

RADAR ALTIMETER

MODEL 4502



SUPPLYING HIGH PERFORMANCE FLIGHT INSTRUMENTATION, RF/MICROWAVE ASSEMBLIES, POWER AMPLIFIERS, IFF AND DATA ACQUISITION SYSTEMS FOR SEVERE ENVIRONMENTS.

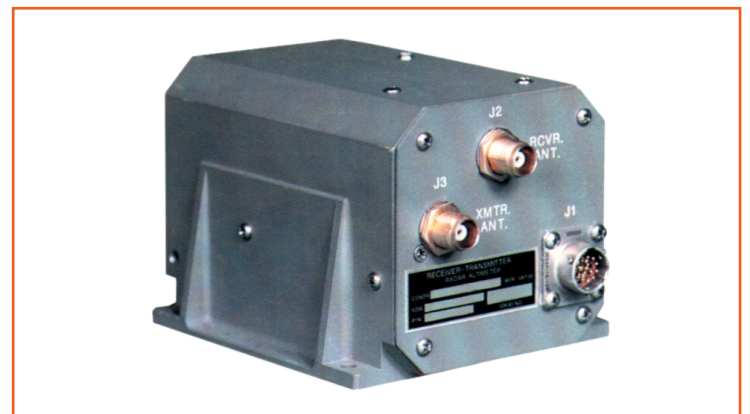
DESCRIPTION

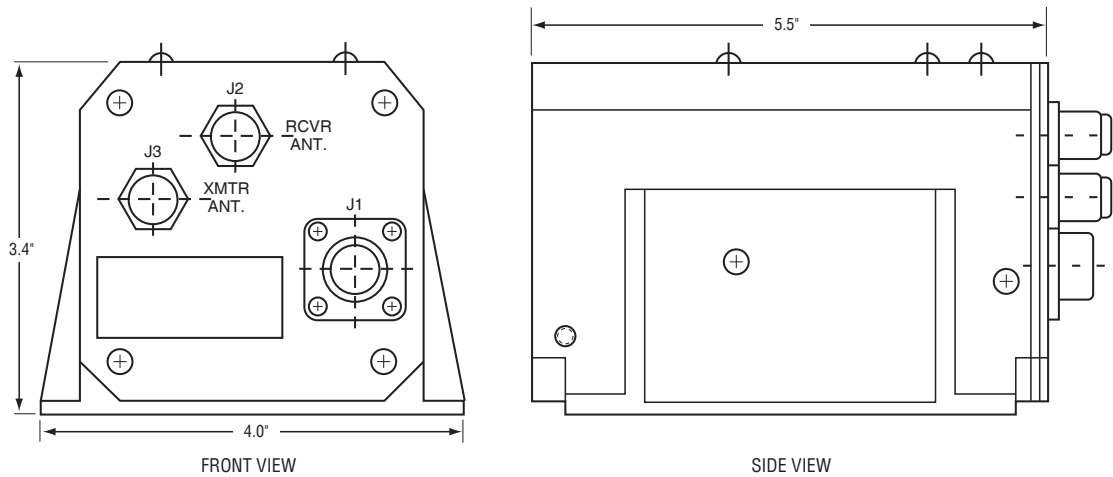
The Ultra Electronics Herley 4502 Altimeter receiver-transmitter uses modular construction and plug-in card assembly techniques to maximize altimeter production, testing, and maintenance capability; and to minimize obsolescence. The altimeter is divided into the following functional modules; the power supply, transmitter, receiver, tracker (range computer), and the front panel assembly.

The unit is designed for hard mounting. Cooling is accomplished by conduction, eliminating cooling air requirements. The design of the 4502 utilizes the latest in modern devices and circuitry to provide a reliable product with extremely long operating life.

FEATURES

- All-weather operation
- Immunity to doppler effect
- Warm-up 3 minutes
- Leading-edge tracking
- Zero altitude operation
- In-track indication





ELECTRICAL

- Frequency Range: 4.3 GHz, ± 15 MHz
- Impedance, Input/Output: 50 ohms
- Reverse Polarity Protection: Yes
- Input Voltage: 24 to 32 Vdc at 25 Watts maximum

PHYSICAL

- Size: 5.5 l x 4.0 w x 3.4 h inches (14.0 x 10.0 x 8.6 cms)
- Weight: 2.75 lbs. (1.25 kgms)
- Tx and Rx Connectors: TNC
- Power Connector: MS27335T-10A-13P or equivalent (Mating connector MS 27336T-10B-13S)

ENVIRONMENTAL

- Temperature, Operating: -40°C to $+65^{\circ}\text{C}$
- Temperature, Storage: -54°C to $+71^{\circ}\text{C}$
- Altitude: \emptyset to 2,000 feet
- Accuracy: ± 5 feet plus 5% of actual altitude.
- Vibration, Random: 6 g's rms
- Track Rate Capability: $\pm 2,000$ ft/s
- Environment: MIL-E-5400, Class II, and MIL-STD-810

RECEIVER

- Frequency: 4.3 GHz, ± 5 MHz.
- Sensitivity: Zero loop sensitivity, 78, ± 5 dB
- Output: Maximum loop sensitivity, >120 dB
- Search Rate: 3.1 Hz
- Tracking Indication: \emptyset or +28 Volts
- Self Test: Simulated 1000 feet, ± 100 feet

TRANSMITTER

- Frequency: 4.3 GHz, ± 15 MHz
- Power Output: 50 Watts peak, minimum
- Output Device: Triode oscillator
- Pulse Width: 65 nanoseconds ± 20 ns
- PRF: 7 kHz, nominal

OPTIONS

- Automatic out of range indicator: The altimeter will set the track indicator to a "no track" condition at an altitude of 1945 ± 50 feet or above

PRODUCT NUMBERS

- P/N 4502 - Altitude; \emptyset - 2,000 feet output voltage \emptyset to -10V



making a difference

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