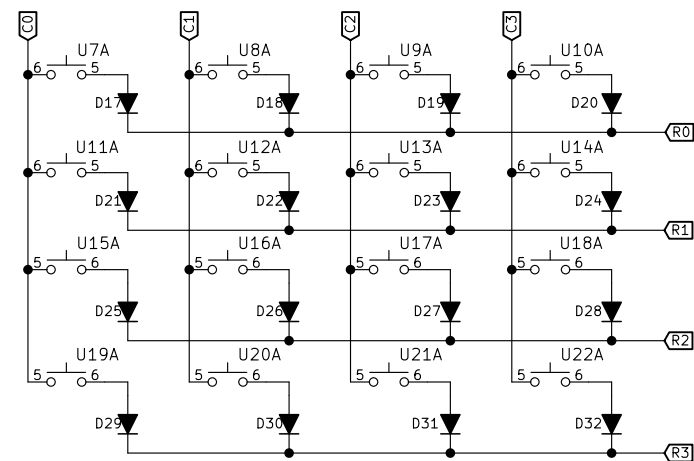
## Expansion



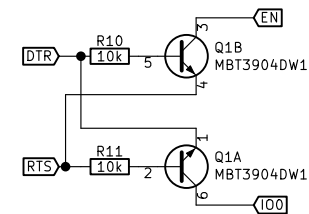
## JTAG



## Keygrid



## Bootstrapping



The ESP32 will enter the serial bootloader when GPIO0 is held low on reset. Otherwise it will run the program in flash.

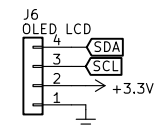
<https://github.com/espressif/esptool/wiki/ESP32-Boot-Mode-Selection>

DTR high, toggle RTS H->L to reset to run mode  
RTS high, toggle DTR L->H to reset to bootloader

Bootstrap pins:

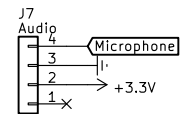
GPIO0 - H = SPI boot, L = GPIO2 L = Download boot  
GPIO2 - See above  
GPIO5 - See below  
MTDI (GPIO12) - H = 1.8V VDD\_SDIO, L = 3.3V (want L, default)  
MTDO (GPIO15) - Couple with IO5 to determine timing of SDIO slave

OLED LCD



Connector is on the left  
Pin 1 is at the bottom

## Microphone



Microphone module

## Batteries



Sheet: /

File: KeyGridBadge.sch

**Title:** DCZIA Defcon 26 Badge

Size: A3

Size: AS	Date:
KiCad E.D.A.	kiCad (5.0.0-rc2-dev-321-g78161b592)

Rev:  
Id: 1/1