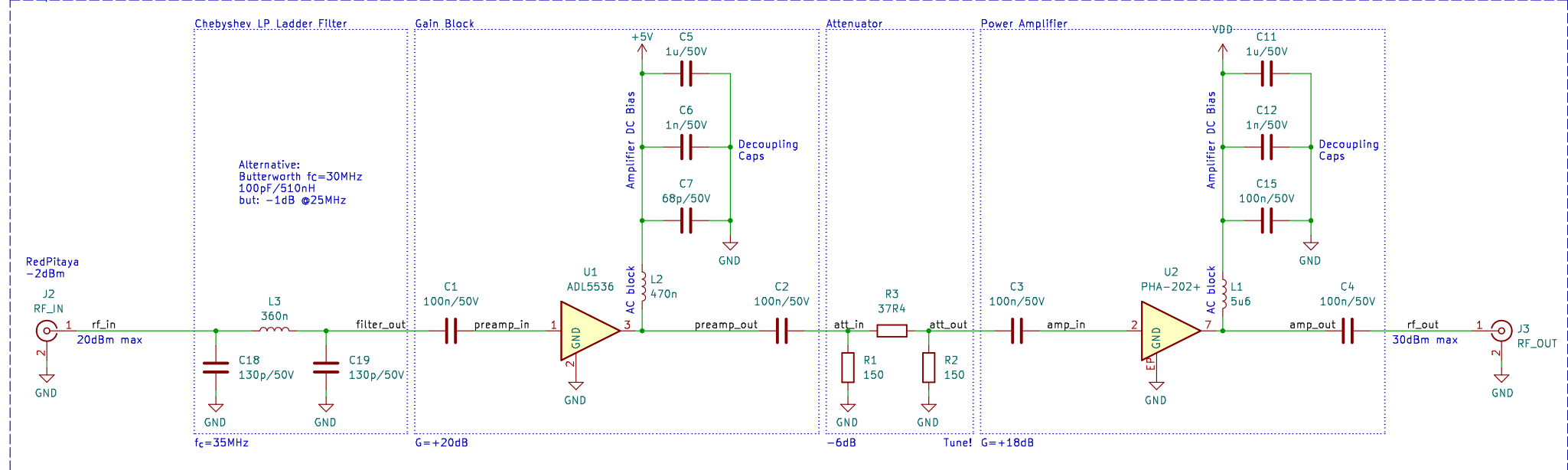
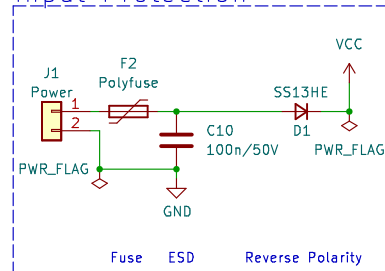


# Amplifier, 50Ohm, 30MHz..1GHz, G=32dB, P1dB=30dBm



## Input Protection



### Design Goals:

- Easy to solder/fix/adjust
- Standard parts
- Standard PCB (FR4)
- Standard manufacturing (standard design constraints)

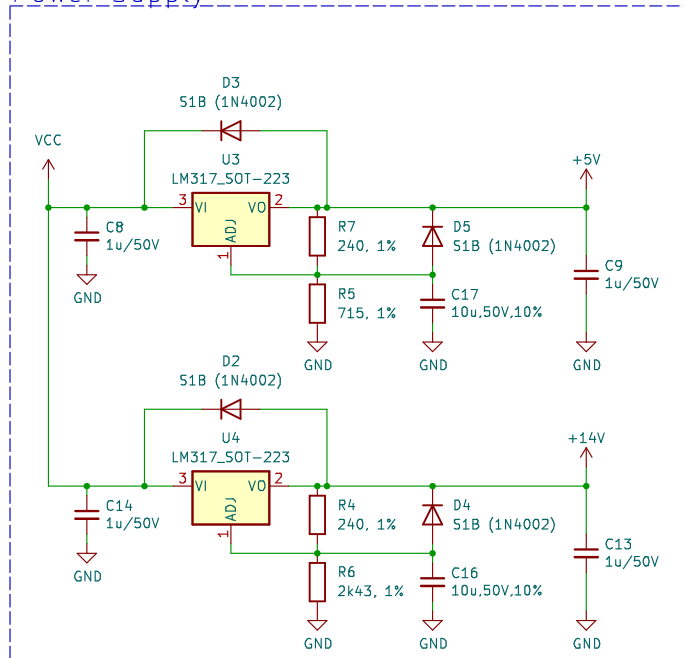
### PCB:

- 1.51mm (60mil) FR4 (Dk = 4,5)
- 35um (1oz) copper (both sides)

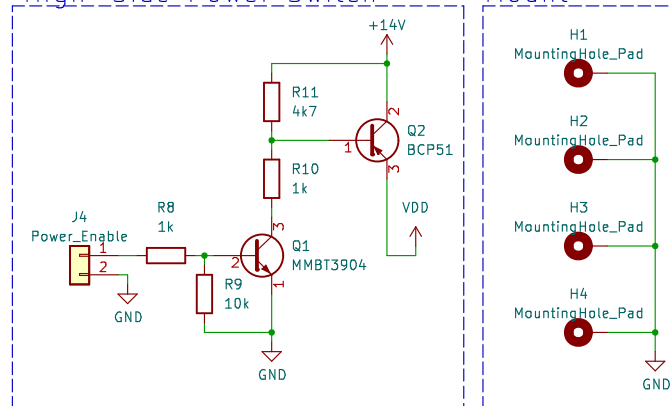
### Coplanar Wave Guide with ground plane (KiCAD Calculator Tools)

- $\epsilon_r = 5$
- $\tan\delta = 0,02$
- $\rho = 1,72e-08$
- $H = 1,51\text{mm}$
- $T = 35\mu\text{m}$
- $f = 25\text{MHz}$
- $W = 1,45\text{mm}$  (0805 pad height)
- $\Rightarrow S = 0,355\text{mm}$

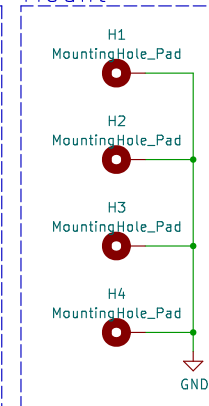
## Power Supply



## High-Side Power Switch



## Mount



Maximilian Stabel  
ETH Zürich

Sheet: /

File: poweramp.kicad\_sch

**Title: RF Power Amplifier**

Size: A4 Date: 2023-06-23

KiCad E.D.A. kicad 7.0.7-2.fc38

Rev: 1

Id: 1/1