CARBON
AIS Aid to Navigation (AtoN) Transceiver
Product Type: OEM White Label

Carbon is an internationally certified AIS AtoN with the world's lowest power consumption. Available as either Type 1 or Type 3 configurations, it offers a full range of features, including transmission of virtual AtoN targets, simple integration with lanterns and external sensors, plus over the air configuration and chaining. The toughened enclosure is designed for continuous, long term use in even the most extreme environments from the equator to the poles.

- Configurable as Type 1 or Type 3
- Ultra low power consumption (<0.1Ah/day in Type 1) in all operating modes
- Designed and manufactured for the toughest of environments – IP66 and IP67
- Integrated GPS antenna with optional external input
- Multiple flexible sensor interfaces
- Proven operational reliability
- Full feature set, includes support for x10 virtual AtoN
- Repeater functionality
- Encrypted two-way control configuration

Ultra low power consumption minimises overall system installation costs

Multiple external interfaces facilitates easy integration with external sensors and devices

Ruggedised, weatherproof, enables permanent installation in any environment

Branding

Our OEM products are supplied fully branded as per your specific requirements. This includes the product, all manuals and packaging such that upon arrival they are instantly ready for you to ship to your customers.

Customisation

SRT products offer unmatched capability to be customised for specific applications and markets. Additional features and functions can be specified and implemented and range from the simple to complex encryption and messaging features.

Certification

This product is fully tested and certified to the relevant international standards and product specifications. As part of the OEM customisation process into your brand, international certification can be transferred into your brand name within a matter of weeks.

Physical Specification

Dimensions	284 x 188mm (H x D)
Weight	1.2Kg

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)

Interfaces - basic AtoN

USB	for configuration
IEC61162-1 ports	Two (NMEA0183) at 38400 baud
Logic level IO lines	5 configurable

Interfaces - via optional sensor interface

Five isolated digital inputs	✔
Two isolated analogue inputs – 0 to 36VDC	✔
Three non-isolated analogue inputs	✔
Two relay drive outputs	✔
Analogue current sense (up to 5A)	✔
Four non-isolated logic level input / output channels	✔
NMEA0183 (IEC61162-1/2) port	✔
Two RS232 ports – at 38400 baud	✔
SDI-12 interface	✔

Standards Compliance

AIS Standard	IEC62320-2:2008
Environmental	IEC60945:2002-08
GPS Performance Standard	IEC61108-1:2002-07
Safety	EN60950-1:2006 +A11:2009 +A1:2010 +A12:2011

VHF Transceiver

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

GPS Receiver & Antenna

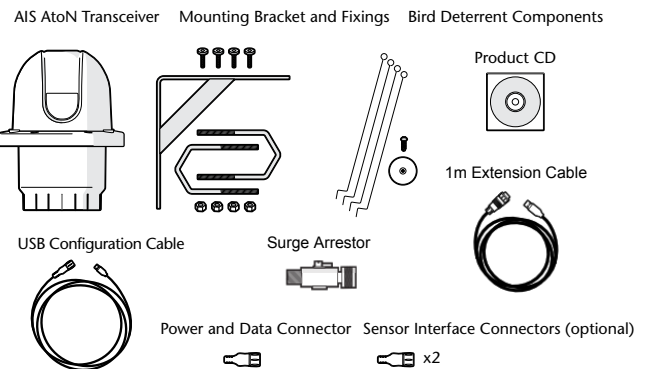| Channels	50
IEC 61108-1	Compliant
GPS antenna	Internal or external available separately
Glonass	Option available
Spurious response rejection	70dB

AtoN Functions

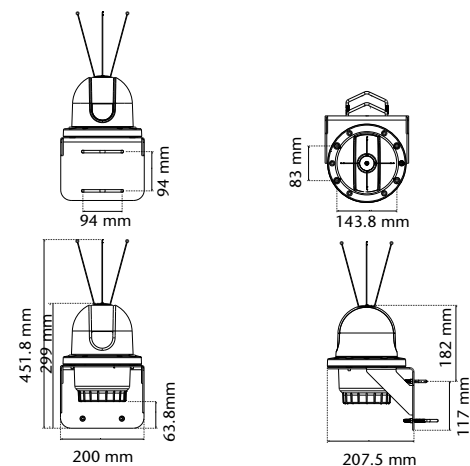| Type 1 and Type 3 options available	✔
Supports configuration by VDL command	✔
Chaining option available as standard	✔
Customisable sensor interfacing	✔
X 10 Virtual AtoN support	✔

Environmental

Waterproof	IP66 and IP67 rated for water ingress
IEC 60945	'Exposed' category
Operating temperature	-25°C to +55°C

What's In The Box

AIS AtoN Transceiver   Mounting Bracket and Fixings   Bird Deterrent Components

Product CD

1m Extension Cable

USB Configuration Cable

Surge Arrestor

Power and Data Connector   Sensor Interface Connectors (optional)

x2

Dimensions

94 mm
94 mm

83 mm
143.8 mm

451.8 mm
299 mm
63.8mm
200 mm

182 mm
117 mm
207.5 mm

201-0802:1

Contact us now for your OEM requirements:

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