

L-3 AR Maritime Products

PROTEC ATO N AIS



The L-3 PROTEC Aids to Navigation (AtoN) AIS is an IALA and IEC compliant marine aid that provides vital information to on-board navigation devices, Vessel Traffic Systems (VTS) and buoy tender services. The AtoN not only has the ability to transmit meteorological and hydrological data when interfaced to sensors, but it can also help prevent collisions by transmitting the position of a floating AtoN and provide off-position status. L-3 offers a full range of AtoN devices from transmit only configurations (IEC Type 1) to dual receiver/transmit (IEC Type 3).



KEY FEATURES

- Fully compliant with IEC 62320-2, IALA A.126 and IEC 60945 (exposed)
- Low power consumption of less than 400 mAh/day
- For use on floating or fixed AtoN's
- Supports VDL configuration and monitoring
- Provides reference points on a ship's RADAR and ECDIS
- Provides health status of the AtoN device, including battery life and light burnouts
- Supports VDL configuration and monitoring
- Designed to support chaining and RATDMA (Type 3 configuration only)
- Capable of supporting synthetic and virtual transmissions
- Type 3 units support message 7 and message 13



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PROTEC AIS ATON

PHYSICAL DIMENSIONS

Height:	134 mm (5.28 inches)
Width:	127 mm (5.0 inches)
Depth:	127 mm (5.0 inches)
Weight:	1.6 kg (3.53 pounds)

POWER CONSUMPTION

Continuous Mode*:	At 12 VDC: 170mW (0.340 Ah per 24 hour period)
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DATA I/O

Bi-directional I/O:	(1) RS232 38.4k BAUD
Diagnostic I/O:	(1) RS232 38.4k BAUD

TRANSMITTER PERFORMANCE

TX Frequency Range:	156.025 - 162.025MHz
Tuning Resolution:	25kHz
Modulation:	GMSK
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:	2
RX Frequency Range:	156.025 - 162.025MHz
Tuning Resolution:	25kHz
Dynamic Range:	≥100dB
Co-Channel Rejection:	≥10dB
Adj. Channel Rejection:	≥72dB
Intermod. Rejection:	≥65dB
In-Band Blocking:	≥86dB
Noise Figure:	≤5dB

*Continuous Mode: AIS AtoN reports Message 21 every 3 minutes in accordance with ITU-R M.1371

RECEIVER PERFORMANCE cont'd

Nominal Impedance:	50Ω
Max Input:	+10dBm (no damage)
Minimum Sensitivity:	≤-107dBm
GPS Receiver:	16 Channel

ENVIRONMENTAL

Operating Temp Range:	-25° to +55° C
Relative Humidity:	0 to 95%

*NOTE: All Specifications Tested @ 25° C

TECHNICAL STANDARDS

IEC 60945 (exposed)
ITU 1371-3
IEC 62320-2

REGULATORY APPROVALS

BSH pending

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

MAR034 Rev *A This technical data and software is considered as Technology Software Publicly Available (TSPA) as defined in Export Administration Regulations (EAR) Part 734.7-11.