

Overview

echoESX is a Mode S Class 1 transponder designed to meet the 2020 requirements of 14 CFR 91.225. Ease of installation is a main design criteria to make it the most affordable ADS-B solution for Unmanned systems, Experimental and LSA aircraft.

This system is designed to interface directly to the most popular EFIS systems including Dynon Skyview, GRT and MGL Avionics.



Features

- Mode S transponder.
- ADS-B 1090ES DF17 transmitter.
- Meets the performance requirements of TSO-C166b Class B1S.
- Meets the ADS-B Out equipment performance requirements of 14 CFR 91.227.
- Meets the minimum performance requirements of the following RTCA specifications:
 - DO-181E Level 2els Class 1
 - DO-260B Class B1S
- DO-160G environmental Cat B2.
- TMAP compatible CONTROL serial input compatible with popular EFIS and Transponder Control heads.
- SMA 1030/1090MHz Antenna Connector.
- US Patents Pending.

Technical Specifications

Specification	Value
Input Power	11-33V 2W Ave On/Alt. 0.1W Standby
Size	45x70x17mm
Weight	75grams
SIL/SDA	2/3
Operating Temp	-45 to 80°C
Transponder	
MTL 1030MHz Dynamic Range	-81dBm -79 to 0dBm
1090 Transmit Power	250W Nominal
Interfaces	
RS232 TMAP	38400 810

Regulatory

- FAA transmit license - manned aircraft and unmanned aircraft operating above 500ft AGL.
- FCC 47CFR part 87 ID=2AFFTP200S

Compatible with these common EFIS:



and more...

Electrical Specification

Host Interface

Pin	Type	Physical	Protocol
1	Ground		
2	NC	No Connection	
3	Aircraft Power	11-33V	
4	COM1 TX	RS232/485 38400bps	TMAP
5	COM1 RX	RS232/485 38400bps	TMAP
6	COM2 RX	RS232	NMEA/ADSB+

Mating Connector: Molex 0436450600, Pins: 0462350001

Indicators

LED	ON	FLASHING
GREEN	Powered	Receiving Interrogation
RED	FAULT	Reply / Transmit

Mechanical Specification

