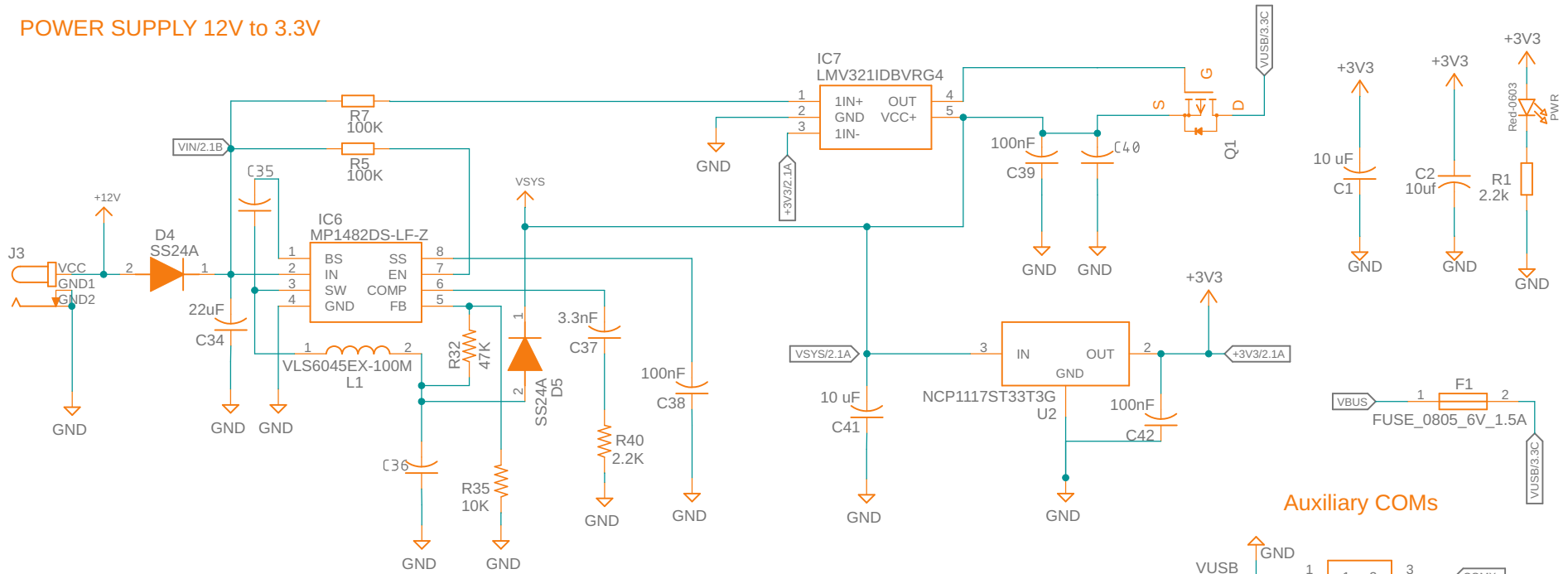
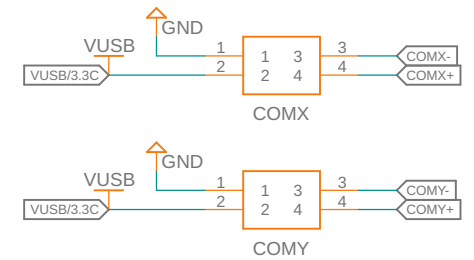


