

L-3 AR Maritime Products

PROTEC-MA AIRBORNE AIS



The L-3 PROTEC-MA Airborne Automatic Identification System (AIS) Transponder is designed for the installation on aircraft operated by maritime authorities. It allows full use of the AIS VDL for air/sea coordination and coastal surveillance. The internal encryption algorithm enables maritime authorities to track similarly equipped air/sea assets in a secure fashion and the open protocol facilitates integration with any ISR system. The L-3 PROTEC-MA is fully STEDS compliant.



KEY FEATURES

- DO-160E compliant (rotary and fixed wing)
- Secure communication between assets
- Extends maritime domain coverage through the use of the Airborne AIS platform
- Information can be viewed on cockpit MFD monitors
- Compact and robust design
- IEC 61993-2 compliant with optional ARINC 429 support
- Completes the SAR link by adding AIS coverage of the maritime domain
- STEDS Protocol



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PHYSICAL DIMENSIONS

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

POWER REQUIREMENTS

Input:	28VDC
Watts:	13W average/50W peak

DATA I/O

Sensor input:	(3) RS422/232
Bi-directional I/O:	(3) RS422/232 I/O
Sensor Input:	(3) ARINC 429 (optional)
Sensor Output:	(1) ARINC 429 (optional)

TRANSMITTER PERFORMANCE

TX Frequency Range:	156.025 - 162.025MHz
Tuning Resolution:	1 kHz
Synthesizer Type:	Fractional PLL
Modulation:	GMSK/FSK
TX Power Control:	1-12.5W
TX Power Accuracy:	±0.7dB
TX Frequency Drift:	±500Hz
Nominal Impedance:	50Ω
Antenna Connection:	Type N

RECEIVER PERFORMANCE

# of Receivers:	3
RX Frequency Range:	156.025 - 162.025MHz
Tuning Resolution:	12.5kHz
Dynamic Range:	≥110dB
Co-Channel Rejection:	≥10dB
Adj. Channel Rejection:	≥72dB
Intermod. Rejection:	≥74dB
In-Band Blocking:	≥86dB
Noise Figure:	≤5dB

RECEIVER PERFORMANCE cont'd

Nominal Impedance:	50Ω
Antenna Connection:	Type N
Max Input:	+10dBm (no damage)
GPS Receiver:	16 Channel
DSC Receiver:	Fixed on Channel 70

ENVIRONMENTAL

Operating Temp Range:	D0-160E (Rotary & Fixed)
Vibration:	D0-160E (Rotary & Fixed)

TECHNICAL STANDARDS

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

REGULATORY APPROVALS

D0-160E (pending certification)

L-3 Aviation Recorders Quality Management System is ISO 9001:2000 and AS9 100:2004 Rev. B Certified

Aviation Recorders

6000 Fruitville Road
Sarasota, Florida 34232 U.S.A.
Tel: 941-371-0811 Fax: 941-377-5591
Website: www.L-3ar.com/
Documents: www.L-3ar.net/



communications
Aviation Recorders

L-3. Headquartered in New York City, L-3 Communications employs over 64,000 people worldwide and 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. The company reported 2007 sales of \$14 billion.