

Questa scheda si basa sull'integrato ESP32-S3  
Ha le seguenti interfacce

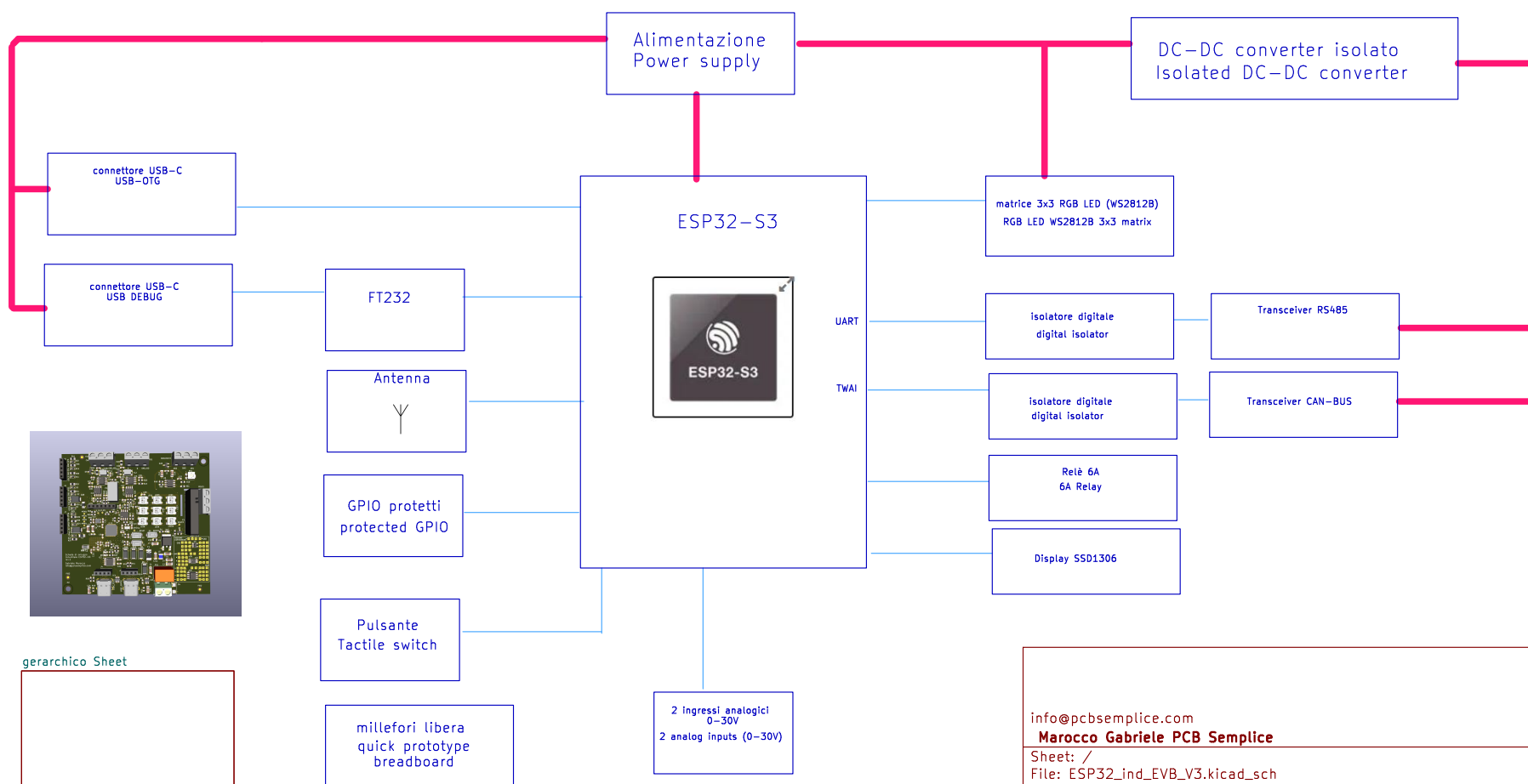
- USB di debug (collegata a una porta UART dell'integrato
  - USB nativa
  - CAN BUS isolato
  - RS485 isolata

E' presente una matrice di 9 LED (3X3) RGB WS12B  
E' contenuta una sezione libera destinata ad esperimenti

