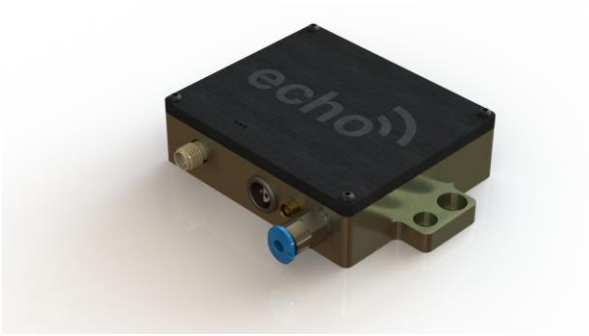
uAvionix

ECHO ATT-20B ADS-B Transceiver

CAP 1391
Electronic Conspicuity Device

Overview

echo ATT-20B is the world's smallest, lightest and most affordable ADS-B transceiver. At just 45 grams, it implements 'See, BE SEEN, and Avoid' for aircraft in the national airspace. ADS-B-In and Out on 1090E. It exceeds the minimum capability required for a CAP 1391 basic ECD. When coupled with an Electronic Flightbag Application it provides the pilot with a comprehensive view of surrounding ADS-B equipped traffic.



echo

Features

- Transmits ADS-B on 1090ES.
- Reports aircraft threats within a 100 statute mile radius in real time.
- Reports threats from commercial aircraft in a programmable spherical radius.
- Transmits ADS-B on 1090MHz.
    - Meets MOPS DO-260B Class A0.
- Integrated GNSS SBAS Navigation.
    - Meets TSO-C199 Class B.
- SMA Antenna Connector.
- Barometer for Pressure Altitude
- GDL90 1090ES traffic reports over WiFi.
- US Patents Pending.

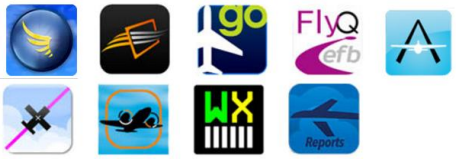
Regulatory

- CAP 1391 Basic ECD.
- AMC 1931-4.3 Spurious Emission Radiation.

Technical Specifications

Specification	Value
Input Power	6-14V 1W Ave. 30W Peak (400us)
Size	25x39x12mm
Weight	45grams
SDA	0
SIL	0
Receiver	
MTL 1090MHz	-88dBm
Dynamic Range	-79 to 0dBm
Supported Interfaces	
WiFi	GDL90
Transmit	
1090MHz	20W Nominal
Options	
• 6000mAHr Rechargeable Battery Pack • Dipole Antenna	

Compatible GDL90 Applications



Quality Standards and Procedures

Designed and assembled in the USA, HALT and HASS tested, IPC-610 class II soldering, production functional testing. Software D.A. to DO-178B, Hardware D.A. to DO-252 Class C.

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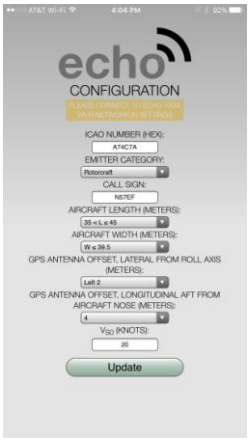
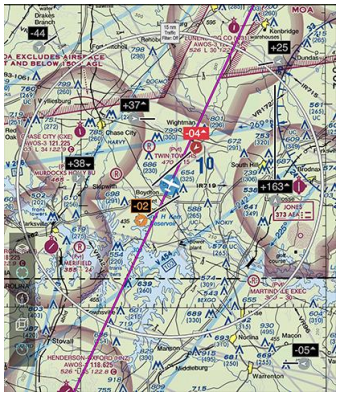
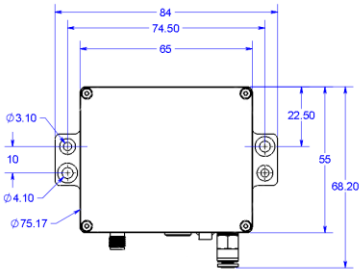
IOS/Android Configuration App

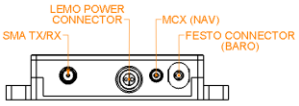


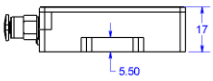
Typical IOS Electronic Aviation App



Mechanical Specification







Any antenna certified to TSO-C66, TSO-C74, TSO-C112 with a peak gain of 4 dBi or less, a omni-directional radiation pattern, and a VSWR of 1.8 or less at 978MHz is approved for use 20gr25with this device and will ensure conformance to all applicable standards for RF emissions. Ensure that the polarization of the antenna is as near vertical as possible.

Modifications and use outside of intended scope

This device has been design and tested to conform to all applicable standards in the original form and when configured with the components shipped with the device. It's not permissible to modify the device, use the device for any use outside of the intended scope, or use the device with any antenna other than the one shipped with the device.

Important Pilot Advisory Note Regarding Safety of Radio Frequency Energy

Safe use of this device requires care as to the placement of the antenna. Place the antenna at least 4cm away from any part of your body or that of other cabin occupants. To stop all RF emissions, remove power from the equipment. Only handle the antenna when power is disconnected. Advise your passenger(s) to avoid contact with the antenna while power is applied to the equipment. Retain these instructions with your maintenance logs/files and for future reference.

FCC RF Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits (Table 1 of 47Pt1 (i) 1.1310) set forth for a Public/Uncontrolled environment.

Mode-S or ATCRBS

If the aircraft has an operating Mode-S transponder or ATCRBS beacon, the Transceiver must be deactivated.

Proximity to other equipment

Mount the Transceiver so that is does not compromise the operation of any other proximate communication or navigation antenna or system.

Altimeter Cross Check

The reported altitude must be cross-checked against the aircraft's altimeter during pre-flight.

Harmful Interference

It is the responsibility of the pilot to ensure that the Transceiver causes no harmful interference to other on-board equipment and systems.

Configurable Options

Accessing or altering configurable options not intended to operated may cause pilot distraction.

See and Avoid

This Transceiver is intended to be an aid to 'see and avoid'. Maneuvers to regain adequate separation should not be based on alerts issued by this device alone.

Approvals

Approvals do not cover adaptations to the aircraft necessary to accommodate ancillary equipment such as power provisions, mounting devices or external antennas, such items must still be approved under existing minor modification/change processes applicable to the aircraft.

Warning: This transceiver is to be used to improve pilot situational awareness only and as a navigational aid. It is not intended for use in IFR flight conditions. uAvionix is not responsible for the transceiver's end use and will not be held liable for any events occurring from its use.