

ADS-B Receiver Payload by SDR Technology



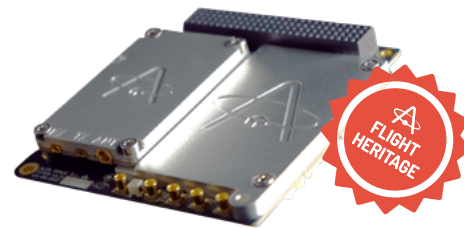
The Alén Space **ADS-B (Automatic Dependent Surveillance Broadcast)** receiver controls and increments **security in airplanes** by tracking their position and flight parameters continuously during their operation.

The **TOTEM SDR based**, on-board processing (OBP) / programmable FPGA, payload for nanosatellites and CubeSats, decodes aircraft frames emitted in **1090MHz band** and provides the following relevant information for their tracking:

- ICAO code
- Callsign
- Position (latitude and longitude)
- Altitude
- Velocity
- Heading

The ADS-B payload bundle includes:

- TOTEM SDR Motherboard
- ADS-B SW application
- Optional: L-Band active antenna



Payload Characteristics

- Frequency: 1090 MHz
- Track and decode plane information
 - ICAO code - Callsign - Position (latitude and longitude) - Altitude - Velocity - Heading

Key Features

- Low Power Satellite ABS-B receiver
- Includes information about timestamp, aircraft code and area

General Specifications

- PC/104 form factor
- Mass: < 130 g
- Power supply: 5V
- Power consumption:
 - 2.35 W +-5% in RX mode
 - 1.4 W in stand-by mode
- Multiple interfaces: CAN, UART, I2C, Ethernet
- Operational temperature: -40oC to 85oC

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

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



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