"Aqui onde a terra se acaba e o mar começa…"

HelioX
COSMOS

陽翼先進科技有限公司
Your Gateway to the Stars

HelioX Cosmos provides you flexible, affordable and responsive solutions ranging from small satellite launch business to space outreach activities and together explore the NewSpace market.

SOLUTIONS

SPACE LAUNCH SERVICE / BUSINESS DEVELOPMENT

SATELLITE COMPONENTS / TECHNICAL SUPPORT
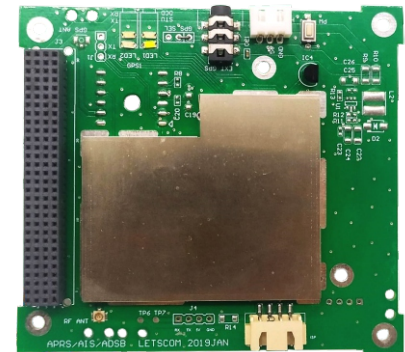
SPACE EDUCATION / OUTREACH

©

Description:

APRS (Automatic Packet Reporting System) enables real-time repeat* or forward positioning and data of ground tracking equipments, such as vehicles, animals, etc.

AIS (Automatic Identification System) Receiver payload will pick up vessels position that use an AIS A/B channels transponder.

APRS / AIS dual payload module, effectively tracks and collects a large number of land and sea (surface) objects to achieve acquisition of APRS / AIS data globally.

Real-time repeat: This optional function is disabled. The packet data real time repeater function is determined by frequency coordination and project application.
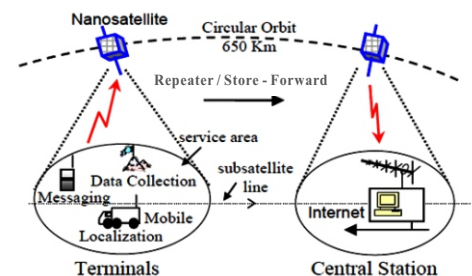
In the figure shown on the right, the data collect function could be configurable fo repeater or store-forward to the ground station.

Applications:

The **Double-A (APRS / AIS)** payload *"Real Time Repeater" / "Store & Forwarding"* applications are

- ♦ **APRS** - Vehicle and vessels positioning with data collection
- ♦ **APRS** - Ecological & seismic / tracking & detection: birds, animals, landslides
- ♦ **APRS** - Ocean windmills, widespread area power grid management
- ♦ **AIS** - Sea surface drifts, ocean current tracking and tide wave change monitoring

Payload Specification:

General Specification:
- Power Supply: 5V
- Power Consumption: 800mW.
- Operating Temperature: -20ºC to +80ºC
- Temperature Sensor
- Dimension: PC104 size compatible

APRS Specification:
- Receive Sensitivity: -126 dBm
- RX Frequency: 140~175 MHz
- Modulation Schemes: FSK
- Data Rates: 1200 bps
- RF connector: IPX
- Data Interface: UART TTL standalone.

AIS Specification:
- Function: AIS Class A and B
- Frequency:161.975/162.025MHz
- Data Rate: 38,400bps
- Receive Sensitivity: -116 dBm
- RF connector: IPX
- Data Interface: UART TTL standalone.

APRS /AIS Block Diagram

Product of
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Inquiries / Contact
HelioX Cosmos Co., Ltd.
info@helioxcosmos.com