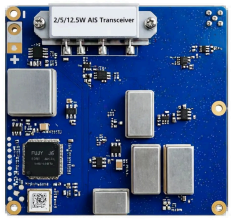
AIS CLASS A TRANSCEIVER MODULE

HS-MX1205GT

Multi-Mode 12.5 W AIS Transceiver Module

12.5 W SOTDMA · −119 dBm sensitivity · 90 × 90 × 15 mm



The HS-MX1205GT is a multi-mode AIS Class A transceiver module for maritime communication, vessel tracking and coastal monitoring. It combines 12.5 W SOTDMA Class A transmission with dual AIS receivers and a built-in 50-channel GPS receiver in a 90 × 90 × 15 mm module.

Receiver sensitivity of −119 dBm at 20% PER keeps AIS reception stable in congested or long-range environments. The module supports Class A, AtoN, Virtual AtoN, USV, UAV and AIS base-station applications through a 3.3 V TTL NMEA 0183 interface.

KEY FEATURES

- Multi-mode AIS: Class A, AtoN, Virtual AtoN, base station, USV and UAV
- 12.5 W SOTDMA output with 1 W / 2 W / 5 W / 12.5 W modes
- Receiver sensitivity −119 dBm at 20% PER
- Built-in 50-channel GPS receiver (IEC 61108-1)
- Dual AIS receivers plus one transmitter
- Silent mode and four status indicators (power, TX, RX, error)

AT A GLANCE

Parameter	Value
Dimensions	90 × 90 × 15 mm
Weight	100 g
Power supply	6–36 VDC
Output power	1 W / 12.5 W
Data interface	3.3 V TTL, NMEA 0183, 38,400 bps
Receiver sensitivity	< −119 dBm @ 20% PER

APPLICATIONS

- AIS Class A transponders and AIS base stations
- Type 1/2/3 AtoN and Virtual AtoN
- Maritime UAV and USV platforms
- Offshore wind farm electronic fences
- Coastal surveillance and vessel traffic management

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TECHNICAL SPECIFICATIONS

Parameter	Specification
Dimensions	90 × 90 × 15 mm
Weight	100 g
Power supply	6–36 VDC
Power consumption	200 mA @ 12 V (< 2.3 W average)
Output power	1 W / 12.5 W
GPS receiver	Built-in 50-channel GPS, IEC 61108-1 compliant
Data interface	3.3 V TTL, NMEA 0183, 38,400 bps
Silent mode	Supported
VHF transceiver	1 × TX, 2 × RX
Operating frequency	156.025–162.025 MHz (25 kHz spacing)
Receiver sensitivity	< −119 dBm @ 20% PER
Indicators	Power / TX / RX / Error
Operating temperature	−20 °C to +60 °C
Compliance	IEC 60945, IEC 61993-2, IEC 62320-2, ITU-R M.1371-5, IEC 61162-1/2

• Supports the AIS AtoN message set required for Type 1/2/3 aids to navigation.
• Configuration software, NMEA protocol guide and pinout definitions are available for integrators.

APPLICATIONS

- AIS Class A transponders and AIS base stations
- Type 1/2/3 AtoN and Virtual AtoN
- Maritime UAV and USV platforms
- Offshore wind farm electronic fences
- Coastal surveillance and vessel traffic management

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

HS-MX1201GT
Multi-Function Embedded AIS Transceiver Module

HS-MX1206GT
Embedded Dual-Channel AIS Receiver Module

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

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