POWER SUPPLY 12V to 3.3V



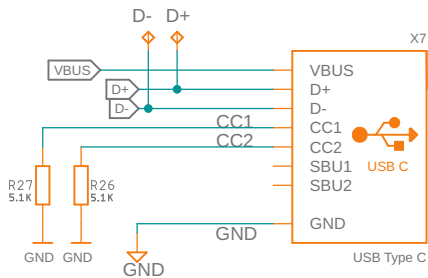
Auxiliary COMs



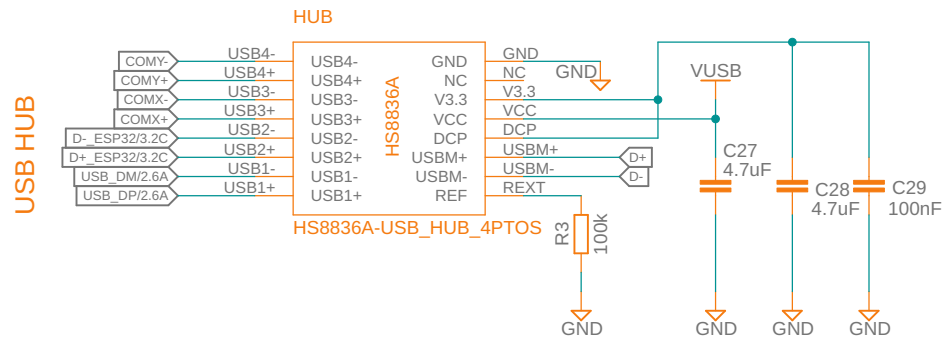
MOUNTING HOLES

- H1 MOUNT-PAD-ROUND3.0
- H2 MOUNT-PAD-ROUND3.0
- H3 MOUNT-PAD-ROUND3.0
- H4 MOUNT-PAD-ROUND3.0

USB TYPE C CONNECTOR



Primary USB Manager



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PROPRIETARY

Description:
Development board based on RP2040 microcontroller
Dual cortex M0+ 133 Mhz with WIFI communication
via espressif ESP32 microcontroller

Title: UNIT DualMCU R-ONE

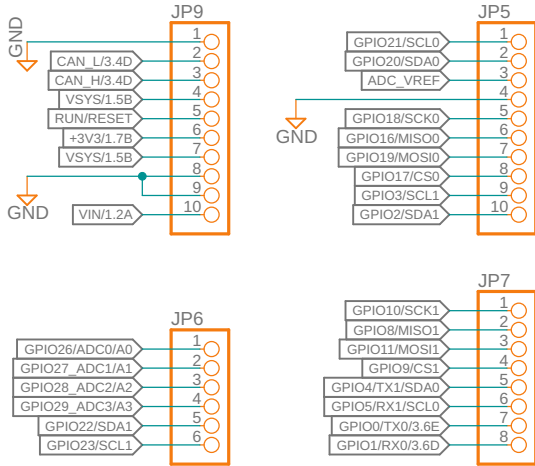
SKU: UE0022 REV: V2.0.0

Last date time: 14/05/2024 02:08 p. m. SHEET: 1 of 4
File: DualMCU_R-ONE_Schematic Sheet description:

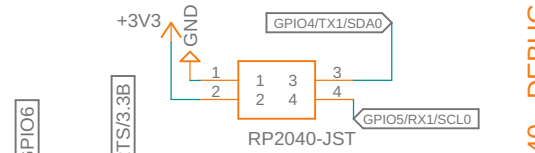
UNIT
ELECTRONICS

Author: ADRIAN RABADAN ORTIZ

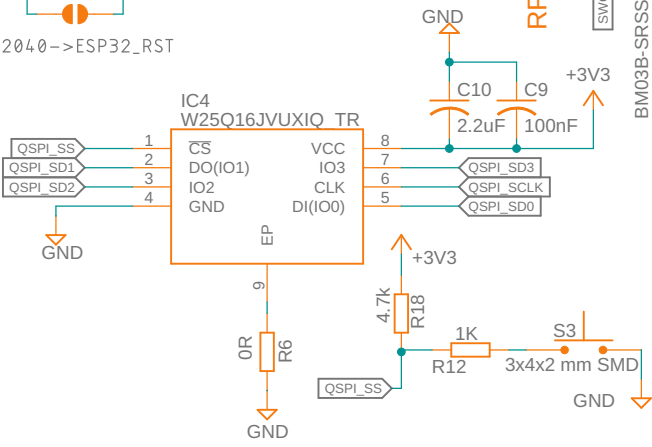
RP2040 - PIN HEADER



I2C - JST CONNECTORS (1 mm pitch)



