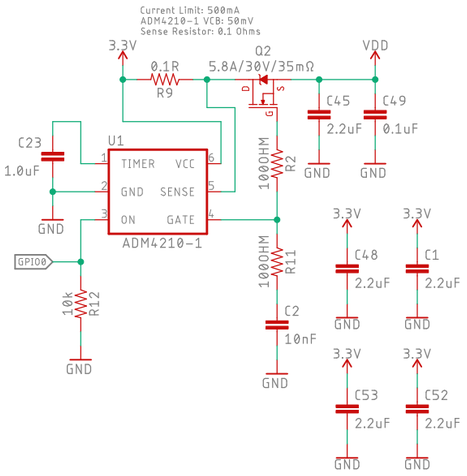
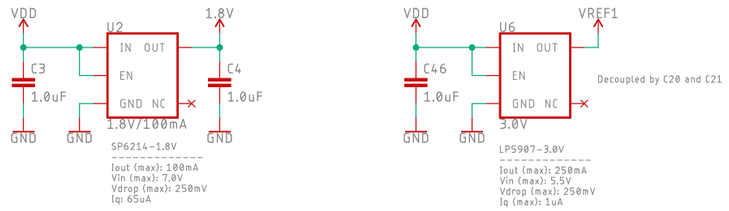
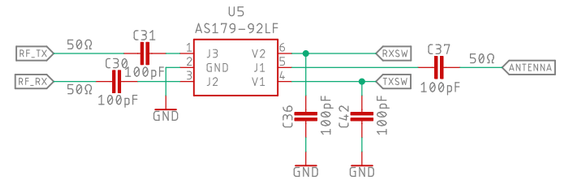
## Power Switching & Inrush Current Limit



