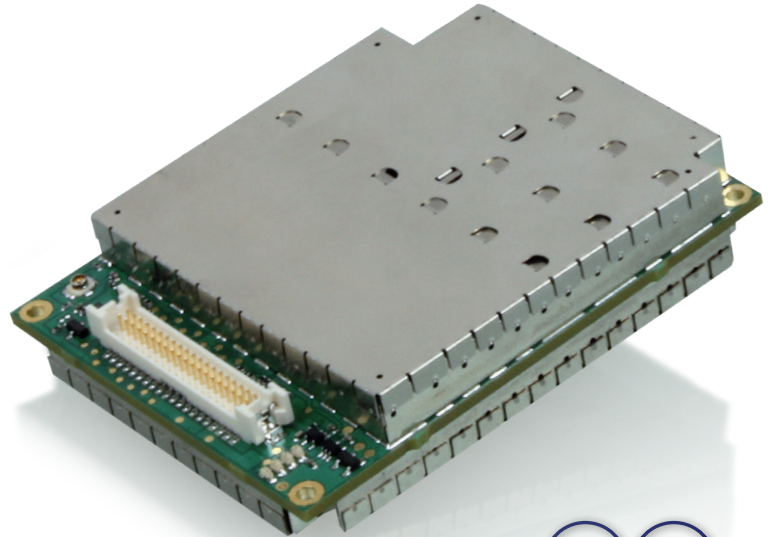


COBALT

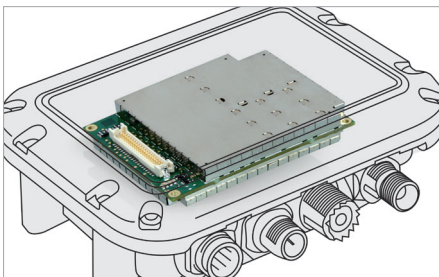
Standard AIS Class B Transceiver

Product Type: PCA Module

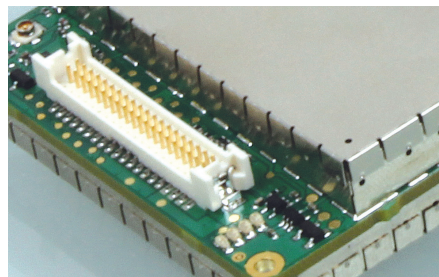
Cobalt is a fully integrated miniature standard AIS Class B transceiver module tested and certified compliant with IEC62287-1 (CSTDMA 2W). Cobalt will receive and process all AIS transmission types in real time and transmit full AIS Class B messages, with the capability for message customisation. Cobalt is designed for easy integration and exceptional performance courtesy of integrated HF-AIS technology. With built-in redundant processing capacity Cobalt is easily customised and enhanced to easily deliver a wide range of additional functionality.



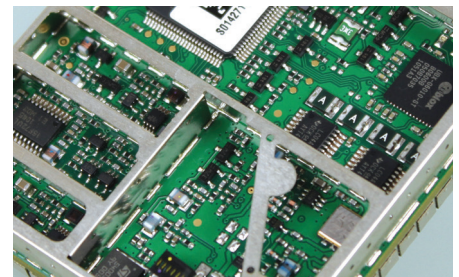
- Standard AIS Class B – 2W CSTDMA (IEC62287-1)
- Fully integrated miniature PCA
- Enhanced RF interference protection
- Dual NMEA0183 & NMEA2000 data outputs
- HF-AIS™ core technology for enhanced performance
- Integrated dual performance enhanced GPS
- Exceptionally low power consumption
- Multiple 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 | IEC62287-1 Edition 3 ITU-R M.1371-5 |
| Serial data interface standards | IEC61162-1 Edition 4 IEC61162-2 Edition 1 |
| GPS performance standard | IEC61108-1 (GPS) |
| 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 | 2W |
| Receiver sensitivity | <-110dBm @20% PER |

GPS Receiver

| | |
|-----------------|--|
| Channels | 50 |
| Compliance | IEC61108-1 Ed 2.0 |
| SBAS capability | WAAS/EGNOS enabled |
| GPS data output | Position output to NMEA0183 and NMEA200 interfaces |
| Antenna | 3.3V bias provided for GPS antenna LNA |

Type Approvals*

| | |
|--------|--------------|
| Europe | RED, BSH |
| US | USCG and FCC |
| Canada | TC and IC |

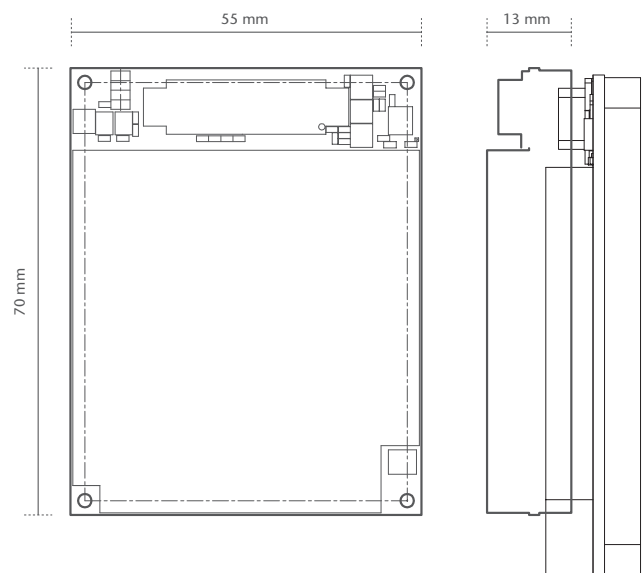
*When incorporated into a final product enclosure

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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