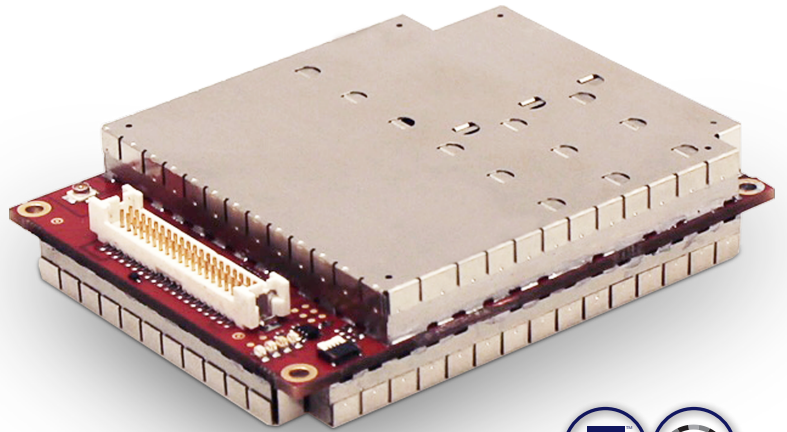


GENESIS

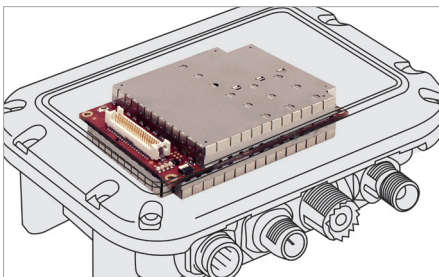
High Powered AIS Class B Transceiver

Product Type: PCA Module

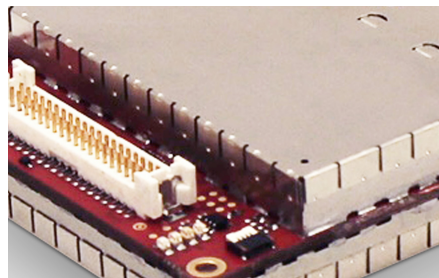
Genesis is a fully integrated miniature high powered AIS Class B transceiver module tested and certified compliant with IEC62287-2 (SOTDMA 5W). Genesis will receive and process all AIS transmission types in real time and transmit full AIS Class B messages, with the capability for message customisation. Genesis is designed for easy integration and exceptional performance courtesy of integrated HF-AIS technology. With built-in redundant processing capacity Genesis is easily customised and enhanced to easily deliver a wide range of additional functionality.



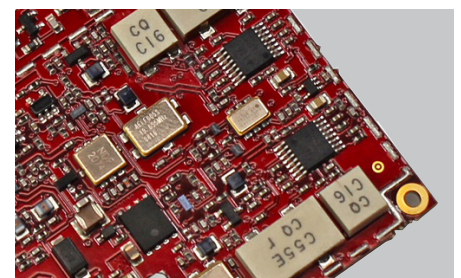
- High Powered AIS Class B – 5W SOTDMA (IEC62287-2)
- Fully integrated miniature PCA
- HF-AIS™ core technology for enhanced performance
- Enhanced RF interference protection
- Dual NMEA0183 & NMEA2000 data outputs
- Integrated dual performance enhanced GPS and GLONASS
- Exceptionally low power consumption
- Multiple configuration options, including SAT-Trak & Encryption
- Full developer integration support kit and test reports for certification



Full developers kit available



Robust, integrated design with enhanced EMC protection



HF-AIS™ core technology delivers exceptional operational performance

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	70 x 55 x 13mm (D x W x H)
Weight	40g

Electrical Specification

Power supply	12 to 24VDC (9.6V – 32V min/max)
Power consumption	150mA @ 12VDC, <2W average
Peak current	<2A during AIS transmissions
User 3.3V supply	Regulated 3.3VDC supply output (limited to 100mA)

Connectors

VHF antenna connector	U.FL
GPS antenna connector	U.FL
Power, data and IO	Hirose DF13 series, 40 ways

Data Interface

NMEA2000®	✓
USB	✓
Two bidirectional NMEA0183 interfaces, configurable data rate	✓
SD/MMC interface	✓
Silent mode switch input	✓
Outputs for external status LEDs	✓

Standards Compliance

AIS standards	IEC62287-2 Edition 2 ITU-R M.1371-5
Serial data interface standards	IEC61162-1 Edition 5 IEC61162-2 Edition 1
GNSS performance standard	IEC61108-1 GPS IEC61108-2 GLONASS
NMEA2000 interface standard	NMEA2000® Edition 2.20

*When incorporated into a final product

VHF Transceiver

Transmitter	x 1
Receiver	x 2
Frequency	156.025 to 162.025MHz in 25KHz steps
Output power	5W
Receiver sensitivity	<-110dBm @20% PER

GNSS Receiver

Channels	72
Compliance	IEC61108-1 Ed 2.0 and IEC61108- 2 (GLONASS)
SBAS capability	WAAS/EGNOS enabled
GPS data output	Position output to NMEA0183 and NMEA200 interfaces
Antenna	3.3V bias provided for GNSS antenna

Type Approvals*

Europe	RED
US	USCG and FCC
Canada	TC and IC

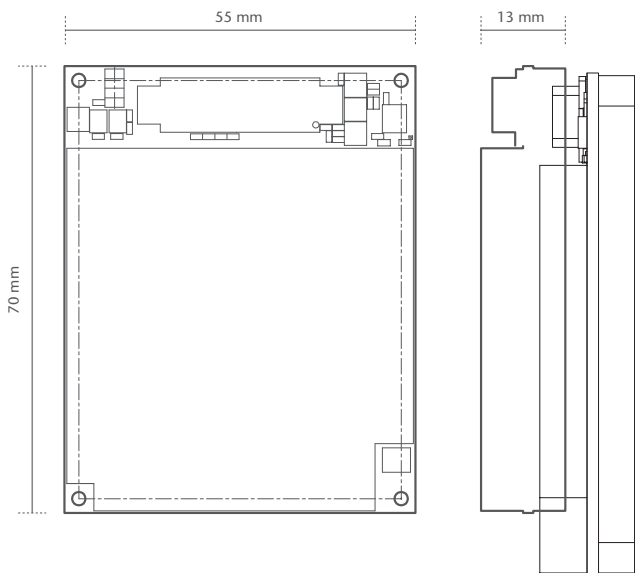
*When incorporated into a final product enclosure

Packaging

Box size	737 x 1041 x 508mm (D x W x H)
Box weight	6.4kg
Box quantity	100 units

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

Dimensions



201-0805:1

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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