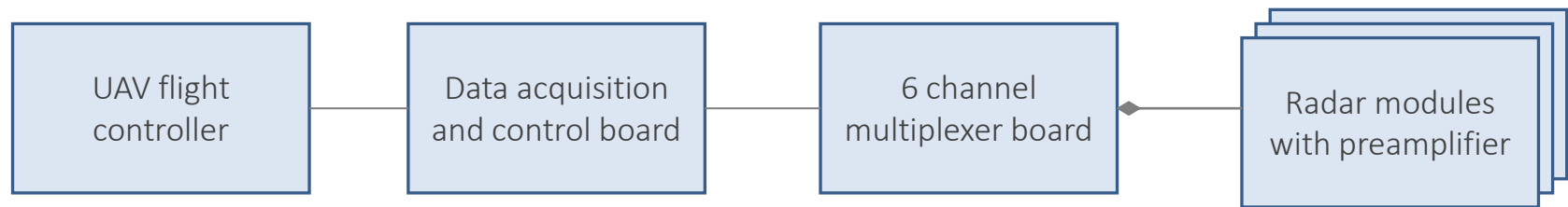


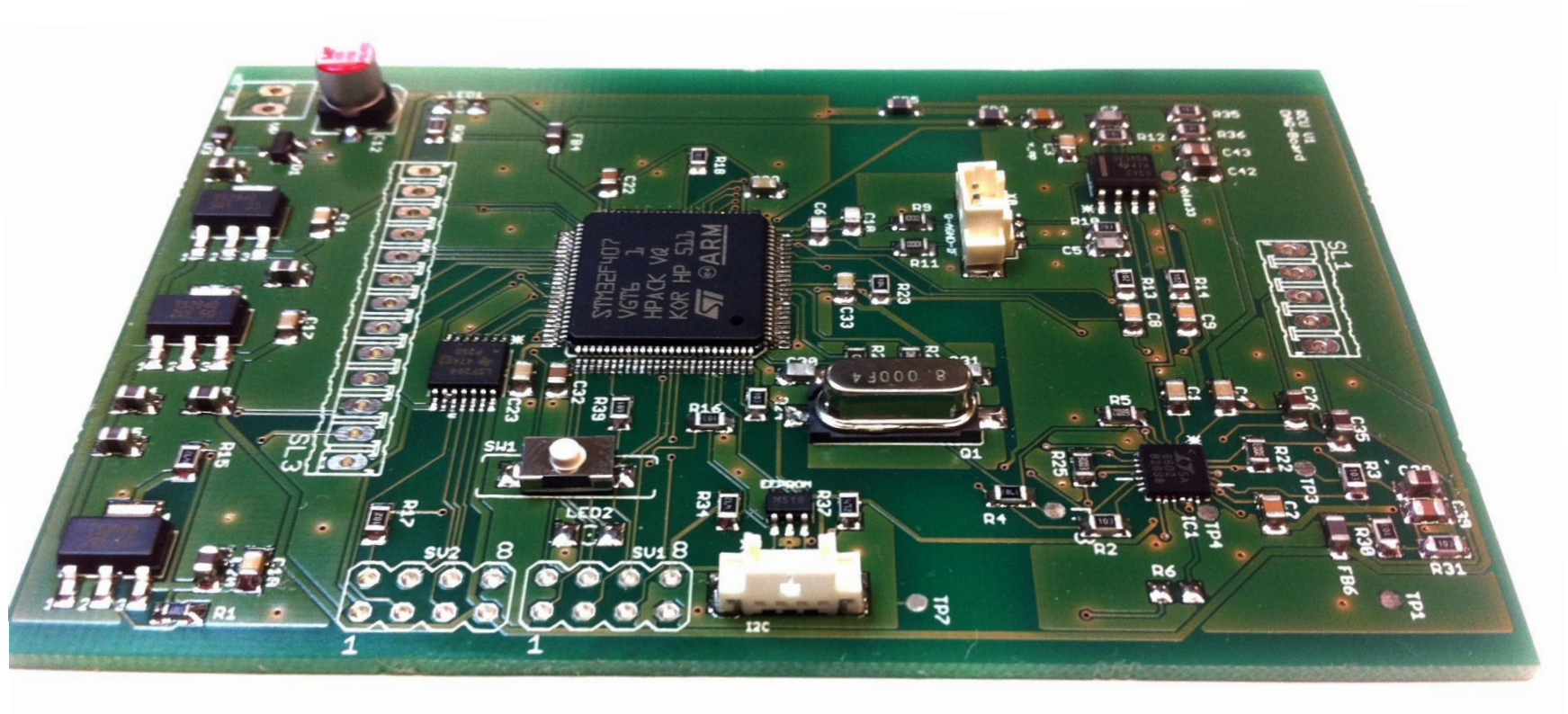
General project description

The aim of this Project is an embedded system capable of detecting nearby obstacles. The ranging is realized using common 24GHz short range radar modules with VCO (voltage controlled oscillator) in an FMCW (frequency modulated continuous wave) setup. Combined with a flight controller this system shall be able to extend small UAVs (unmanned aerial vehicle) with radar based sense and avoid capabilities.