This board is based on the microcontroller ESP32-S3  
There are the following physical communication interfaces

- debug USB (it is connected to a UART port of ESP32-S3
  - native USB
  - isolated CAN BUS with termination resistor
  - isolated RS485 with termination resistor

There is a 9 RGB LED matrix (WS2812B)  
There is a free section of testpoints for experiments



gerarchico Sheet

File: gerarchico.kicad\_sch

info@pcbsemplce.com

**Marocco Gabriele PCB Semplice**

Sheet: /

File: ESP32\_ind\_EVB\_V3.kicad\_sch

**Title: ESP32-S3 industrial EVB**

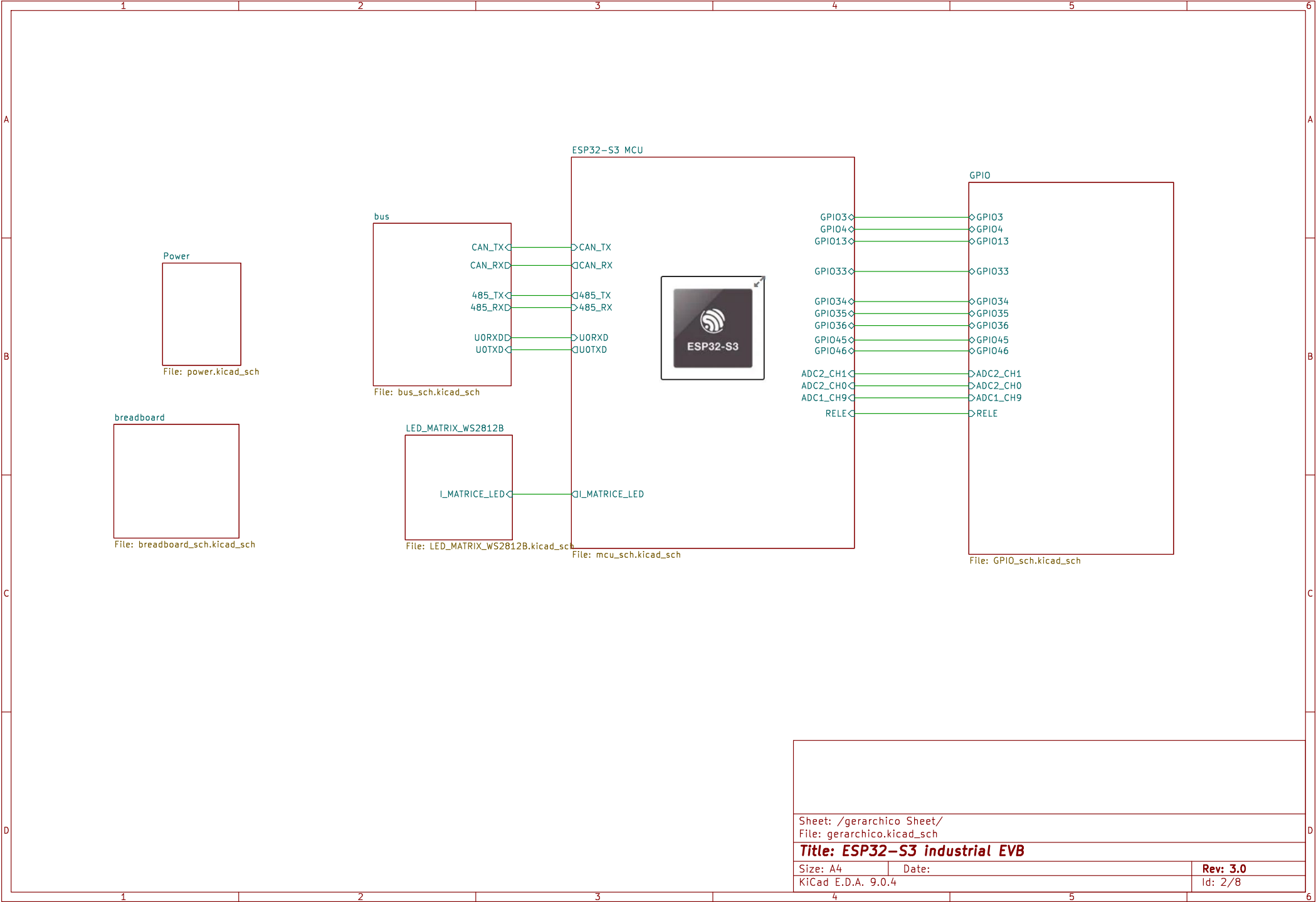
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Date: 2024-08-27

