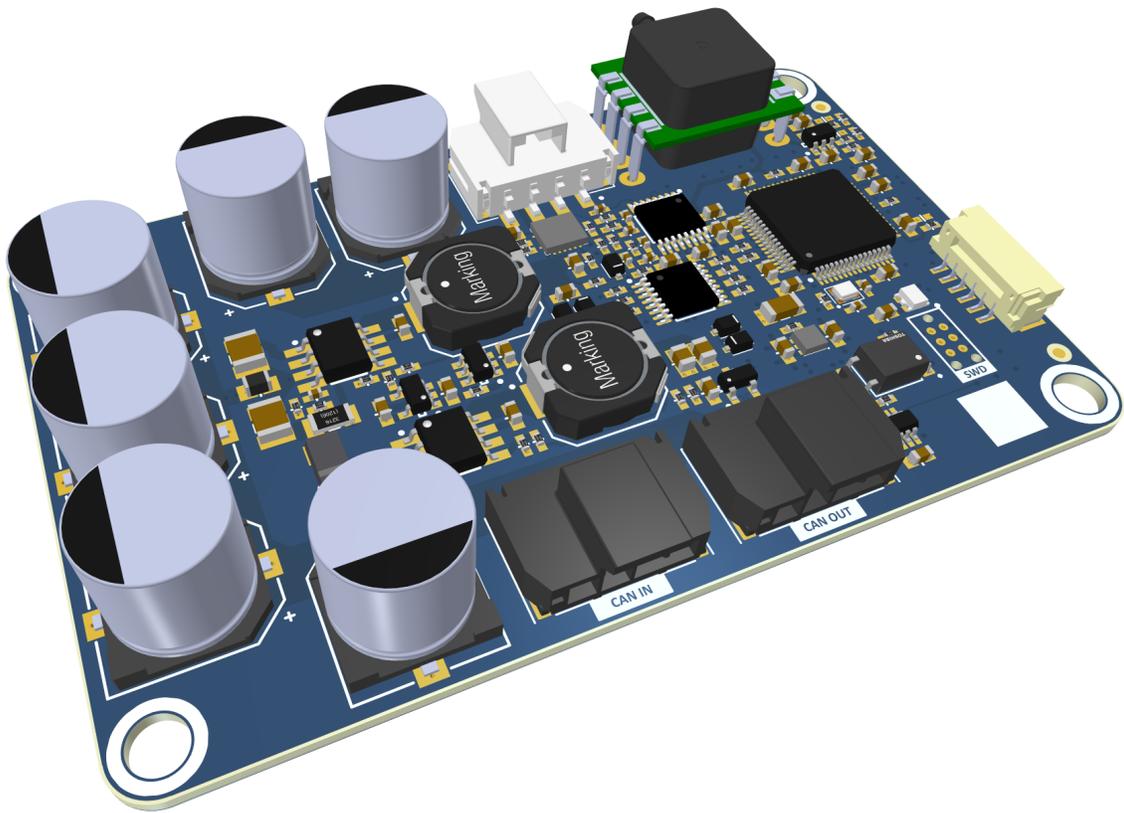

Airspeed with Heated Pitot Tube CAN Node v0.1



Contents

- I Abstract 3**

- II Technical Specification 3**
 - 1 On-board sensors & actuators 3**
 - 2 Interfaces 4**
 - 3 Additional Features 4**
 - 4 Electrical data 4**
 - 5 Pitot tube 5**
 - 6 Layout 6**
 - 7 Packing list 7**
 - 8 Mechanical 7**
 - 8.1 Dimensions 7
 - 9 Pictures 8**
 - 9.1 Top 8



Part I

Abstract

The Airspeed with Heated Pitot Tube board is a compact CAN-enabled module that integrates the heater interface (with integrated RTD measurement) and the DLVR differential pressure sensor, providing precise temperature control and airspeed measurements. Fully compatible with the DroneCAN protocol, it ensures reliable and efficient data communication for modern UAV systems. Heating control is implemented using controllable DC/DC buck converter to minimize EMI.

Part II

Technical Specification

1 On-board sensors & actuators

- **Differential pressure sensor** One of the following variants (specified at the time of order):

Part Number	Temp. (°C)	Pressure (inH ₂ O)	Max airspeed [m/s]
DLVR-L05D-E1BD-I-NI3N	-20 to 85	±5	45
DLVR-L05D-E1BD-C-NI3N	0 to 70	±5	45
DLVR-L10D-E1BD-I-NI3N	-20 to 85	±10	64
DLVR-L10D-E1BD-C-NI3N	0 to 70	±10	64
DLVR-L20D-E1BD-I-NI3N	-20 to 85	±20	90
DLVR-L20D-E1BD-C-NI3N	0 to 70	±20	90
DLVR-L30D-E1BD-I-NI3N	-20 to 85	±30	110
DLVR-L30D-E1BD-C-NI3N	0 to 70	±30	110

