

## Overview

Astronautical Development LLC has developed antenna feed networks to fit the CubeSat mission profiles and radios available in the community. The range of product offerings extend from high to low power levels and from quad turnstile feed to di-pole configurations.

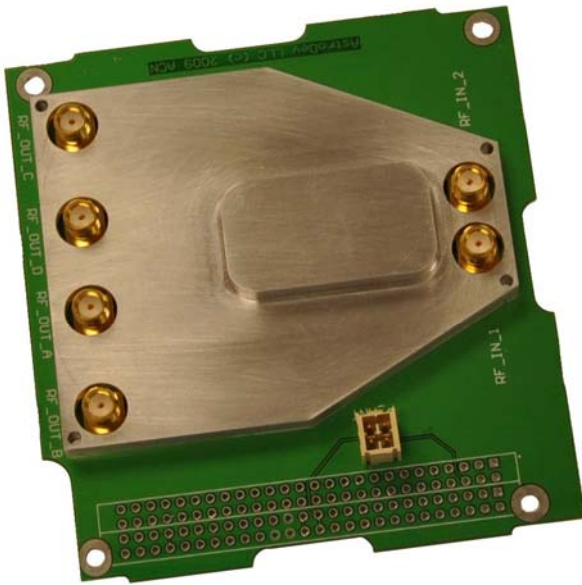


Figure 1—Quad Monopole Circular Polarized Antenna System with Dual Input on a CSK board.

## Features:

- **Frequencies:**
  - 400 – 500 MHz
- **Power Handling:** > 5 W continuous
- **Circularization**
  - RHCP or LHCP
- **Interfaces**
  - SMA or MCX
- **Insertion Loss**
  - 0.5 to <1.5 dB
- **Switching Solutions**
  - On-the-fly user selectable left or right polarization
  - **Input Voltages:**
    - 3.3 to 5V TTL selection
    - 5V power source
  - **Power usage during switch:**
    - Continuous: < 15 mW
    - Switching: < 400 mW for < 30 ms
- **Form factor:**
  - Stand alone board various forms
- **Operating Temperature:** -40 to +85 C
- **Flight Heritage**
- **Low Cost < \$2.5k**

For more information, contact:

[info@astrodev.com](mailto:info@astrodev.com)

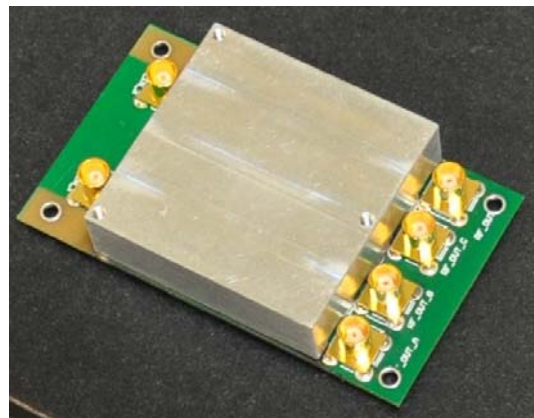
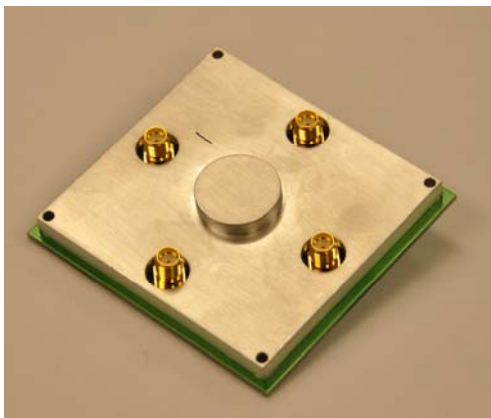


Figure 2—Miniaturized phasing boards for CubeSat custom integration.

## Overview

Astronautical Development LLC has developed antenna deployment sequencers to separate monopole antennas using one applied power source. The module is completely self contained and has programmable duration, sequence, and level through PWM.

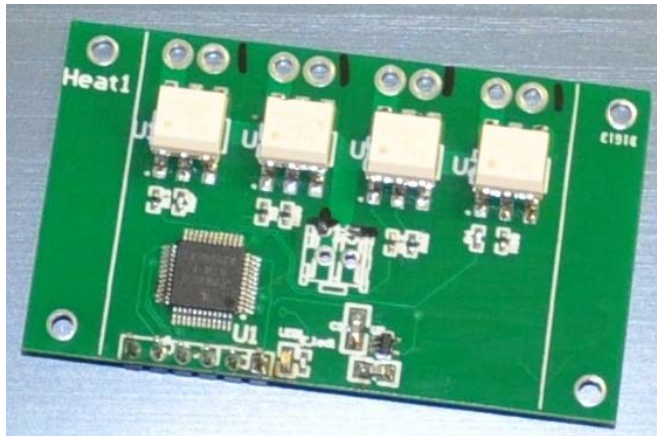


Figure 3—Quad Monopole cut sequencer.

## Features:

- **Integrated Unit**
- **Timer**
  - X seconds per cut
- **Sequencer**
- **One power input**
  - Up to 17V
- **Self Shutdown**
  - Active < 2mA
  - Shutdown < 1mA
  - Low quiescent draw
- **Quad Monopole**
  - Hookup only those used
- **Customizable**
  - Flexible CPLD basis
  
- **Low Cost < \$1k**

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