KiCad E.D.A. 9.0.4

**Rev: 3.0**

Id: 1/8





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Size: A4

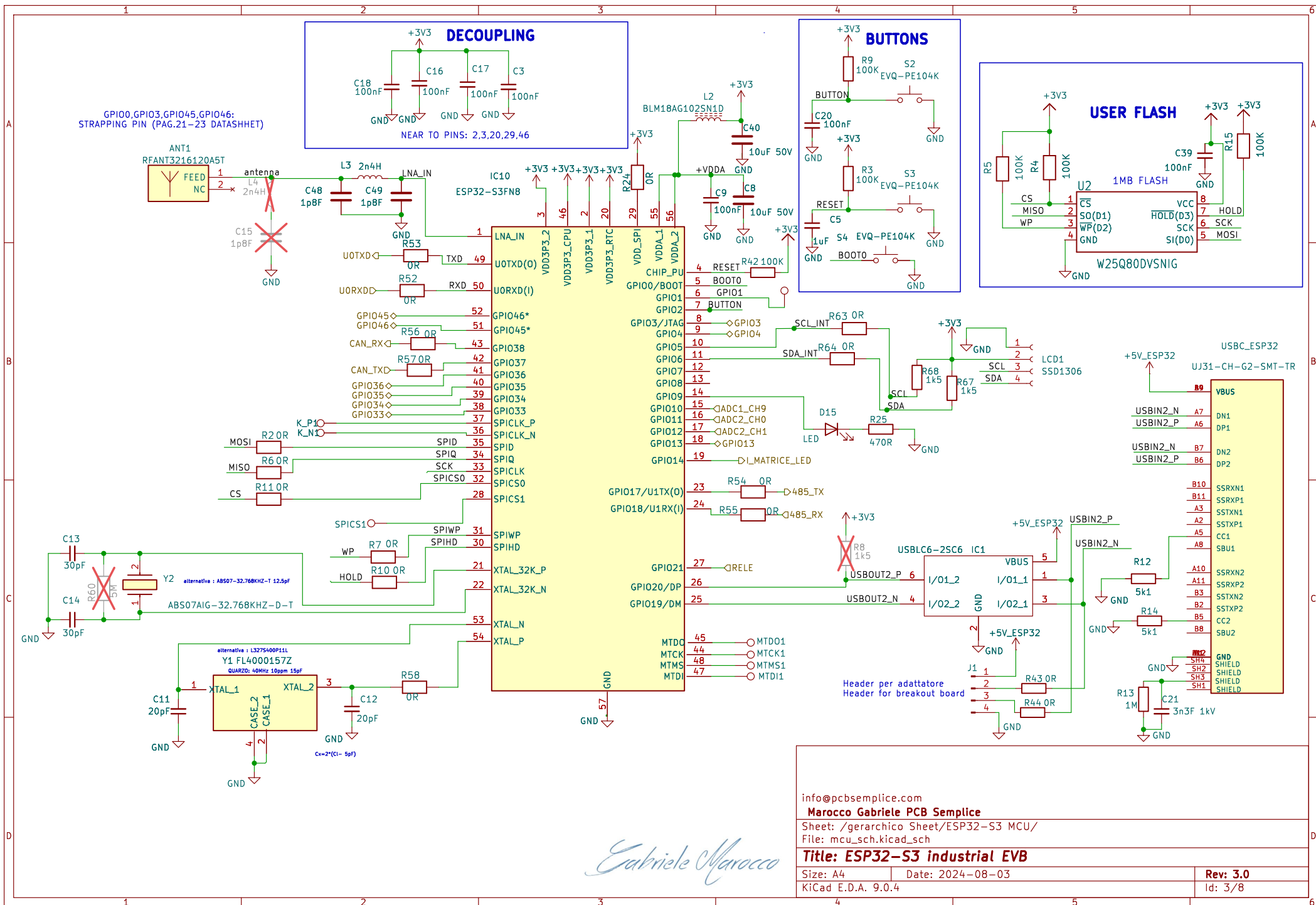
Date: 2024-08-03

Rev: 3.0

Size: A1	
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Id: 3/8

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**Marocco Gabriele PCB Semplice**

