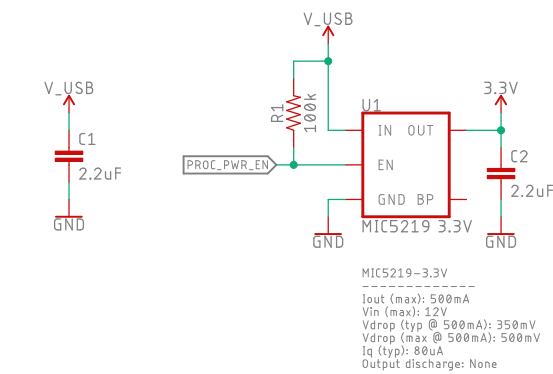
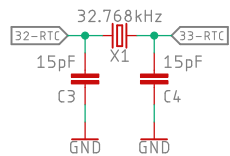


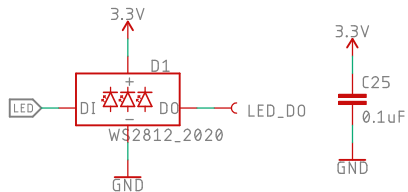
Voltage Regulation



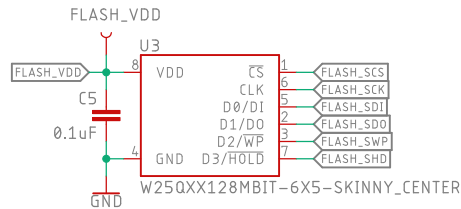
32.768kHz RTC Crystal



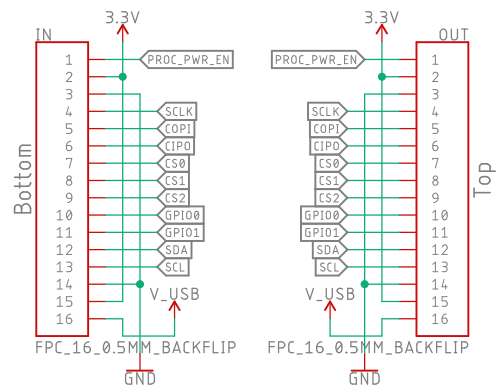
RGB LED



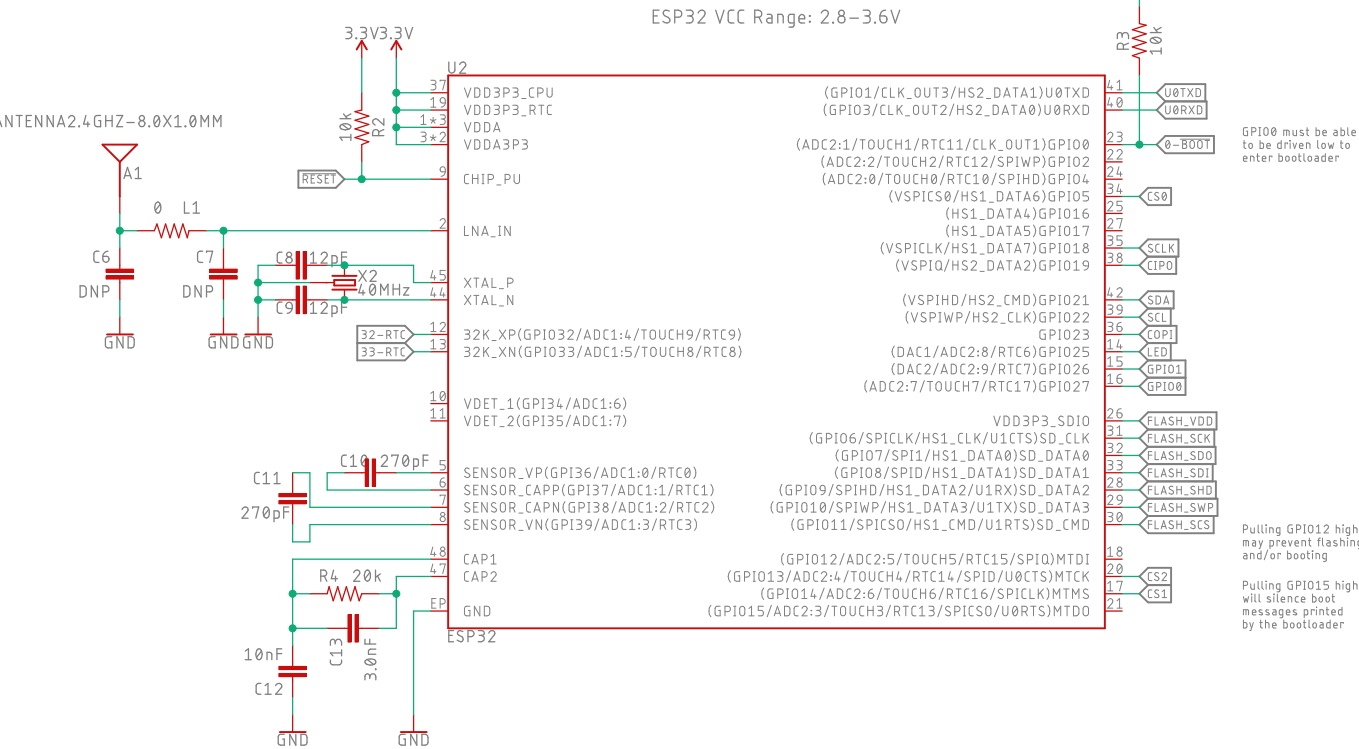
128Mb Flash



EZ Connectors

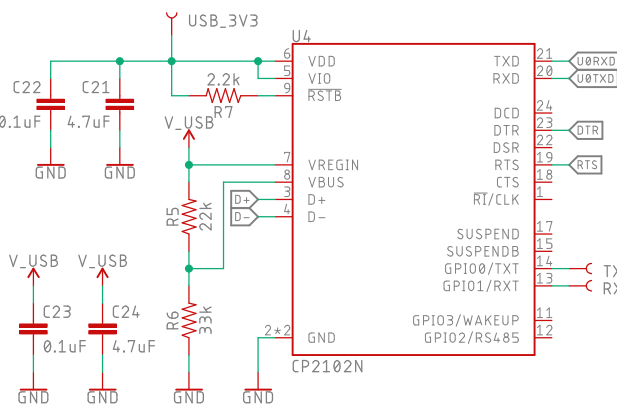


Espressif ESP32



RF Track Impedance: Coplanar Waveguide with Ground Calculations
<https://chemandy.com/calculators/coplanar-waveguide-with-ground-calculator.htm>
JLCPCB JLC7628 4-Layer 1.2mm Impedance Control Stackup (Er = 4.6)
Ground is on layer 2.
Prepreg thickness: 0.2mm
