

L-3 AR Maritime Products

PROTEC-MA SECURE AIRBORNE AIS



The L-3 PROTEC-MA Airborne Automatic Identification System (AIS) transponder provides maritime patrol and SAR aircraft with the ability to track and identify AIS-equipped vessels over a dedicated VHF datalink. AIS is a key component of any maritime ISR network and offers maritime authorities with the ability to better coordinate air and sea Search and Rescue, Surveillance and Interdiction operations. The PROTEC-MA is fully compliant with the STEDS-EAIS protocol standard adopted by the US DoD and DHS and offers a FIPS-approved encryption method for secure position reporting and messaging. The PROTEC-MA is a fully compliant AIS transceiver and has been designed in accordance with D0-160E environmental test standards.



KEY FEATURES

- Designed and tested in accordance with D0-160E
- Meets applicable performance and protocol standards for maritime AIS
- Complies with STEDS EAIS protocol standard for secure messaging
- Encryption method has been verified to FIPS 140-2 standard
- Increased receiver sensitivity improves performance and coverage
- Advanced RF filtering reduces interference risk
- Open protocol simplifies integration with AIS and RADAR display systems
- Three modes of operation to support any mission profile
- Compact and robust design
- Optional ARINC interface



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PHYSICAL DIMENSIONS

Height:	152.4 mm (6.0 in)
Width:	101.6 mm (4.0 in)
Depth:	268 mm (10.55 in)
Weight:	4.54 kg (<10.0 lbs)

POWER REQUIREMENTS

Input:	28V DC
Nominal Power:	13W
Peak Power:	50W

DATA I/O

Sensor Input:	(3) RS422/232
Bi-Directional I/O:	(3) RS422/232 I/O
ARINC Support:	Optional

TRANSMITTER PERFORMANCE

TX Frequency Range:	156.025 – 162.025 MHz
TX Power Control:	1-12.5W

RECEIVER PERFORMANCE

RX Frequency Range:	156.025 – 162.025 MHz
# AIS Receivers:	2
DSC Receiver:	1 (optional)

GPS RECEIVER

# Channels:	16
Antenna Type:	5V active or passive

ANTENNA CONNECTIONS

VHF Antenna:	N-Type
GPS Antenna:	TNC
Nominal Impedance:	50Ω

MODES OF OPERATION

Standard:	Class A Transmit/Receive
Receive:	Receive only
Restricted:	Secure Transmit/Receive

ENVIRONMENTAL STANDARDS

D0-160E

TECHNICAL STANDARDS

IEC 61993-2, 61162, 60945, ITU 1371-3

L-3 Aviation Recorders Quality Management System is ISO 9001:2000 and AS9100:2004 Rev. B Certified

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communications

Aviation Recorders

L-3. Headquartered in New York City, L-3 Communications is a prime contractor in aircraft modernization and maintenance, C³ISR (Command, Control, Communications, Intelligence, Surveillance and Reconnaissance) systems and government services. L-3 is also a leading provider of high technology products, subsystems and systems.

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

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