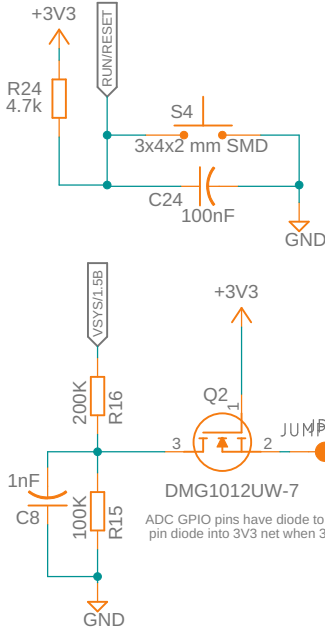
RP2040 - SERIAL FLASH MEMORY



RP2040 - DEBUG DEBUSER

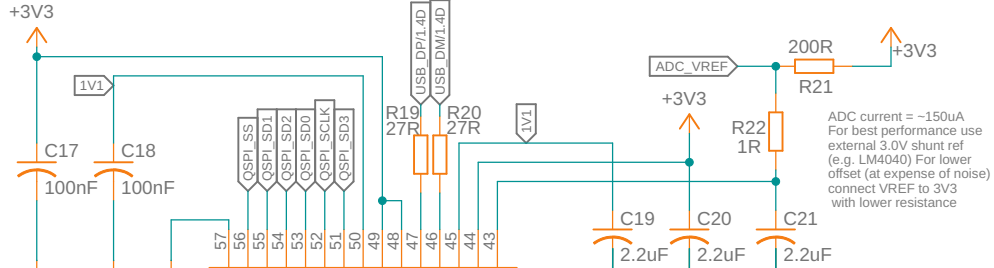
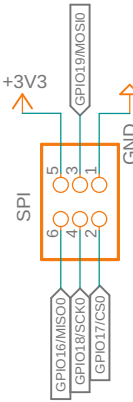


RP2040 - RESET BUTTON



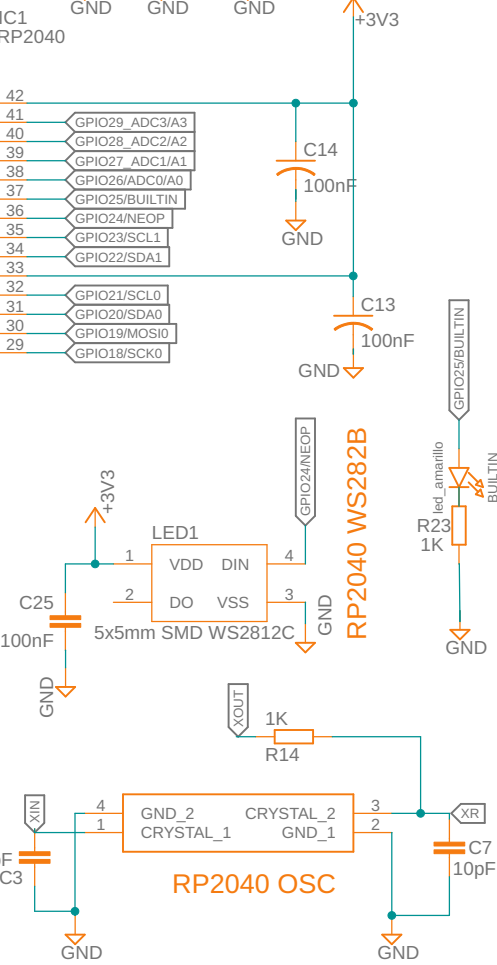
ADC GPIO pins have diode to VDDIO (other GPIO do not) FET stops leakage through ADC3 pin diode into 3V3 net when 3V3 supply is off (VSYS present but 3V3_EN low)

RP2040 - SPI HEADER



ADC current = ~150uA
For best performance use external 3.0V shunt ref (e.g. LM4040) For lower offset (at expense of noise) connect VREF to 3V3 with lower resistance

RP2040

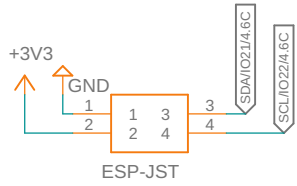


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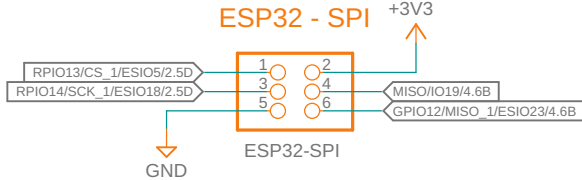
PROPRIETARY

Title: UNIT DualMCU R-ONE		
SKU: UE0022	REV: 2.0.0	
Last date time: 14/05/2024 02:08 p.m.	SHEET: 2 of 4	
File: DualMCU_R-ONE_Schematic		Author: ADRIAN RABADAN ORTIZ

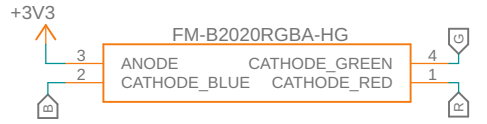
I2C - JST CONNECTOR (1 mm pitch)