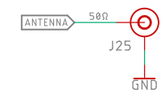

## Voltage Regulation



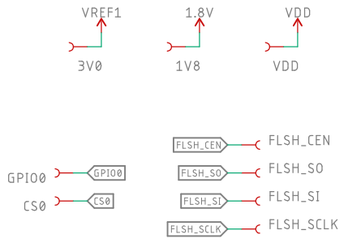

## Antenna Switch



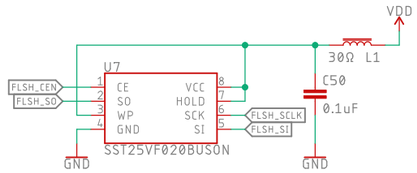

## Antenna



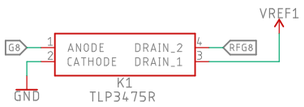

## Test Points



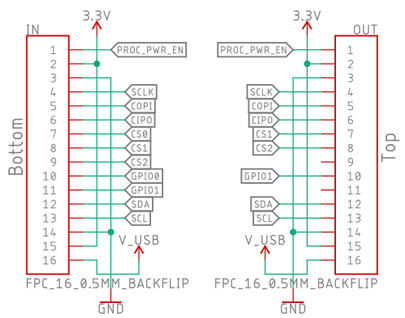

## FLASH Memory



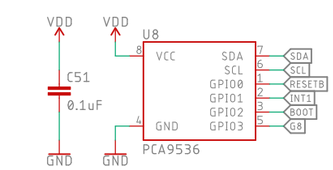

## Gain Opto-Isolation



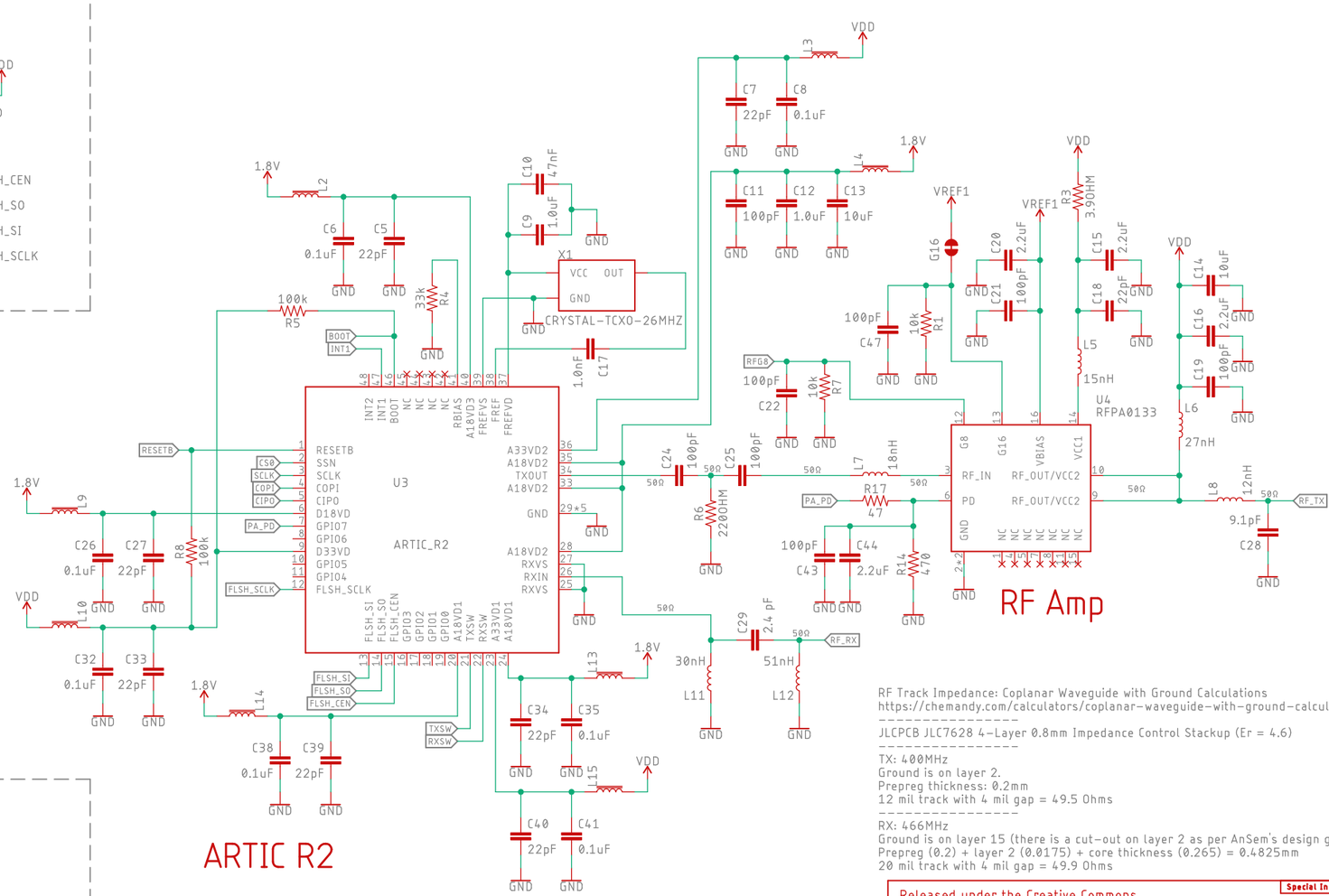

## EZ Connectors




## I2C GPIO




## ARTIC R2




RF Track Impedance: Coplanar Waveguide with Ground Calculations
https://chemandy.com/calculators/coplanar-waveguide-with-ground-calculator.htm

JLCPCB JLC7628 4-Layer 0.8mm Impedance Control Stackup (Er = 4.6)

TX: 400MHz
Ground is on layer 2.
Prepreg thickness: 0.2mm
12 mil track with 4 mil gap = 49.5 Ohms

RX: 466MHz
Ground is on layer 15 (there is a cut-out on layer 2 as per AnSem's design guide).
Prepreg (0.2) + layer 2 (0.0175) + core thickness (0.265) = 0.4825mm
20 mil track with 4 mil gap = 49.9 Ohms

open hardware

SPARK X



| | | |
|---|---|---|
| TITLE: SparkX_EZ_ARTIC_R2 | | |
| Design by: Paul Clark<br>Based on the Icoteq Reference Design | | REV: X01 |
| Date: not saved! | Sheet: 1/1 | |