



# XS-950

## The CNS/ATM Transponder

**ICAO Level 4 (COMM-A/B/C/D)  
data link transponder**

**ADS-B 1090ES extended  
squitter function**

**Upgrade to ICAO Level 5 via  
software only**

**ARINC 718A compliant**

**Elementary & enhanced Mode S  
surveillance compliant**

**Compatible with all ARINC 735A/735  
TCAS II systems**

**Maximum reliability with built-in  
test & self-test capabilities**

**AC or DC power options**

**Proven, leading-edge technology**

**Ready for future requirements**

The XS-950 Air Transport Data Link (ATDL) Mode S transponder is a full-feature system combining flawless implementation of all currently defined Mode S functions with unparalleled capability for future growth.

Over 4,000 XS-950 Mode S transponders have been delivered to more than 100 operators worldwide since the product debuted in 1996. Most Air Transport OEMs offer the XS-950, including Airbus, Boeing, Antonov, Ilyushin, and Tupolev. Airline industry leaders such as British Airways, Crossair, Federal Express, Iberia, KLM, Northwest Airlines, Qantas, Saudia, SWISS Airlines, and UPS have selected XS-950 as their transponder system of choice.

Our Mode S transponder is the industry's only ICAO Level IV transponder, capable of both uplink and downlink extended length messaging (COMM-C/D). The XS-950 meets or exceeds the latest requirements of ICAO Standards and Recommended Practices (SARPs) Annex 10 and RTCA DO-181C Minimum Operational Performance Standards (MOPS) for Mode S equipment and ARINC 718A Mode S characteristics.

The XS-950 has all of the required functionality for ICAO ACAS II mandate compliance, European Elementary and Enhanced Mode S Surveillance Downlink of Aircraft Parameters (DAPs), and ADS-B 1090ES extended squitter, as currently defined in the Aeronautical Information Circulars (AICs) and ICAO SARPs.

The XS-950 Mode S transponder has been designed for reliable performance and ease of maintenance. Highly Accelerated Life Testing (HALT) was performed on all engineering models of the XS-950. Each production XS-950 unit is subjected to Highly Accelerated Stress Screening (HASS) before being shipped to customers to ensure the highest product quality and to prevent failures from ever reaching the end user.

High reliability of our Mode S transponder greatly enhances the overall TCAS system reliability by reducing Mode S transponder-induced TCAS no-fault-found failures. Upgrades to the XS-950 are performed through on-board software loads, providing operators with significant cost savings and scheduling flexibility.

The XS-950 Mode S Transponder is easily upgradeable for tomorrow's technology requirements. The rigorous design of our system allows major functionality upgrades, such as ICAO Level V datalink or pending U.S. transponder security modifications (also known as the Hijack Mode), with software-only changes.

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This technical data and software is considered as Technology Software Publicly Available (TSPA) as defined in Export Administration Regulations (EAR) Part 734.7-11.

## System Specifications

Part Number

7517800-1000x (AC version) or  
7517800-5500x (DC version)

Physical Size

4 MCU

Weight

11.5 lbs

Mounting

ARINC 600 4 MCU Mount

Cooling

ARINC 600

## Certification

Environmental Specifications

DO-160C

TSO/JTSO

C112/2C112

Software

DO-178B Level B

Transponder Data Link Capability

ICAO Level 4 (COMM-A/B/C/D)

ADS-B Capability (part no. -X003/4/5)

1090ES Extended

Squitter per RTCA DO-260 MOPS for 1090

ADS-B Equipment

Operating Altitude

Sea level to 70,000 feet

Operating Temperature

-55 to 70 degrees C

Storage Temperature

-55 to 85 degrees C

Power

115VAC, 400Hz or 28 VDC

Power Consumption

40 Watts (standby), 85 Watts (maximum)

Number of Antenna Ports

2 (diversity)

## Interfaces

Controller

Low speed ARINC 429

TCAS II

High speed ARINC 429

Airborne Data Link Processor (ADLP)

High speed ARINC 429

Altimeter

ARINC 429/575 (digital air data),

ARINC 407 (synchro), Gilham 11-wire discrete

Flight Identifier

Low speed ARINC 429

Maintenance Computer (Airbus & Boeing)

Low speed ARINC 429

Portable Data Loader

ARINC 615

## Aviation Communication & Surveillance Systems

ACSS, an L-3 Communications & Thales Company, is a leader in safety avionics systems. ACSS products include the TCAS 2000 and TCAS 1500 traffic alert and collision avoidance systems, a family of Mode S transponders, the T<sup>2</sup>CAS™, a combined traffic and terrain collision avoidance system, and MASS™, an enhanced TCAS system for military operations. More than 9,000 units of ACSS's TCAS products are operating in commercial, corporate and military aircraft.

## REGIONAL, BUSINESS & MILITARY CUSTOMERS

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## AIR TRANSPORT CUSTOMERS

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## WORLDWIDE CUSTOMER SERVICE & SUPPORT

ACSS products are based on proven technology to provide you exceptionally high reliability and simplified maintenance. Support for engineering, logistics, commercial and repair support are available through our worldwide network of Customer Service Managers and Support Centers.

Customer Services are provided to aircraft manufacturers and operators. On-site assistance is available to support system integration, troubleshooting, analysis, rework, retrofit and repair of ACSS equipment.

Services include AOG/Emergency Services, Repairs, Maintenance Agreements, Technical Support, Publications, Training, and Database Service.