



RANGR 1090 ADS-B

HIGH-PERFORMANCE. MODULAR. COMPACT.
THE FOUNDATION OF A COMPREHENSIVE,
LONG-TERM ADS-B SOLUTION

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.



RANGR 1090 ADS-B TRANSPONDER

For aircraft operating above 18,000 feet or outside the United States, the FreeFlight RANGR 1090 ADSB Out transponder is a high-performance, modular 1090ES Mode S transponder that is ADS-B Out compliant when paired with a certified SBAS/GNSS solution.

1090 ADS-B TRANSPONDER

SPECIFICATIONS

| | |
|-----------------------|---|
| Model | FDL-1090-TX |
| Capabilities | TSO Certified for Mode S/ES ADS-B Out compliance |
| Link Frequency | 1090 MHz |

CERTIFICATIONS

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|-------------------------|--|
| System | TSO-C112c (Class 1) TSO-C166b (Class B1S) ETSO-C112c (Class 1) ETSO-C112a (Class B0) FAA-PMA |
| Design Assurance | DO-1788 Level C (ED-128) DO-254 Level C |
| Service Ceiling | 30,000 ft. |

PHYSICAL CHARACTERISTICS

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|---------------|----------------------------|
| Size | 1.9" H 2.6" W 6.2" D |
| Weight | Less than 1 pound |

TC1090 CONTROL HEAD

| | |
|----------------------------|--|
| TSO Compliance | TSO-C88b |
| ETSO Compliance | ETSO-88a |
| Software | DO-178B Level B |
| Physical Dimensions | 2.5" W 2.0" D 1.8" H |
| Panel cut-out | Standard 2.25 inch (round adapters provided) |
| Weight | 0.1 lbs. (0.05 kg) |
| Altitude | 35,000 ft. |
| Power Requirements | 5.5 - 10 VDC, provided by FDL-1090 unit |

The RANGR 1090-TX is one of the smallest Mode S transponders suited for GA aircraft; the system weighs less than one pound including the compact panel-mounted controller and built-in altitude encoder. The controller's intuitive controls feature positive control knobs and push buttons for squawk codes, IDENT, VFR and for viewing ADS-B position data on the sunlight-readable, backlit LED display.

Starting at \$4,495, the RANGR 1090-TX is available alone or can be configured with FreeFlight Systems' certified 1201 WAAS/GPS for complete ADS-B Out compliance. This remote transponder is dual-install capable, and may be mounted anywhere within the airframe.

To enable ADS-B In weather and traffic, the RANGR 1090-TX can be expanded with the FreeFlight TSO-certified RANGR RX datalink receiver, which is compatible with MFDs and tablets for display.

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



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Made in the U.S.A.

