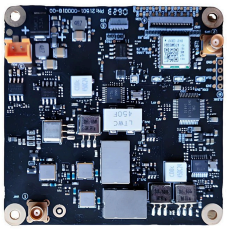
AIS CLASS B TRANSCEIVER MODULE

HS-MX1203GT

Embedded Class B / B+ AIS Transceiver Module

70 × 70 × 14 mm · 2 W CSTDMA / 5 W SOTDMA · −119 dBm



The HS-MX1203GT is a compact embedded AIS transceiver module supporting both Class B (2 W CSTDMA) and Class B+ (5 W SOTDMA) operation. Measuring 70 × 70 × 14 mm, it integrates a low-power processor, full-stack baseband processing and the RF transceiver.

TTL serial and NMEA 2000 interfaces, a dedicated configuration port and LED status outputs make the module suitable for vessel navigation systems, AtoN devices and unmanned platforms.

KEY FEATURES

- Class B (2 W CSTDMA) and Class B+ (5 W SOTDMA) operation
- Receiver sensitivity ≤ −119 dBm at 20% PER
- Dedicated low-power processor with full Class B protocol stack
- 3.3 V TTL / NMEA 0183 and NMEA 2000 interfaces
- Software upgrade and device control over the serial port
- Compact 70 × 70 × 14 mm form factor

AT A GLANCE

Parameter	Value
Receiver sensitivity	≤ −119 dBm @ 20% PER
Operating voltage	9–36 VDC
Frequency range	156.025–162.025 MHz
Output power	2 W CSTDMA / 5 W SOTDMA
Dimensions	70 × 70 × 14 mm
Operating temperature	−20 °C to +60 °C

APPLICATIONS

- Class B and Class B+ vessel tracking
- Small craft and workboat AIS installations
- AtoN and buoy monitoring
- USV and unmanned platform AIS
- Fleet management and coastal monitoring

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TECHNICAL SPECIFICATIONS

Parameter	Specification
AIS channels	AIS1 161.975 MHz, AIS2 162.025 MHz
Receiver sensitivity	≤ −119 dBm @ 20% PER
Co-channel rejection	0 to −10 dB
Adjacent channel selectivity	≥ 70 dB
Spurious emission rejection	≥ 70 dB
Intermodulation	≥ 65 dB
Blocking	≥ −23 dBm
Communication ports	3.3 V TTL / NMEA 0183, NMEA 2000
Baud rate	38,400 bps
Operating voltage	9–36 VDC
Frequency range	156.025–162.025 MHz
Frequency deviation	≤ ±0.5 kHz
Output power	2 W CSTDMA / 5 W SOTDMA
Transmitter spurious	≤ 0.25 µW
Dimensions	70 × 70 × 14 mm
Operating temperature	−20 °C to +60 °C

• The module accepts 12 V or 24 V DC input; allow one second for initialisation after power-up.
• MMSI, vessel data and output configuration are set through the serial configuration port.

APPLICATIONS

- Class B and Class B+ vessel tracking
- Small craft and workboat AIS installations
- AtoN and buoy monitoring
- USV and unmanned platform AIS
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QUALITY, COMPLIANCE & SUPPORT

- Designed and tested against the applicable IEC / ITU-R / NMEA standards for the product family
- Functional test and calibration before shipment
- CE / FCC / CCS certification in progress for selected models
- Standard warranty against manufacturing defects; period confirmed per product
- Technical documentation and configuration tools supplied for integration
- Engineering support for custom firmware, connectors and cabling

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COMMERCIAL INFORMATION

ORDERING & CUSTOMISATION

MOQ	10 units for standard models; confirmed for custom configurations
Lead time	2–4 weeks for standard models; confirmed for custom or volume orders
Payment	T/T; other terms by agreement
Samples	Evaluation samples available
Customisation	Firmware configuration, connector, cable assembly, labelling and packaging to your specification

PACKING & DELIVERY

Packing	Anti-static bag, foam and export carton; palletised on request
Shipping	Express (DHL / FedEx / UPS), air freight or sea freight — quoted per order
Origin	Xi'an, China
Documentation	Datasheet, user manual, pinout and test data on request

ABOUT HAISITEK

Founded in Xi'an in April 2015, Haisi Measurement and Control Technology Co., Ltd. develops and manufactures MEMS inertial sensors, inertial navigation systems and AIS communication products. In-house R&D covers sensor calibration, full-temperature compensation, RF design and embedded firmware.

- In-house R&D, calibration and production
- Full-temperature calibration and compensation
- Custom configuration, connectors and cabling
- Documentation and integration support

RELATED PRODUCTS

HS-MX1205GT
Multi-Mode 12.5 W AIS Transceiver Module

HS-MX1209GT
Ultra-Compact AIS Receiver Module with Built-In GNSS

HS-MX1201GT
Multi-Function Embedded AIS Transceiver Module

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Inertial sensors, IMU / INS and AIS modules since 2015.

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