12 mil track with 4 mil gap = 49.5 Ohms

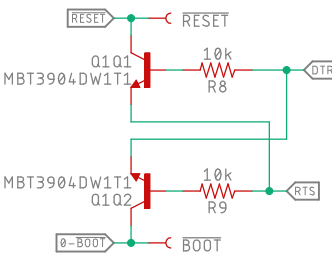
CP2102N (USB-to-Serial Converter)



Auto-Reset

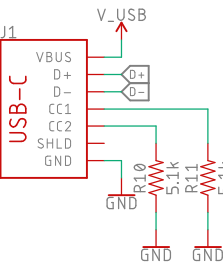
Boot Mode Configuration			
Pin	Default	Boot	Download
GPIO0	1	1	0
U0TXD	1	1	x
GPIO2	0	x	0
GPIO4	0	x	x
MTDO	1	x	x
GPIO5	1	1	x

If U0TXD, GPIO2, GPIO5 are floating, GPIO0 determines boot mode



If DTR is LOW, toggling RTS from HIGH to LOW resets to run mode.
If RTS is HIGH, toggling DTR from LOW to HIGH resets to bootloader.

USB



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TITLE: SparkX_EZ_ESP32		REV: X01
Design by: Paul Clark		
Date: 14/05/2021 07:35	Sheet: 1/1	