Sheet: /gerarchico Sheet/ESP32-S3 MCU/

File: mcu\_sch.kicad\_sch

**Title: ESP32-S3 industrial EVB**

Size: A4

Date: 2024-08-03

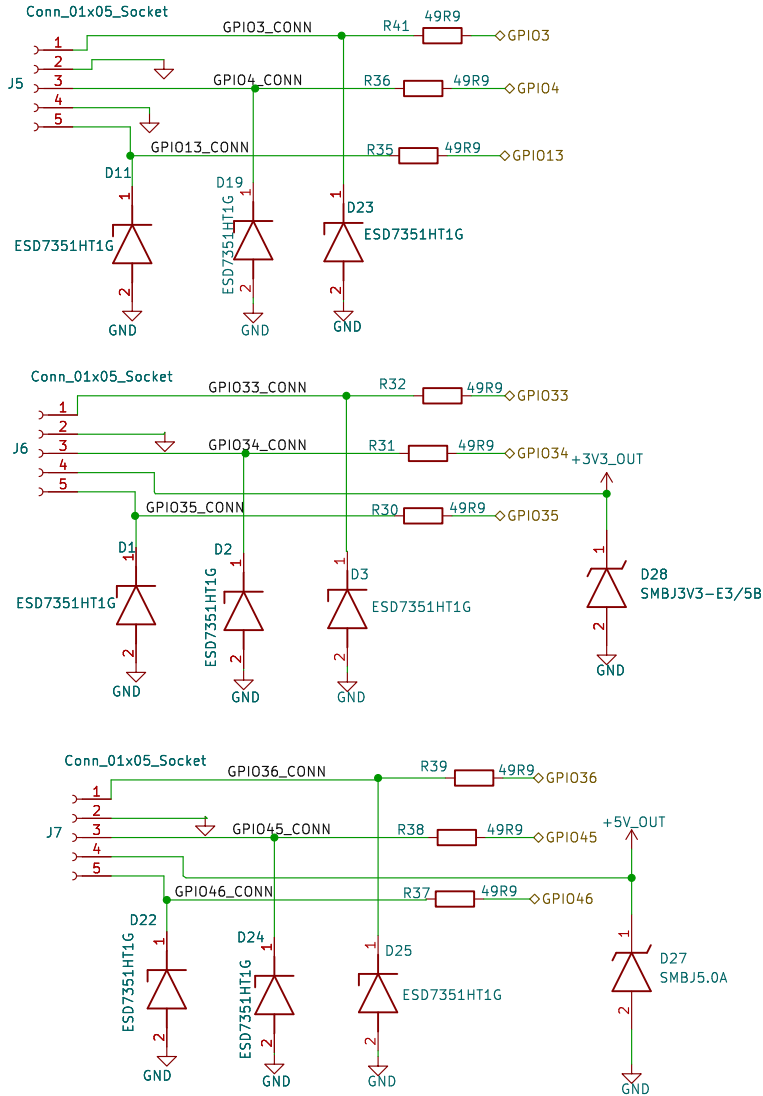
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**Rev: 3.0**