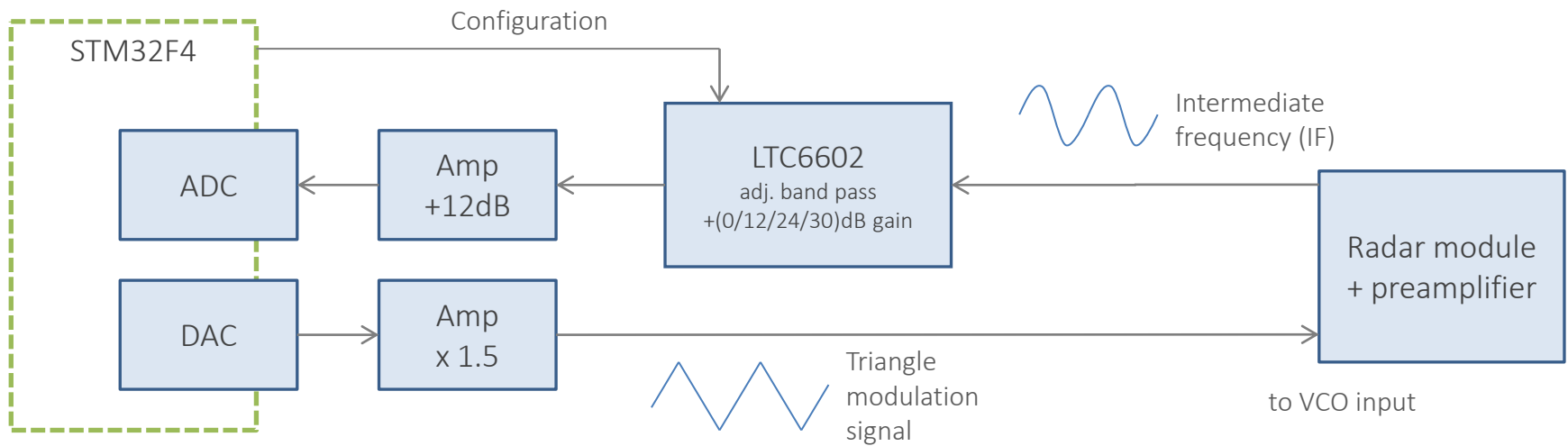


Sense and avoid setup

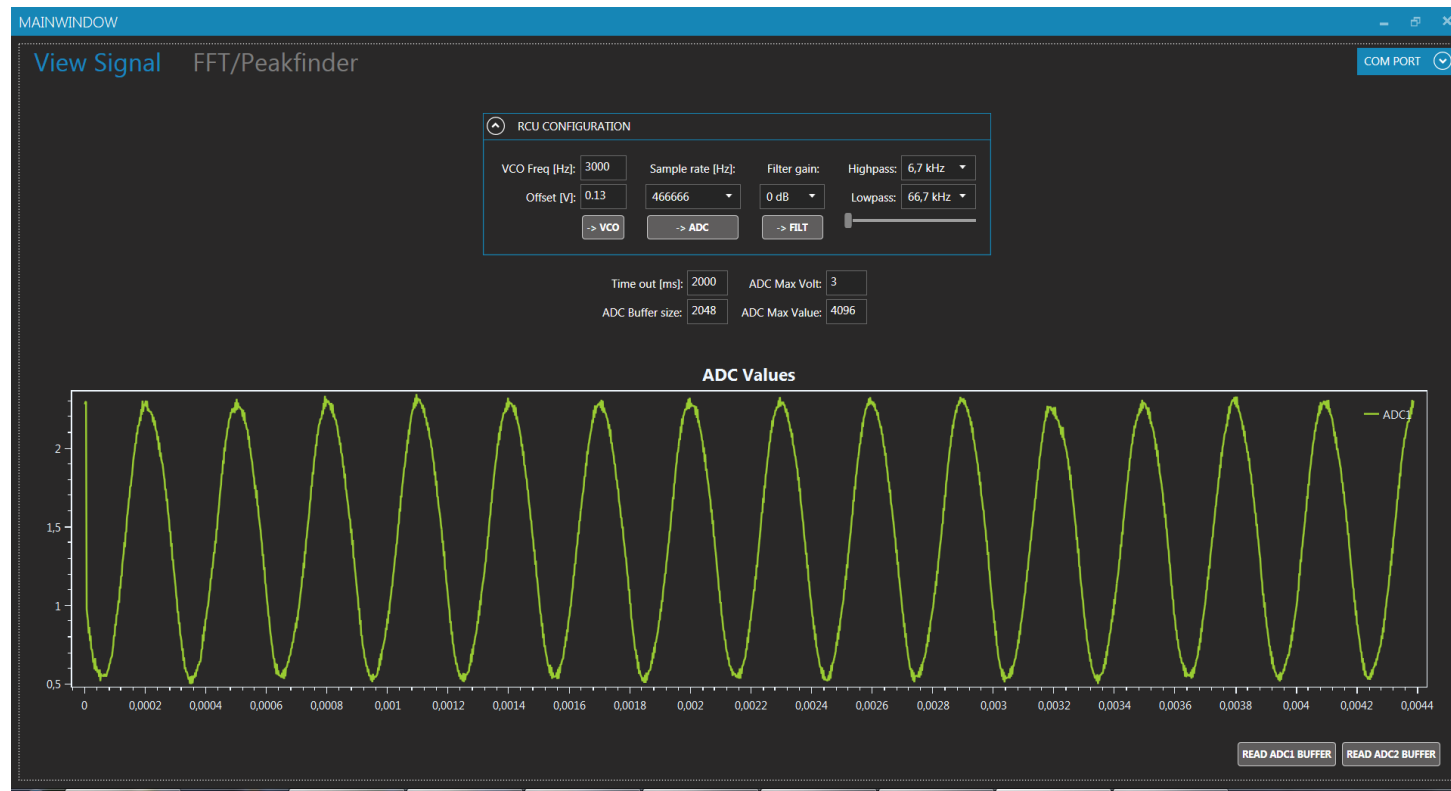
RCUv1: Radar control unit - data acquisition board



RCUv1: Data acquisition board – Basic hardware layout



Component test programme (alpha version)



A strongly damped 10kHz sine test signal captured by the RCU board.

The radar analysis algorithm will be designed using Test Driven Development

