



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 meet the Helicopter Safety Rule for radar altimeter equipage and integrate with 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, $\pm 30^\circ$
Service Ceiling	50,000 ft.

PHYSICAL CHARACTERISTICS

Power Requirements	20-36 VDC, 0.4 A max at 28 VDC
Operating Temperature	-55°C to +70°C

All RADALT systems weigh in at less than 2.5 pounds - weight includes antennas

RAD-40 DISPLAY

SPECIFICATIONS

Model	RAD-40
Decision Height Selection	10 ft. increments up to 200 ft. 50 ft. increments from 200 ft. to 950 ft.
Self-test	Lights all "8's" for LEDs and activates the DH LED
DH Alert	Internal DH LED and external discrete output
Service Ceiling	50,000 ft.

CERTIFICATIONS

System	TSO-C87
Environmental	DO-160F
Software Assurance	DO-178B Level C

PHYSICAL CHARACTERISTICS

Size	3.5" W 4.6" D 1.3" H
Weight	0.6 lbs
Operating Temperature	-20°C to +55°C
Power Requirements	9-36 VDC, 0.5 A at 28 VDC

FTG-410 TONE GENERATOR

The FTG-410 gives pilots important audio alerts when operating at low altitude, at night, over water or rough terrain when there are few visual cues to the surface, landscape or flight path.

FreeFlight Systems has over 50 years experience in radar altimetry. Designed for helicopter and seaplane operations, our radar altimeters provide precise AGL information from 2,500 feet to ground level. Our panel mount RAD-40 display offers a bright LED readout of critical AGL information, and comes available as a standard or night vision goggle (NVG) capable display.

For additional product information and specifications, please contact our Sales Team at +1.254.622.0000

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