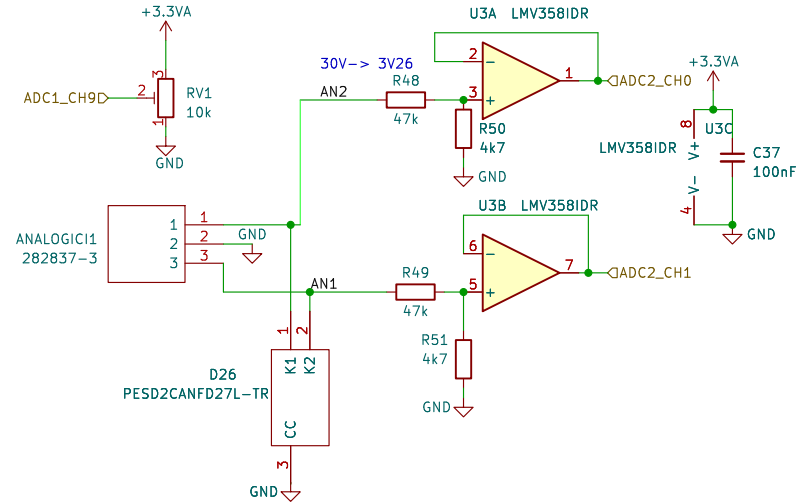
Id: 3/8

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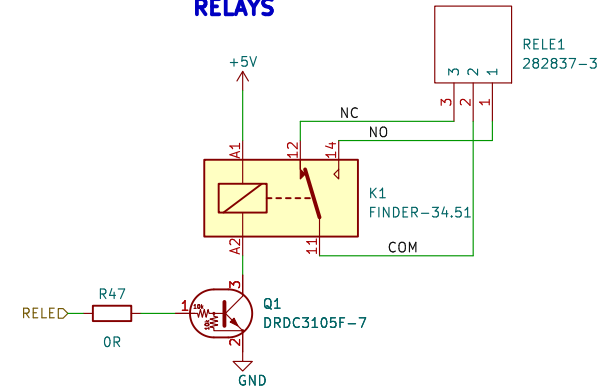
## EXTERNAL CONNECTORS



## ANALOG SIGNALS



## RELAYS



- FID1 Fiducial
- FID2 Fiducial
- FID3 Fiducial
- FID4 Fiducial
- H1 MountingHole
- H2 MountingHole

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**Marocco Gabriele PCB Semplice**

Sheet: /gerarchico Sheet/GPIO/

File: GPIO\_sch.kicad\_sch

**Title: ESP32-S3 industrial EVB**

Size: A4

Date: 2024-08-03

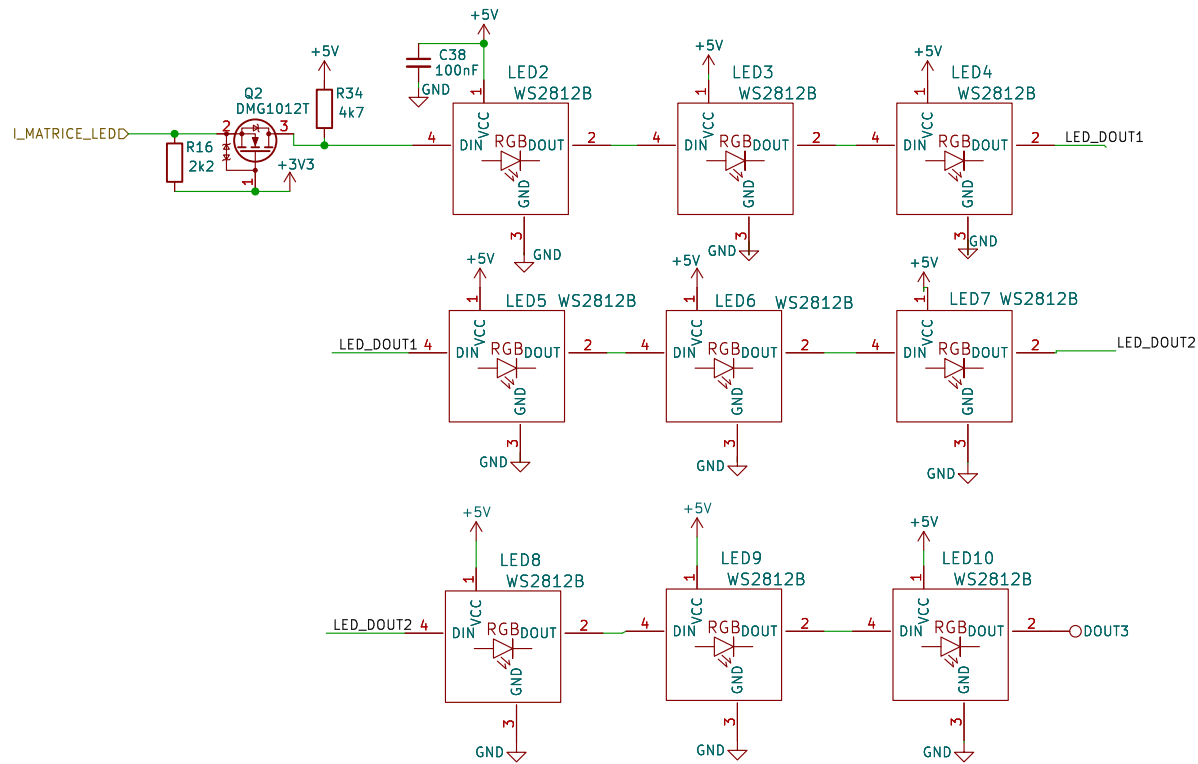
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matrice di LED RGB (WS2812)  
WS2812 RGB LED matrix



