



The Alén Space **H2.0 Protocol for IoT** is a narrow band communication protocol between users, terminals and ground stations. The **IoT payload** offered by Alén Space provides communication capabilities based on short messages as well as a set of functionalities beyond the messages transportation.

The IoT payload bundle includes:

- TOTEM SDR Motherboard
- IoT SW application H2.0 IoT Protocol
- UHF Frontend
- 4 x Ground Terminals for testing proposes*
- Optional: UHF antenna

**A larger batch of ground terminals can be included.*

Payload Characteristics

- Bidirectional and broadcasting modes
- Message size: Up to 192 bytes
- Modulation: GMSK
- Bitrate: 1200-9600 bps
- Channel bandwidth: 25 kHz
- TX Power = 30 dBm +- 1dB.

Key Features

- Secure communications
- Instant data relay
- Storage and forward
- Group communications
- Terminals network management and maintenance supervised and controlled by the system owner

General Specifications

- PC/104 form factor
- Mass: < 135 +- 5g
- Power supply: 5V
- Sensibility: -121 dBm +- 1dB (BER = 10e-3)
- Power consumption:
 - 5.35W +- 1% in TX mode
 - 2.12W +- 1% 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!**

