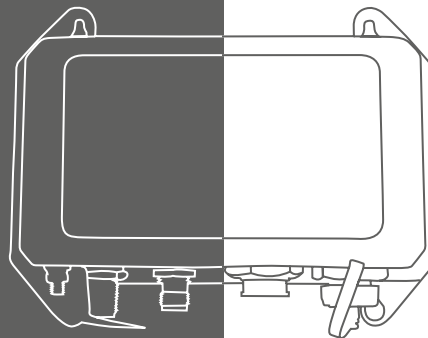




AIS NAVIGATION AID ATON SRT Chronos

APPLICATION

AIS for marine aid to navigation



Chronos 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, over the air configuration and chaining. Chronos can be interfaced directly with lights and racons, and to an extensive range of sensors when connected to the Chronos Sensor Interface product accessory.

The small, tough enclosure is designed for continuous, long term use in even the most extreme environments from the equator to the poles and can be easily installed in even the tightest of spaces.

FEATURES

- available as Type 1 or Type 3
- proven operational reliability and performance
- ultra low power consumption in all operating modes
- small size for installation in the tightest of spaces
- designed and manufactured for the toughest of environments – IP66 and IP67
- multiple flexible sensor interfaces, when combined with the Chronos
- supports virtual AtoN
- unmatched capability to be customised for specific applications and markets





TECHNICAL SPECIFICATIONS

Dimensions (L x W x H)	172 mm x 120 mm x 55 mm
Weight	350 g
Power supply	12 V _{DC} – 24 V _{DC}
Power consumption Type 1 AtoN (FATDMA)	Less than 0.09 Ah / day (with 3 minute position reporting rate)
Power consumption Type 3 (RATDMA)	Less than 0.8 Ah / day (with 3 minute position reporting rate)
USB	for configuration
IEC61162-1 ports*	NMEA0183 at 38,400 baud
Light*	Status and health
Racon*	Status
Standards	IEC60945, 2002 IEC62320-2, 2016-10 IEC60945, 2002-08 EN60950-1, 2006 +A11:2009, +A1:2010, +A12:2011, +A2:2013
Operating temperature range	-25 °C to +55 °C
Ingress Protection	IP66 and IP67 rated for water ingress
IEC 60945	'Exposed' category

* Not available when connected to the Chronos sensor interface unit

VHF TRANSCEIVER

Transmitter	x 1
Receiver	x 2
Frequency	156.025 MHz to 162.025 MHz in 25 KHz steps
Output power	1 W, 2 W, 5 W or 12.5 W
Channel bandwidth	25 KHz
Channel step	25 KHz
Modulation modes	25 KHz GMSK (AIS, transmit and receive)
Bit rate	9600 b / s (GMSK)
Receiver sensitivity	< -110 dBm @ 20 % PER
Adjacent channel selectivity	70dB
AIS Receiver sensitivity at 20 % PER	< -110 dBm
AIS Transmitter Frequency Accuracy	< ±500 Hz
AIS Transmitter maximum transmit time for channel protection	1 Sec max on air

STANDARDS AND GUIDELINES

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

GPS RECEIVER AND ANTENNA

Channels	50
IEC 61108-1	Compliant
GPS antenna	External antenna provided
Glonaass option	available