AIS PAYLOAD
by SDR Technology

AlÉn.space
A GMV COMPANY

The Alén Space **AIS (Automatic Identification System) receiver** is a tracking system for vessels, which is their main method for collision avoidance. It operates in VHF RF band using a TDMA scheme and can be received by coastal stations as well as satellites.

TRL 9

PAYLOAD CHARACTERISTICS

- 4 channels of the AIS standard covered
- Frequency Range: 156 - 162 MHz
- Sensibility: -107 dBm @ PER (PER: Packet Error Ratio) = 0.1

KEY FEATURES

- Track and decode ship information
- Static information
- Dynamic information
- Voyage related information
- Short safety related messages

The **TOTEM SDR based**, on-board processing (OBP) / programable FPGA payload, for nanosatellites and CubeSats, gathers and stores the **received frames in its database** then they can be retrieved to report files according to different filters and then downloaded.

The AIS payload bundle includes:
- TOTEM SDR Motherboard
- AIS SW application
- VHF Frontend
- Optional: VHF antenna

GENERAL SPECIFICATIONS

- PC/104 form factor
- Power consumption:
  - 2.35 W +-5% in RX mode
  - 1.4 W in stand-by mode
- Multiple interfaces: CAN, UART, I2C, Ethernet
- Mass: < 135 g +-5%
- Operational temperature: -40oC to 85oC

> **TOTEM SDR Technology** enables safe in-orbit updates and Multi-Application use

> **Check our Multi-Application payload brochure!**