

TUNGSTEN

AIS Aid to Navigation (AtoN) Transceiver

Product Type: PCA Module

Fully integrated AIS AtoN transceiver. Available in either Type 1 or Type 3 configuration. Tested and certified to IEC and ITU standards. Worlds lowest power consumption, coupled with exceptional performance and functionality.

- Available as Type 1 or Type 3
- Small integrated single module
- Globally certified to IEC and ITU AIS AtoN standards
- Proven reliability and performance
- Multiple interfaces
- Customisable
- Supports up to x10 virtual Aton
- Repeater functionality
- Encrypted two way control communications



Power < 0.09 Ah/day

World's lowest power consumption



Flexible interfaces for multiple sensor and external device integration



Risk free integration into any target enclosure. Full developers kit and integration support

Integration

This module is specifically designed for easy, quick and low risk integration into any enclosure.

A full integration kit is available for developers, which provides detailed information and support on all physical, electrical and software interfaces.

Customisation

SRT modules offer unmatched capability to be customised for specific applications and markets.

Redundant processing power and built-in flexibility allows the implementation of a wide range of additional features, functions, interfaces and messaging.

Certification

This module meets the required IEC international standards and has been independently tested by accredited European test houses. The module is provided with a full suite of formal test reports, including RF and AIS protocol to support certification in any jurisdiction globally.

Physical Specification

Dimensions	110 x 55 x 14mm (D x W x H)
Weight	60g

Electrical Specification

Power supply	12 to 24VDC
Power consumption Type 1 AtoN (FATDMA)	Less than 0.09Ah/day (with 3 minute position reporting rate)
Power consumption Type 3 AtoN (RATDMA)	Less than 0.8 Ah/day (with 3 minute position reporting rate)

Data Interface

USB (for configuration)	✓
Two IEC61162-1 (NMEA0183) ports at 38400 baud	✓
10 configurable logic level IO lines	✓
SPI port	✓

VHF Transceiver

Transmitter	x 1
Receiver	x 2
Frequency	156.025 to 162.025 MHz in 25KHz steps
Output power	1W, 2W, 5W or 12.5W
Channel bandwidth / step	25KHz 25KHz GMSK (AIS, transmit and receive)
Bit rate	9600 b/s (GMSK)
Receiver sensitivity	<-110dBm at 20% PER
Adjacent channel selectivity	70dB
Spurious response rejection	70dB

AtoN Functions

Type 1 and Type 3 options available	✓
Supports configuration by VDL command	✓
Chaining option available as standard	✓
Customisable sensor interfacing (via separate PCB)	✓
Virtual AtoN support	✓

GPS Receiver & Antenna

50 channels	✓
IEC 61108-1 compliant	✓
Glonass Option	✓

Standards Compliance

AIS Standards	IEC62320-2 Edition 1 IEC standard, AIS Aids to Navigation ITU-R M.1371-4 Universal AIS Technical Characteristics
Environmental standard	IEC60945 Edition 4
Serial data interface standards	IEC61162-1 IEC61162-2 Edition 2
GPS performance standard	IEC61108-1 (relevant sections)

Environmental

Operating temperature	-25°C to +55°C
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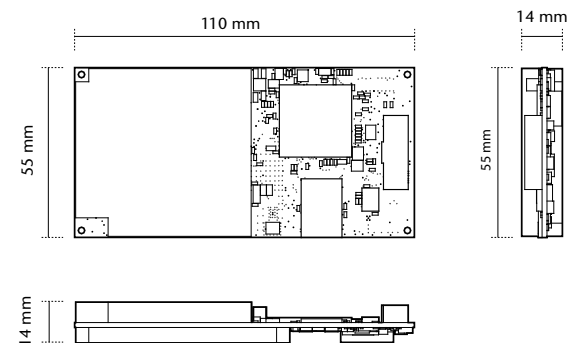
Packaging

Each module is individually packaged in an ESD bag and boxed in batches of 100 units.

Box Size	29 x 41 x 20 inches (D x W x H)
Box Weight	6.4kg

All packaging can be fully customised to your specifications. The box contains the following:

Dimensions



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SRT enhances maritime domain awareness by developing and manufacturing tracking technology and system solutions for individual vessel owners, port authorities, maritime infrastructure owners, coast guards and national security agencies around the globe. Applications include the tracking of commercial and leisure vessels; sustainable fishery; anti-collision; search and rescue; waterway management, port and coast security; pollution management and environmental management.

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