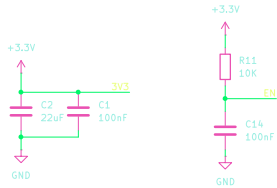


# Decouplers



USB

J5

USB\_C\_Receptacle\_USB2.0\_16P

VBUS = A4 VCC

CC1 = A5

CC2 = B5

D- = A7

D+ = B7

D- = A6

D+ = B6

SHIELD

GND

SBUS1 = AB

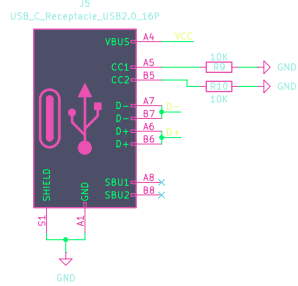
SBUS2 = BB

10K

10K

GND

GND



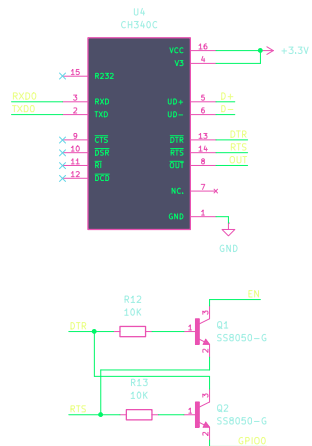
The diagram shows a USB-UART bridge circuit using a CH340C IC. The IC is connected to a USB port (D+, D-, GND) and a UART port (DTR, RTS, GND). The circuit includes two NPN transistors (Q1, Q2) and two resistors (R12, R13).

**IC Pin Connections:**

- VCC: +3.3V
- V3: +3.3V
- R232: 15
- R40: 5
- TxD: 2
- R1: 9
- DTR: 10
- RTS: 11
- OUT: 12
- NC: 7
- GND: 1

**Transistor Connections:**

- Q1 (SS8050-G): Base connected to DTR via R12 (10K), Emitter to GND, Collector to D+.
- Q2 (SS8050-G): Base connected to RTS via R13 (10K), Emitter to GND, Collector to D-.



ESP32-S3-WROOM-1

U2

3V3

2

3V3

EN

GPIO0

GPIO1

GPIO2

GPIO3

GPIO4

GPIO5

GPIO6

GPIO7

GPIO8

GPIO9

GPIO10

GPIO11

GPIO12

GPIO13

GPIO14

GPIO15

GPIO16

TXD0

RXD0

TXD1

RXD1

TXD2

RXD2

TXD3

RXD3

TXD4

RXD4

GPIO17

GPIO18

D-

D+

GPIO19

GPIO20

GPIO21

GPIO22

GPIO23

GPIO24

GPIO25

GPIO26

GPIO27

GPIO28

GPIO29

GPIO30

GPIO31

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GPIO373

GPIO374

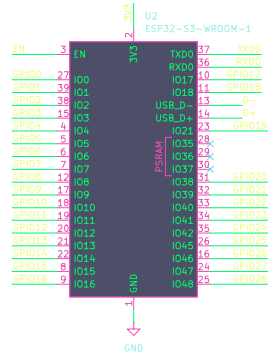
GPIO375

GPIO376

GPIO377

GPIO378

GPIO

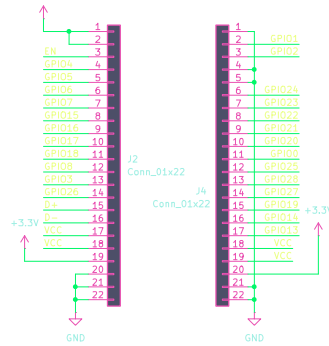


## Connectors

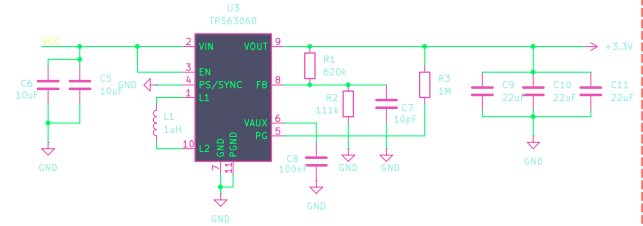
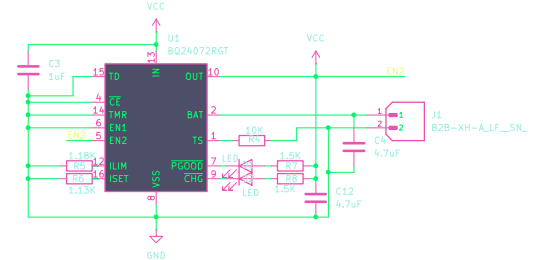
The diagram shows two connectors, J2 and J4, with their pin configurations and connections. Connector J2 is a 22-pin connector with pins 1 through 22. Pins 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, and 22 are labeled. Pins 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, and 22 are connected to a +3.3V supply. Pins 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, and 22 are connected to a GND supply. Connector J4 is a 22-pin connector with pins 1 through 22. Pins 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, and 22 are labeled. Pins 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, and 22 are connected to a +3.3V supply. Pins 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, and 22 are connected to a GND supply.

**J2**  
Conn\_01x22

**J4**  
Conn\_01x22



The diagram shows a buck-boost converter circuit using the TPS63060 IC. The input voltage is 3.3V and the output is 1.8V. The circuit includes an input capacitor C6 (10uF), a feedback network with R1 (620k) and R2 (111k), an output capacitor C7 (10pF), and a load capacitor C8 (100nF). The IC is labeled U3 TPS63060.

[illegible][illegible]