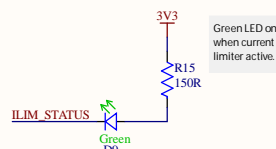
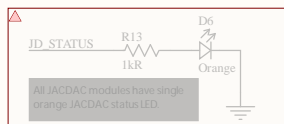
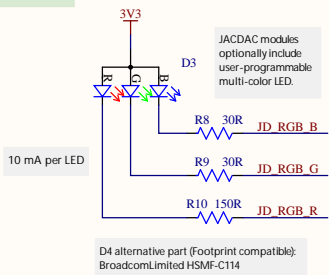
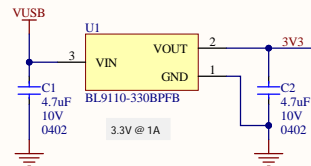


## Status LEDs

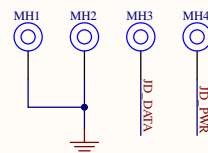


## 3V3 regulator



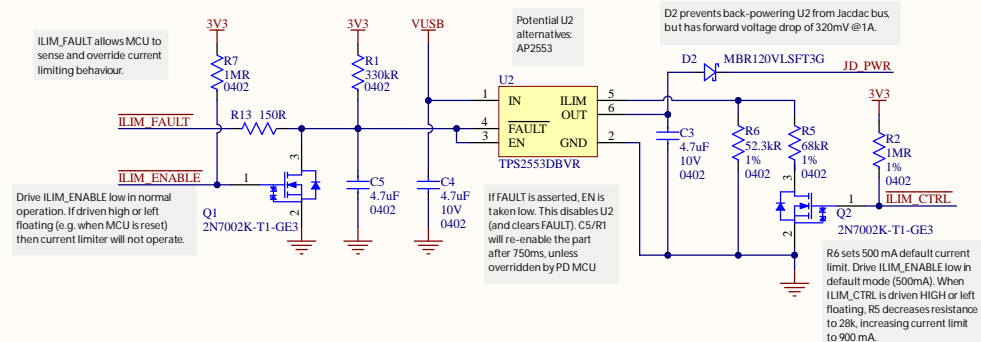
## Mounting holes

MH1, 2 connects to GND.  
MH3 connects to JD\_DATA, and  
MH4 connects to JD\_PWR.

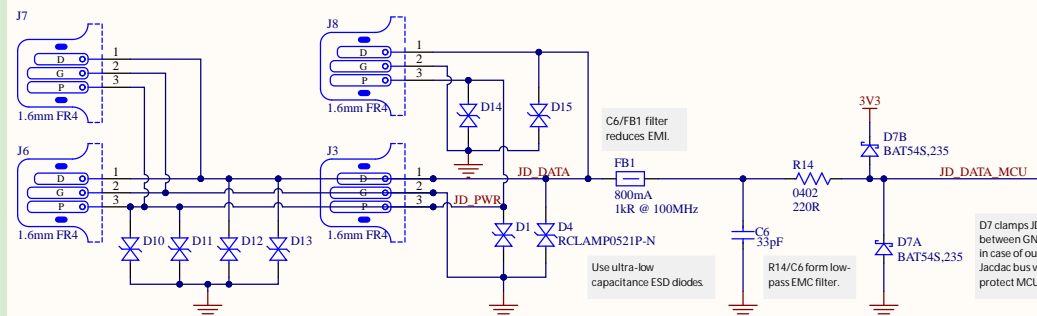


JADCAC mounting holes plated through hole, finished diameter of 2.2mm and annular ring of 3.2mm diameter.

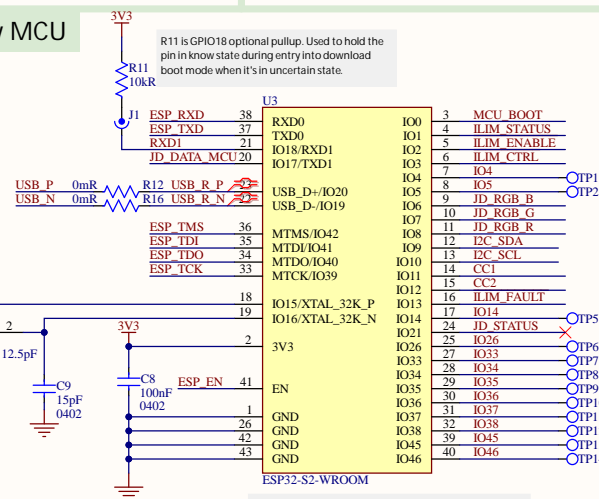
## Current limiter



## Jadcac interface



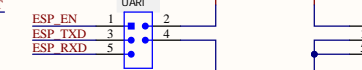
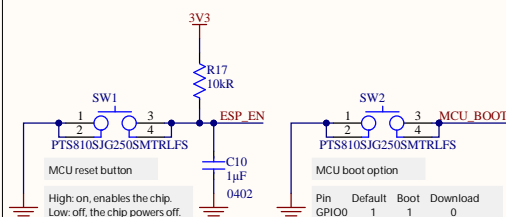
## Brain & power delivery MCU



X1: ESR = Max. 70kR

Alternative part:  
SMD31327681252090 - lscs.com

All GPIOs can be configured as internal pull-up or pull-down, or set to high impedance, except for GPIO46, which is fixed to pull-down.

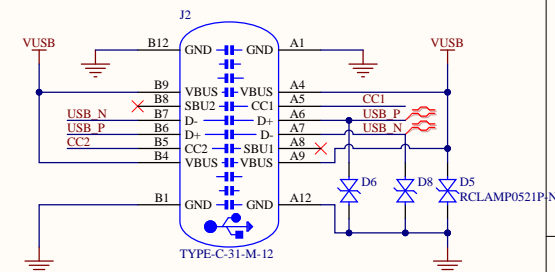


## USB & Qwiic interface

Either CC1 or CC2 will be connected to the DFP (host) via cable. Pull down resistors R3/R4 will form a potential divider with the pull up resistors on the DFP.

Via ADC, the MCU can sense the power delivery capabilities of the DFP without any negotiation.

DFP pull up:	Max current:	10-bit ADC value when VUSB=5V:
56k	500 mA	56k/5.1k = 129
22k	1500 mA	22k/5.1k = 292
10k	3000 mA	10k/5.1k = 525



Silkscreen & layout notes

Block name

Design notes

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When this PDF is viewed with Adobe Reader, clicking on components shows part numbers and other details.

Microsoft

PROJECT DESCRIPTION  
Jadcac ESP32 brain

SHEET DESCRIPTION  
complete design

LAST MODIFIED 05/08/2021 PAGE 1 OF 1 DRAWN BY JD, SH & DG REVISION 0.3 PCB ID 48-0.3

SHEET FILENAME JadcacBrainESP32 48.SchDoc

PROJECT FILENAME JadcacBrainESP32 48.PrjPCB

PROJECT CODENAME JadcacBrainESP32

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