

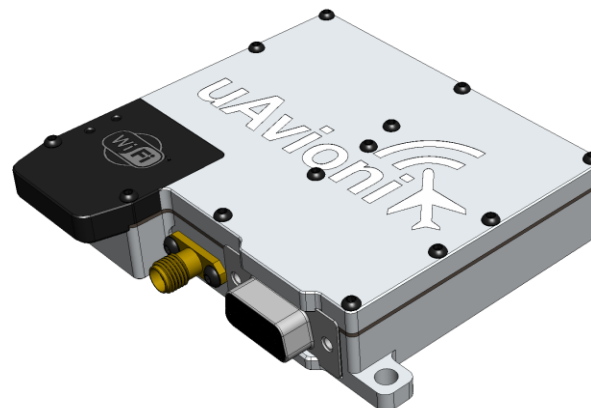
Overview

1090 MHz ADS-B “Out” enables aircraft to operate at any altitude, in airspace around the globe. echoESX integrates Mode S Extended Squitter (1090ES) transponder, ADS-B “In”, and AHRS functionality in a single unit.

Combined with the skyFYX WAAS GPS ‘system in antenna’, echoESX provides a one box, one swap solution to meeting ADS-B requirements with minimal expense, downtime and disruption.

echoESX provides the full picture, receiving on both 978 and 1090MHz for access to ADS-B “In” traffic and subscription-free weather. A high performance AHRS provides attitude information to compatible displays.

Wirelessly stream traffic, weather, GPS and backup attitude to mobile EFB applications.



Features

Transponder

- Mode S Class 1 Level 2els Transponder
- 200W 1090ES ADS-B transmitter.
- Dual-Link receiver detects ADS-B equipped aircraft on 1090MHz and 978MHz with over 100 statute mile radius in real time
- Internal, high performance AHRS
- Low SWaP
- SMA 978/1090MHz Antenna Connector
- 15p D-Sub interface connector

Wi-Fi

- Integrated 802.11b/g/n Wi-Fi interface
- Android / iOS compatible
- Reports Weather, Traffic, GPS and backup attitude

AHRS

- Internal 9-axis AHRS sensor

Interfaces

- GDL 90/TMAP control serial input compatible with popular EFIS
- GDL 90 ownship, altitude, traffic, weather and AHRS packets
- GPS
- External serial altitude encoder

Options

- Serial Altitude encoder
- skyFYX WAAS GPS ‘system in an antenna’
- Transponder control head

Technical Specifications

Specification	Value
Dimensions	95x80.3x18.73mm
Voltage Range	11-33 V (2 W average)
Transmit Power	200 W minimum
Temperature	-40°C to +70°C
Operating Altitude	to 55,000 ft (16,800 M)
Weight	120 grams
Cooling Input	Not required
Environmental	DO-160G
Software	DO-178 Level C
Hardware	DO-254 Level C
Mode S	DO-181E Class 1 Level 2els
ADS-B	DO-260B Class A1S DO-282B Class A1S (RX only)
Mount Type	Remote
AHRS	Internal
Interfaces	
RS232/485 Serial	
EFIS	TMAP, GDL90, STX165, GTX
GPS	NMEA, ADSB+
BARO	GDL90, ICARUS, SHADIN Z, SHADIN RMS, APOLLO
TRAFFIC	GDL90
Wi-Fi	
WX, Traffic, AHRS	GDL90

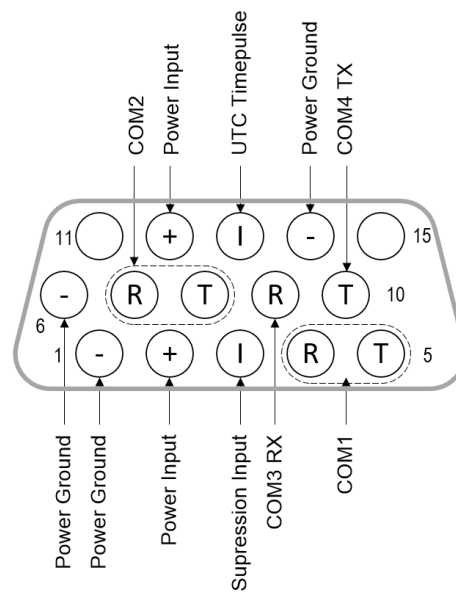
Electrical Specification

Host Interface

Pin	Type	Physical	Protocol
1	GROUND		
2	Aircraft Power	11-33V	
3	Suppression	Input	
4	COM1 RX (B) (EFIS)	RS232 / RS485 1200-115200bps	TMAP, GDL90, STX165, GTX
5	COM1 TX (A) (EFIS)	RS232 / RS485 1200-115200bps	TMAP, GDL90, STX165, GTX
6	GROUND		
7	COM2 RX (GPS)	RS232 1200-115200bps	NMEA, ADSB+
8	COM2 TX	RS232 1200-115200bps	
9	COM3 RX (BARO)	RS232 1200-115200bps	GDL90, ICARUS, SHADIN Z, SHADIN RMS, APOLLO
10	COM4 TX (WX, TRAFFIC, AHRS)	RS232 38400-921600bps	GDL90
11			
12	Aircraft Power	11-33V	
13	UTC	Input	Time Pulse
14	GROUND		
15			

Indicators

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



Mechanical Specification

