



RADAR ALTIMETER

TRUE ALTITUDE. TRUE SAFETY.
ROBUST AND RELIABLE IN
DEMANDING ENVIRONMENTS.

Building on systems engineering and integration know-how, FreeFlight Systems effectively implements comprehensive, high-integrity avionics solutions. We are focused on the practical application of NextGen technology to real-world operational needs — OEM, retrofit, platform or infrastructure.

FreeFlight Systems is a community of respected innovators in technologies of positioning, state-sensing, air traffic management datalinks — including rule-compliant ADS-B systems, data and flight management. An international brand, FreeFlight Systems is a trusted partner as well as a direct-source provider through an established network of relationships.

3 GENERATIONS OF EXPERIENCE BEHIND NEXTGEN AVIONICS

NEXTGEN LEADER. INDUSTRY EXPERT. TRUSTED PARTNER.
SHAPE THE SKIES.



RADAR ALTIMETERS

FreeFlight Systems' certified radar altimeters work consistently in the harshest environments including rotorcraft low altitude hover and terrain transitions. Our radar altimeter systems integrate with popular compatible glass displays.

RA-4000/4500 & FRA-5500 RADAR ALTIMETERS

Model	RA-4000	RA-4500	FRA-5500
TSO-C87	•	•	•
ETSO-2C87	•	•	•
DO-160E	•	•	•
DO-178 Level B			•
DO-178B Level C	•	•	
RS-485/422	•	•	•
RS-232	•	•	•
ARINC 429		•	•

SPECIFICATIONS

Frequency	Modulated continuous wave at 4.3 GHz center frequency, 100 MHz sweep at 4.25 to 4.35 GHz
Altitude Range	-20 to 2,500 ft.
Altitude Accuracy	0 to 100 ft. \leq 3% 100 to 500 ft. \leq 3% 500 to 2,500 ft. \leq 5%
Update Rate	25 times per second
Self-Test	Power-on self-test and recurring built-in test
Antennas	Dual; response angles up to $\pm 20^\circ$ pitch, $\pm 30^\circ$ roll
Service Ceiling	50,000 ft.

PHYSICAL CHARACTERISTICS

Size	3.1" H 3.0" W 6.8" D
Weight	Unit: 1.9 lbs Antennas (2): 0.37 lbs
Power Requirements	20-36 VDC, 0.4 A max at 28 VDC
Operating Temperature	-55°C to +70°C

For additional product information and specifications, please contact our Sales Team at +1.254.662.0000

FreeFlight Systems modern radar altimeters are backed by more than 50 years of experience, and have a proven track record as a reliable solution in the most challenging and critical segments of flight. The TSO and ETSO-approved systems are extensively deployed worldwide in helicopter fleets, including some of the largest HEMS operations worldwide.

Designed for helicopter and seaplane operations, our radar altimeters provide precise AGL information from 2,500 feet to ground level.



OPTIONAL ACCESSORY FTG-410 TONE GENERATOR

The FTG-410 gives pilots important audio alerts when operating at low altitude, at nighttime, over water, or rough terrain.

- Audio alerting enhancement to call attention to critical altitudes when operating in hazardous environments
- Compatible with existing avionics and audio systems
- Two-channel system provides maximum value and flexibility in installation

