



**YOUR NEXTGEN
AVIONICS LEADER**

RANGR FDL-1090-TX

**HIGH-PERFORMANCE 1090ES ADS-B OUT
SOLUTION FOR AIRCRAFT OPERATING
AT FL180 AND ABOVE PLUS EXPANDABILITY
AND LONG-TERM VALUE**

- **New, compact 1090ES Mode S transponder**
- **Pairs with a WAAS/GPS for rule-compliant ADS-B Out equipage**
- **Modular, expandable design to add ADS-B In datalink services**
- **The foundation of a comprehensive ADS-B solution**
- **Long-term value and protection of your avionics investment**

The FreeFlight Systems FDL-1090-TX is a new, compact Mode S 1090MHz Extended Squitter (1090ES) transponder and the foundation of a comprehensive ADS-B solution for general aviation aircraft operating at FL180 and above.

The system is approved for ADS-B Out in Class A airspace when paired with a certified WAAS/GPS receiver as the high-integrity position-velocity-time & integrity (PVT&I) data source. The FreeFlight Systems model 1201 WAAS/GPS is certified as a PVT&I data source for the FDL-1090-TX and is available in an optional, pre-configured bundle with the transponder and a GPS antenna.

The modular system can be expanded with a TSO-approved FreeFlight Systems RANGR FDL-978-RX datalink receiver to



RANGR FDL-1090-TX
(front display view and
hardware unit)

show subscription-free ADS-B In weather and traffic on a compatible display.

The RANGR FDL-1090-TX is designed for straightforward installation. Featuring the smallest Mode S transponder for GA aircraft, the compact system weighs less than 1 pound. The system includes a compact panel-mounted controller with a built-in altitude encoder that fits into a 2.25-inch opening for maximum flexibility in placement. The controller is simple to operate with positive-control knobs and push buttons for entering squawk codes, for IDENT, for reset to VFR and for viewing ADS-B position data on the sunlight-readable, backlit LCD display. The remote transponder module may be mounted anywhere within the airframe.

Combining ADS-B Out compliance with expandability, the FDL-1090-TX delivers immediate and long-term value and protects your avionics investment.

RANGR FDL-1090TX

SPECIFICATIONS

Type:	Transponder Class 1 Mode S level 2els ADS-B Class B1S
Nominal Transmitter Power:	250W at connector
Certification:	ETSO C88A, C112C, C166A and TSO C88b, C112c, C166b, approved for IFR and VFR flight
Dynamics:	ED-73C, DO-160F, DO-178B Level B, DO-254 Level C, DO-260B, DO-181D
Cooling:	Ambient air

PHYSICAL CHARACTERISTICS

Size	
Controller:	2.48" W 2.13" D 1.73" H
Transponder:	2.61" W 6.23" D 1.89" H
Weight	0.97 lbs. (.440 kg)
Input Voltage (Steady State)	9-33 V
Input Current (Steady State)	
Idle	0.08A at 28V/0.15A at 14V
Active	0.17A at 28V and 0.34A at 14V

OPERATING TEMPERATURE

Transponder	-40°C to +70°C
Controller	-25°C to +70°C

For additional product information and specifications, please visit our website www.freeflightsystems.com



3700 Interstate 35 South
Waco, Texas 76706-3756 USA
US: 800.487.4662
International: +1.254.662.0000
FREEFLIGHTSYSTEMS.COM