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**Marocco Gabriele PCB Semplice**

Sheet: /gerarchico Sheet/LED\_MATRIX\_WS2812B/

File: LED\_MATRIX\_WS2812B.kicad\_sch

**Title: ESP32-S3 industrial EVB**

Size: A4

Date: 2024-08-03

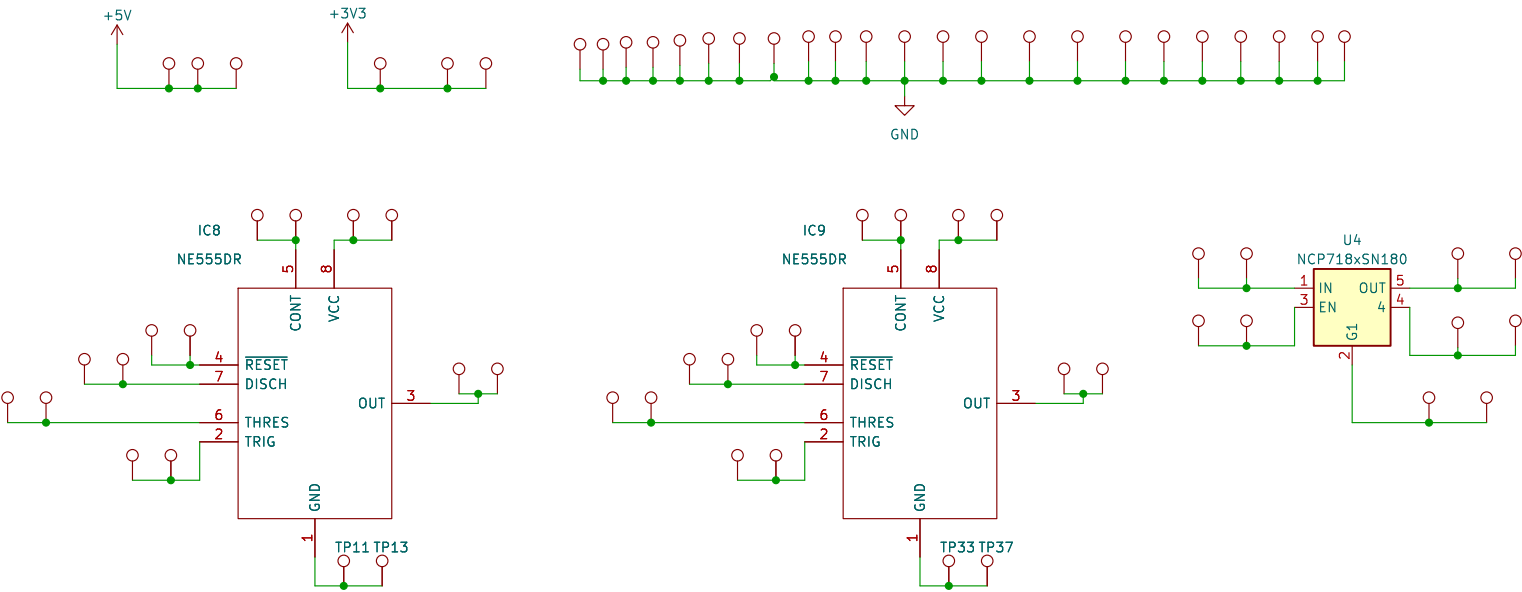
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Testpoint e piazzole libere per esperimenti

Free testpoints and pads for experiments



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# RS-485

# CAN-BUS

# USB-UART

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**Marocco Gabriele PCB Semplice**

Sheet: /gerarchico Sheet/bus/

File: bus\_sch.kicad\_sch

**Title: ESP32-S3 industrial EVB**

Size: A4

Date: 2024-08-03

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**Rev: 3.0**

Id: 8/8