- **Heater controller**

- Various compatibility with RTD (NTC, PTC, PT)
(resistance from 1 Ω to 16k Ω)
- Low EMI power source for the heater (via a synchronous DC/DC controllable converter)

2 Interfaces

- **2x CAN 2.0B Interface:** Supports data rates up to 1 Mbps
- **Heater Interface:** Supports up to 8W heaters with built-in RTD

3 Additional Features

- Neopixel status LED

4 Electrical data

- 6-16S input voltage

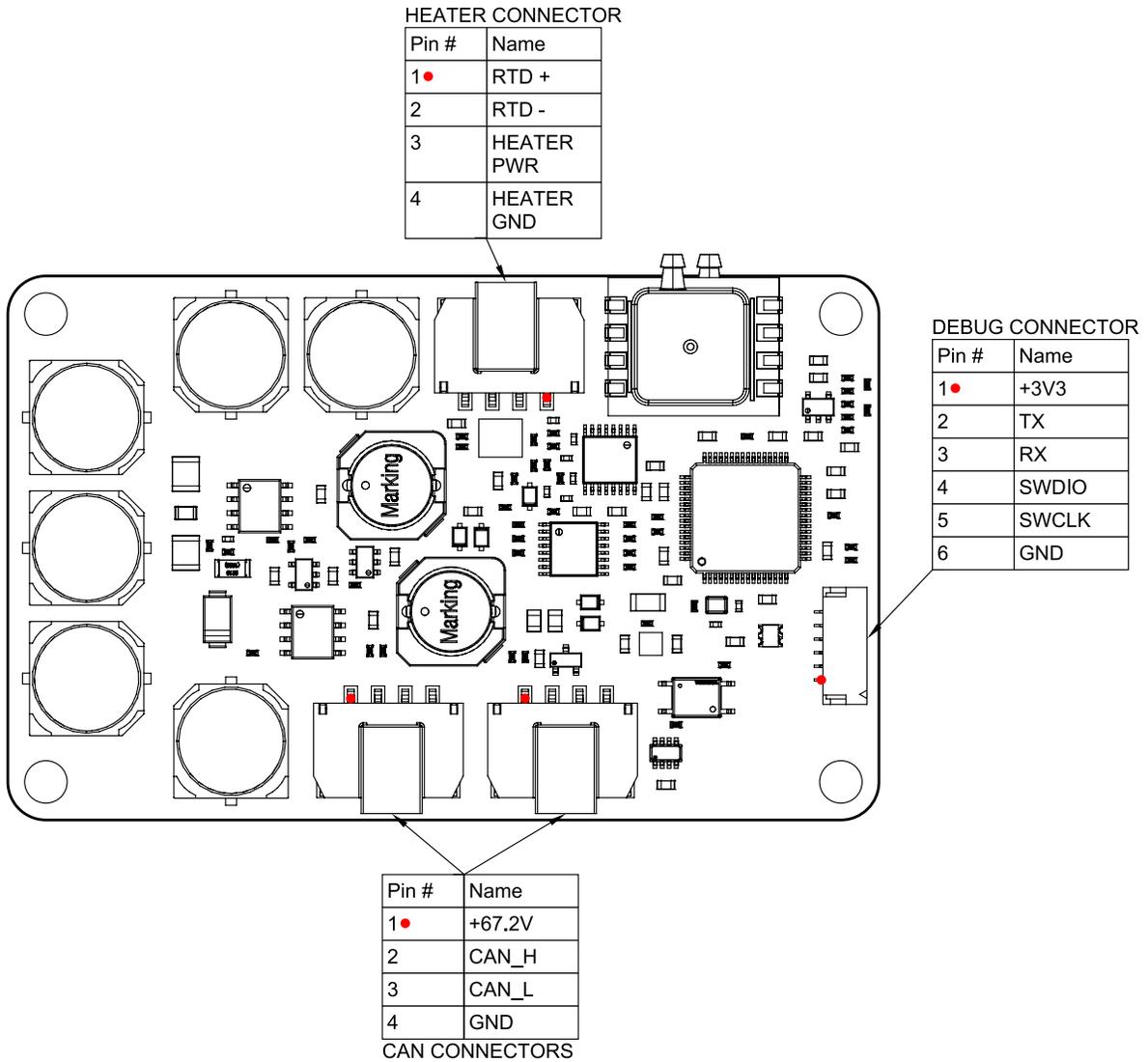
5 Pitot tube



Parameters:

- Thermistor: NTC 5k (NTCLE305E4502SB)
- Heater: 8W
- Diameter: 7mm
- Weight: 23g
- Length: 160mm

