



Radar Altimeter Model 4504

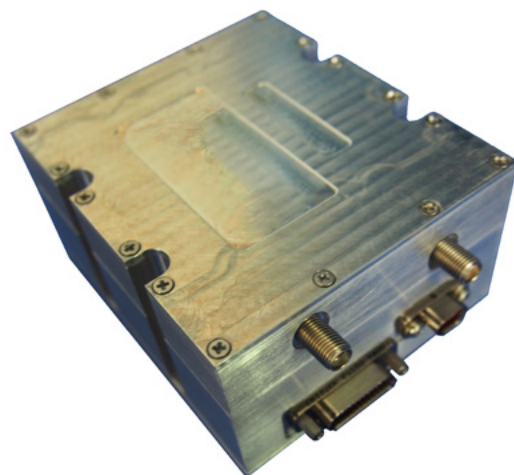
Configurable for unique applications with small SWaP

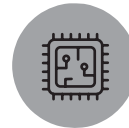
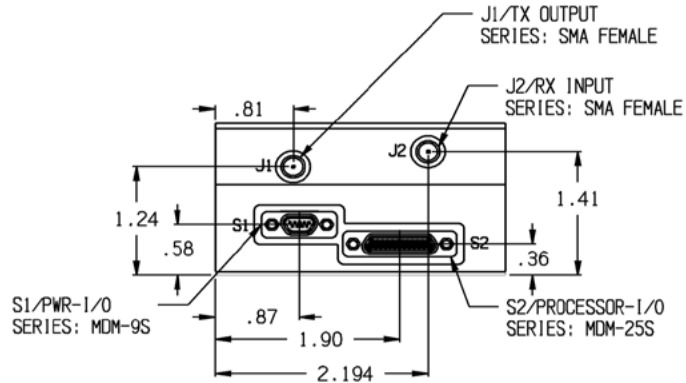
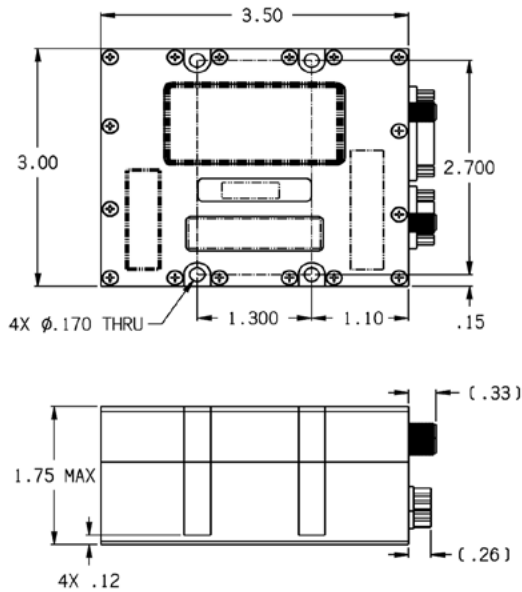
Features

- Digital Signal Processor Based
- Leading Edge Tracking
- FM/CW Waveform
- Spread Spectrum with Deviation >100 MHz
- Dynamic Adaptive Power Control (APC) Based on Measured Receiver Signal Strength
- Configurable maximum transmit power up to +26 dBm
- Doppler Immunity

Overview

The Ultra 4504 Radar Altimeter (RALT) is a low cost, all-weather system that meets the high performance requirements of both manned and unmanned vehicles. It does this in a small volume with low power consumption. The design is an extension of a production, flight proven, Ultra RALT for unmanned systems.





Specifications

- Altitude Range: 0 - 8,000 ft.
- Altitude Accuracy:
<900ft: +/- 1ft + 1% altitude
>900ft: +/- 10 ft
- Analog Accuracy: +/- 50 mV
- Track Rate: 2000 ft./sec.
- Frequency: 4200-4400 MHz
- Maximum Transmitter Output Power: +26 dBm typical
- Update Rate: 50 Hz
- Required Antenna Isolation For Maximum Altitude: 85 dB

Outputs

- Analog Output: 20 VDC max., programmable slope and offsets -5 VDC to +20 VDC, with programmable slopes and offsets
- Digital Output: RS-422, ARINC 429 Configuration I/F: RS-232 (not an altitude output)
- Out-of-Range Indicator: 5 VDC TTL
- Size (excluding connectors): 3.5" X 3.0" X 1.75" (88.9 mm X 76.2 mm X 44.5 mm)
- Weight: 1.2 lbs.
- EMI: MIL-STD-461E
- Environmental: MIL-STD-810F

Power, Mechanical, Environmental

- Power: 18-36 VDC, Ripple <3V pk-to-pk
- Reverse Polarity Protection included
- Power 9-15W DC Max, Maximum Altitude Configuration Dependent
- Temperature:
- 40°C to +71°C, Operating
- 55°C to +125°C, Storage
- Connectors:
SMA (F) for Tx & Rx Ports
9-Pin Micro-D for Power Port
25-Pin Micro-D for RS-422, Analog, and Discrete Outputs

Additional Features

- Built-In Self Test
- Configurable Analog and Digital Altitude Outputs
- User Configurable Options:
 - RS-422 Output Format
 - Maximum Altitude
 - Analog Scaling
 - Zero Offset
 - Maximum Tx Power
 - Redundant Unit Operation

Ultra reserves the right to vary these specifications without notice.

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