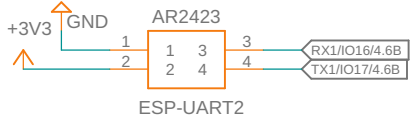
ESP32 - SPI



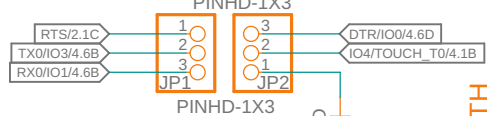
ESP32 - RGB 2020 LED



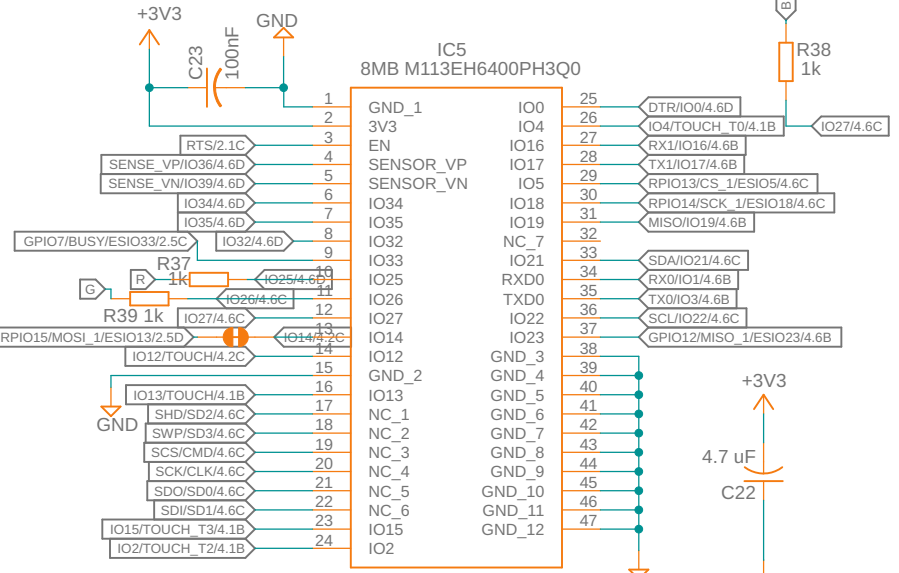
UART2 - JST CONNECTOR (1 mm pitch)



