



# EQUIP YOUR AIRCRAFT WITH RELIABILITY

## MXS MODE 5 TRANSPONDER

### CHALLENGE

For air missions that require maximum efficiency to support increased payload, SWAP (size, weight, power) is everything! Many certified transponders in the market today are expensive, heavy, and require more power. To increase mission capability, reduce operation costs, and to not compromise on safety, a low SWAP certified solution must be in place. Expanding our airspace to include UAVs for civil and commercial operations can provide valuable solutions for a better more efficient service to communities around the world; however, incorporating drones into the national airspace system is a complex and challenging task due to a range of factors, including safety concerns, regulation and policy, technology limitations, public perception, and cybersecurity. Addressing these issues will require coordinated effort between government agencies, industry stakeholders, and the public for future beyond visual line of site operations.

As Air Traffic Control solutions evolve to support growing numbers of aircraft, both crewed and uncrewed, employed systems must have a clear path to upgrade for new functionality such as ACAS X-based collision avoidance.

### EXPECTED IMPACTS

Using UAVs in tandem with crewed aircraft can help save lives, improve response times, and increase situational awareness in critical situations to help solve for current global impacts:

- Search and rescue
- Surveillance and reconnaissance
- Disaster response
- Communication and coordination
- Delivery of supplies
- Transport of people and product

### SOLUTION | MXS MODE S TRANSPONDER

Uncertified ADS-B receivers have been shown to track as few as 30% of actual airborne traffic during periods of congestion. The MXS meets the rigorous DO-260B ADS-B specifications to assure the highest level of safety available. The MXS is the first FAA-certified TSO/ETSO Authorized small transponder to have integrated ADS-B in and out and is the first small, certified ADS-B receiver in the world. This miniature transponder provides Modes A, C, S and 1090 MHz ADS-B in/out for worldwide rule compliance, making it suitable for use globally by both crewed and uncrewed systems.

With ADS-B in and out, the MXS can be used in tandem with crewed and uncrewed aircraft increasing situational awareness, enabling safer skies for joint operations.

The transponder includes user-friendly command and control software, which features a built-in traffic display to provide situational awareness, or it can be effortlessly integrated with open-source or custom autopilot systems. Given its compact size and low power consumption, the MXS is an ideal transponder to enhance aircraft visibility and safety, at a low cost.

### The MXS Offers:

- Micro-SWaP
- Full diversity (top and bottom antenna capable)
- 1090 MHz ADS-B In and Out
- Flexible I/O - RS232, RS422, ethernet
- One box solution including ADS-B In/Out

### RESULTS:

- Full-power, certified functionality in a minimal SWaP transponder.
- ADS-B in/out, in one micro-box.
- Open-source solutions, plug and play within your current technology stack! .

### NEXT STEPS

Our team can assist you with proven situational awareness solutions. We are a fast, efficient, cost-effective solution, with 10+ years' experience serving military and commercial OEMs and operators worldwide for no-fail missions.