6 Layout



7 Packing list

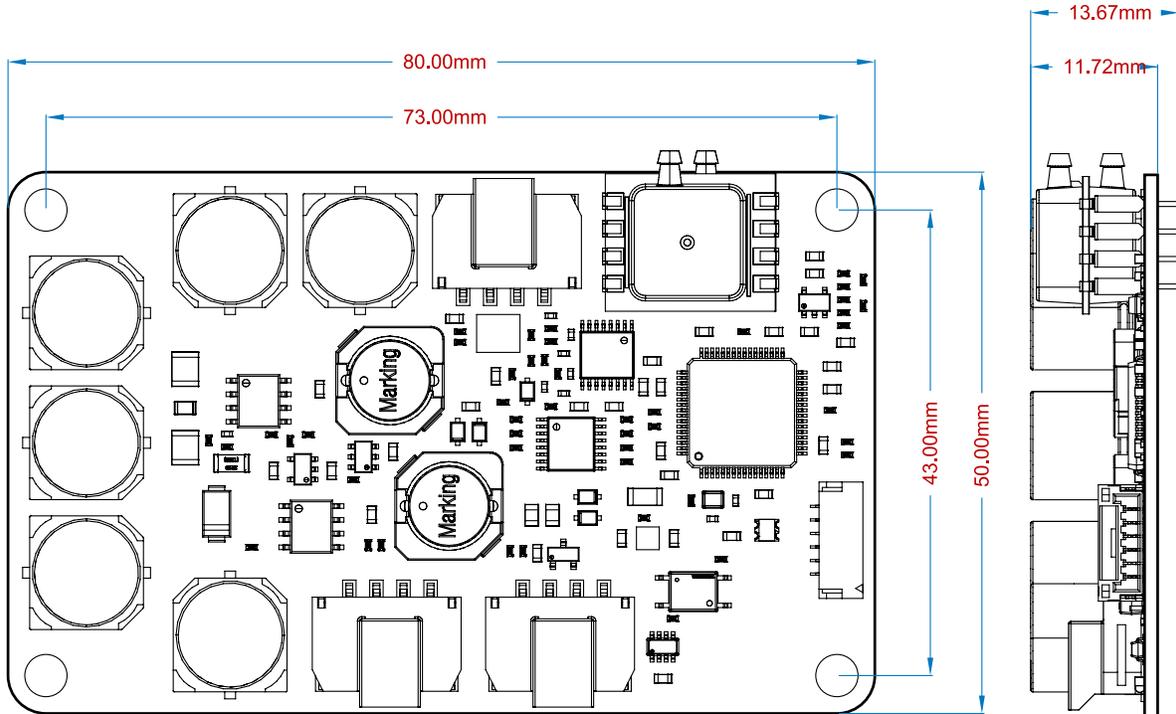
The module comes with the following accessories:

- Pitot tube
- 4x Vibration isolators
- 4x nylon M3x10 screws
- 1x Molex NanoFit connector with terminals (for connecting pitot tube)
- 2x Molex NanoFit connector with terminals (for connecting to CAN Bus)

8 Mechanical

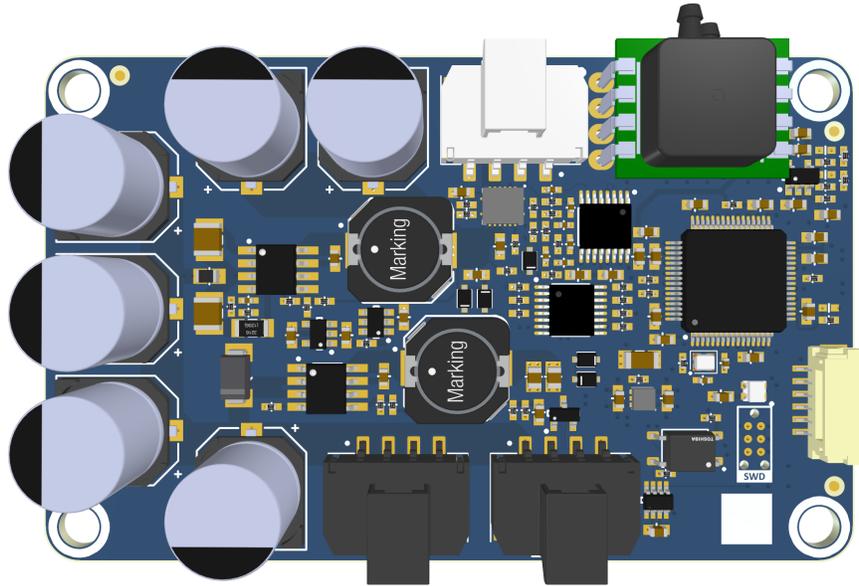
- Weight: 26g (w/o pitot tube and cables)

8.1 Dimensions



9 Pictures

9.1 Top



END OF SECTION