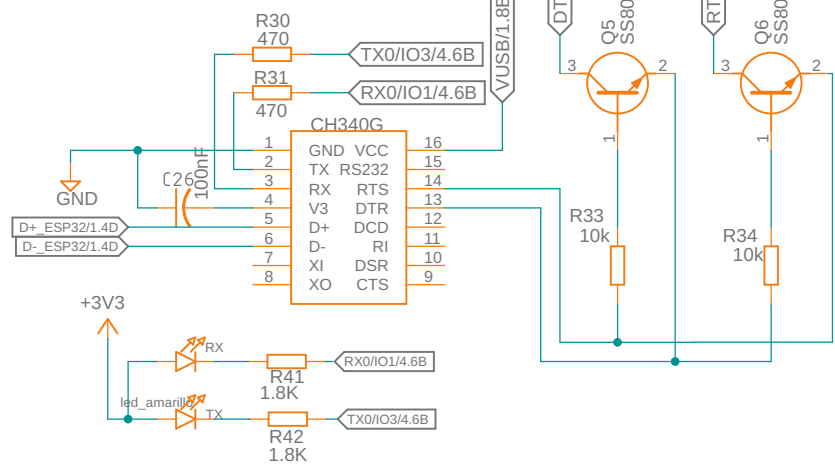
ESP32 - PROG



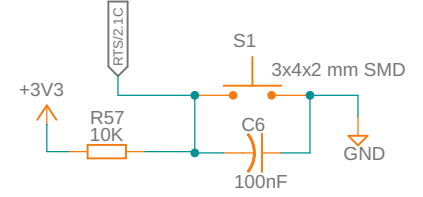
ESP32 WIFI&BLUETOOTH



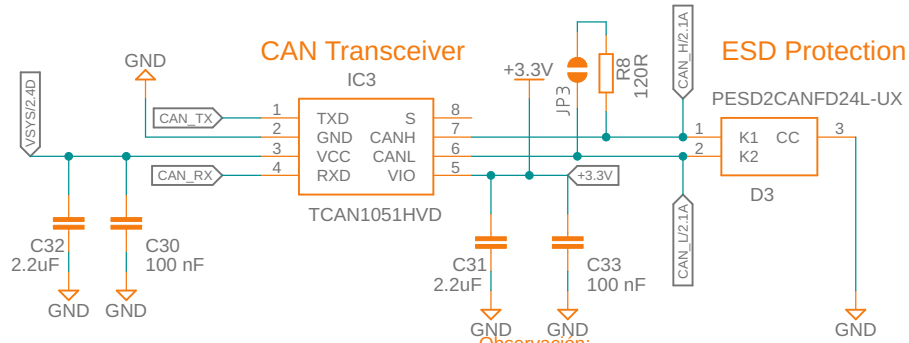
USB -> CH340 CONNECTION



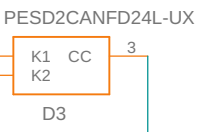
ESP32 - RESET BUTTON



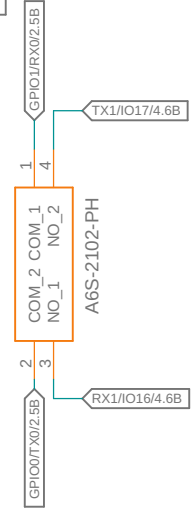
CAN Transceiver



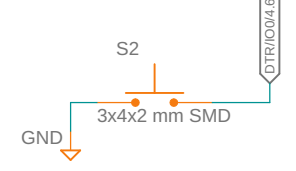
ESD Protection



UART DIP switch - ESP32 to RP2040



ESP32 - BOOT BUTTON

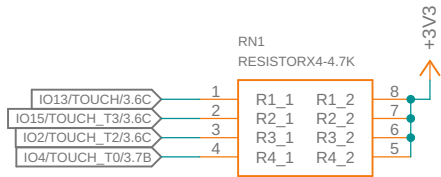


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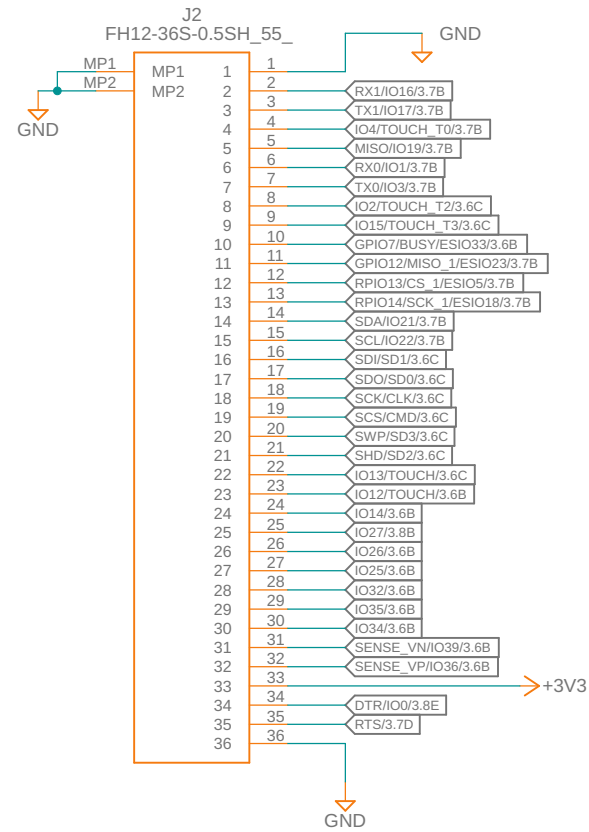
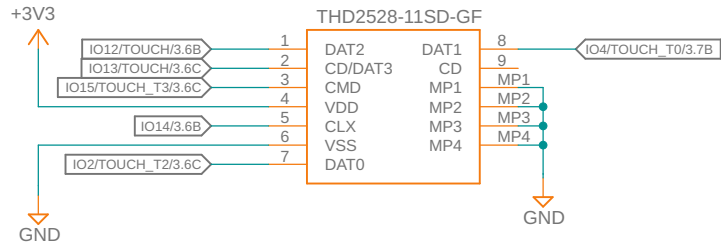
PROPRIETARY

Observacion:
Falta conectar pad selector +5V/+3V3 al VIO de CAN transceiver
Posible corto entre 1v1 y Memoria Flash SD3 del RP2040

Title: UNIT DualMCU R-ONE		
SKU: UE0022	REV: 2.0.0	
Last date time: 14/05/2024 02:08 p. m.	SHEET: 3 of 4	
File: DualMCU_R-ONE_Schematic	Sheet description:	Author: ADRIAN RABADAN ORTIZ



microSD CONNECTOR



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PROPRIETARY

Title: UNIT DualMCU R-ONE

SKU: UE0022

REV: 2.0.0

Last date time: 14/05/2024 02:08 p. m.

SHEET: 4 of 4

File: DualMCU_R-ONE_Schematic

Sheet description:

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