

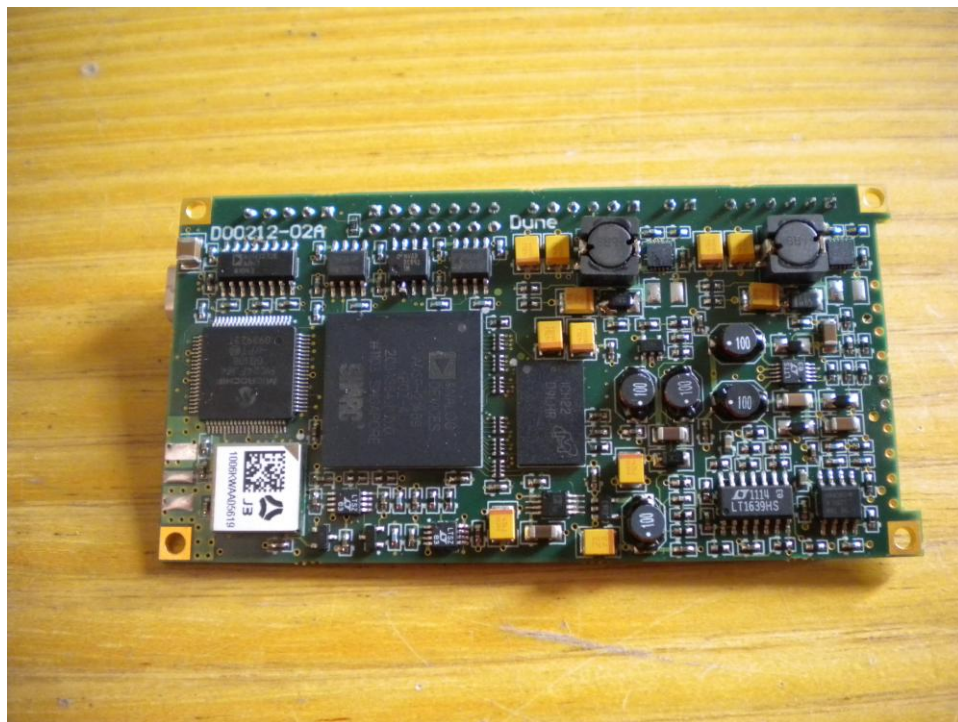
D00212100 - IMU ACQUISITION AND PROCESSING BOARD

The board is able to acquire data from several standard IMUs and from a GPS receiver and sends positioning information to a radio-modem.

Board features:

- Data from standard IMUs are acquired by RS-422 or USB ports,
- Internal GPS receiver is provided,
- Data can be transmitted through a radio-modem connected via RS-232,
- Internal acquisition and processing of cardiac waveforms,
- on board DSP (ADSP21469 Sharc) included; the processor speed is 450 MHz, it is able to compute a 1024 Point Complex FFT (Radix 4, with Reversal) in 20,44 μ s,
- the board contains the electric components to charge a lithium battery in order to power the board

DUNE is able to implement positioning algorithms on DSP to compute navigation data by using the IMU and GPS information.



IMU acquisition board