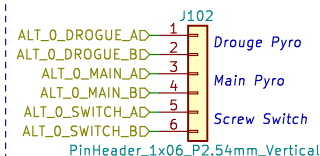
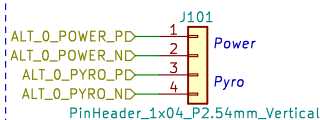


Altimeter 0

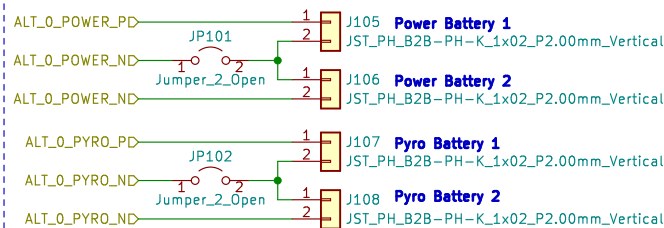
The follow circuitry is exclusively for Altimeter 0.

Altimeter Screw Terminal Block



Channels connected from the altimeter directly to the COTS Altimeter Board. Solder stranded wire directly.

Battery Connectors



Connectors that connect external batteries to the COTS Altimeter Board for routing.

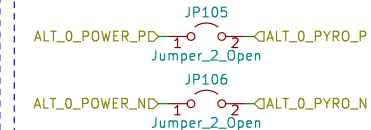
Short the jumper to use two batteries in series, or leave open for one battery. Typical batteries are 3.7V Lipos and when connected in series provide 7.4V. Different altimeters require different voltages.

External Connectors



Board connectors that connect external altimeter circuitry to the COTS Altimeter Board for routing.

Power/Pyro Battery Jumpers

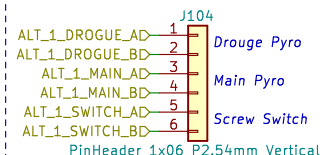
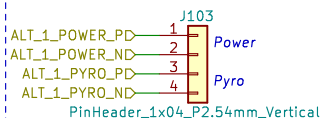


If a separate pyro battery is not used, short the jumpers to use the power battery as a substitute.

Altimeter 1

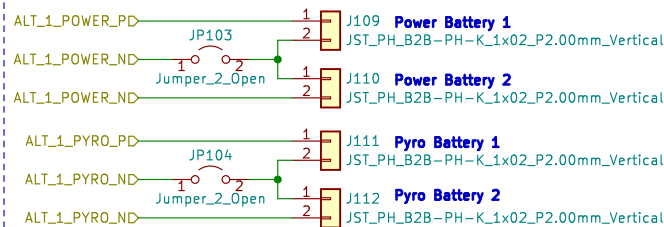
The follow circuitry is exclusively for Altimeter 1.

Altimeter Screw Terminal Block



Channels connected from the altimeter directly to the COTS Altimeter Board. Solder stranded wire directly.

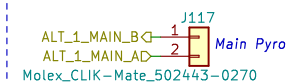
Battery Connectors



Connectors that connect external batteries to the COTS Altimeter Board for routing.

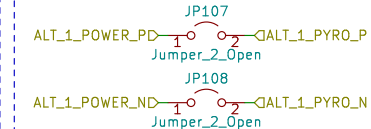
Short the jumper to use two batteries in series, or leave open for one battery. Typical batteries are 3.7V Lipos and when connected in series provide 7.4V. Different altimeters require different voltages.

External Connectors



Board connectors that connect external altimeter circuitry to the COTS Altimeter Board for routing.

Power/Pyro Battery Jumpers



If a separate pyro battery is not used, short the jumpers to use the power battery as a substitute.

Design Notes

The COTS Altimeter Board (CAB) is designed to simplify the wire harnessing for a variety of commercial altimeters used by the Illinois Space Society. It can support two completely independent altimeters and allows for quickly disconnecting external circuitry such as E-Matches, Screw Switches, and Batteries. This board is purely a wire harnessing board and introduces no complex student researched and developed electronics (SRAD).

The following altimeters are compatible in each altimeter slot.
Altimeter 0: StratoLoggerCF, EasyMega, Featherweight GPS Tracker
Altimeter 1: StratoLoggerCF TeleMega, EasyMega, Featherweight GPS Tracker

Contributors: Peter Giannetos

Illinois Space Society

Sheet: /
File: TARS-MK4.1-CAB.kicad_sch

Title: TARS MK4.1 COTS Altimeter Board

Size: A4 Date: 2023-05-19
KiCad E.D.A. eeschema (6.0.0)

Rev: A
Id: 1/1