

ALBATROS EVALUATION KIT



EVALUATION KIT

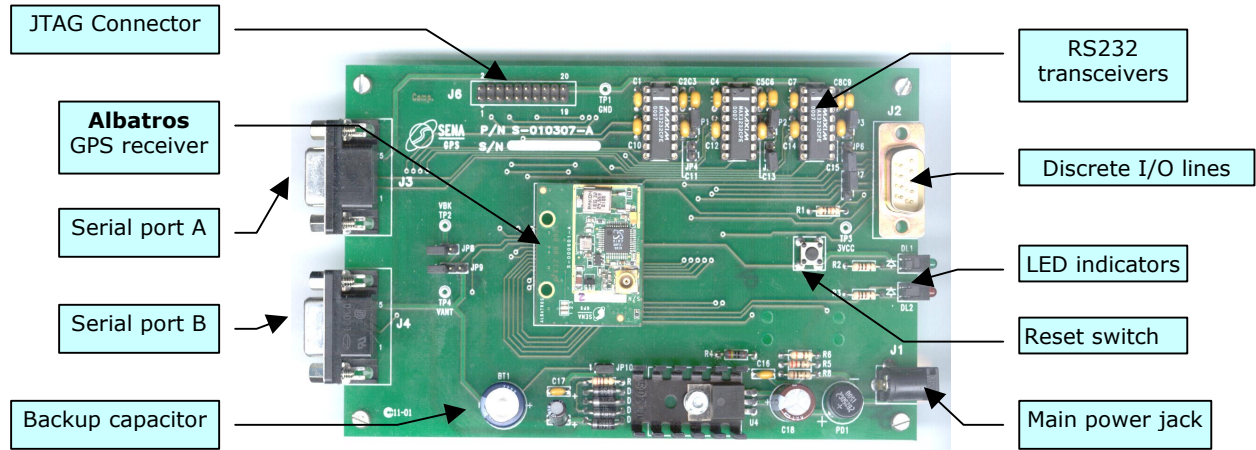
The **Albatros** OEM GPS Receiver from SENA GPS is a new OEM GPS receiver product that features the revolutionary SiRFStar-II chipset. This complete 12-channel, provides a vastly superior position accuracy performance in a much smaller package. The SiRFStar-II architecture built on the high-performance SiRFStar-I core, adding an acquisition accelerator, differential GPS processor, multipath mitigation hardware and satellite-tracking engine. **Albatros** delivers major advancements in GPS performance, accuracy, integration, computing power and flexibility.

The Albatros Evaluation Kit provides all the necessary tools and components to allow the customer to easily start, test, evaluate and integrate the **Albatros** GPS receiver in his own design.

The Albatros Evaluation Kit mainly supplies the following functions:

- Provide alimentation to the **Albatros** GPS receiver.
- Provide RS232 interface to the GPS receiver for its two serial ports. Each port can independently be configured to use RS232 or 3.3V TTL electric levels.
- Provide discrete I/O for the module. 3 inputs, and 6 outputs are available on the I/O connector.
- Provide backup current source to maintain GPS data when the power is removed.
- Provide 20-pin JTAG interface to the SiRF GSP2e ARM microprocessor.
- A set of jumpers allows easy configuration of the board resources.

PRODUCT PRESENTATION



PACKAGE CONTENTS

The Albatros Evaluation Kit package contains the following components:

- **Albatros** Evaluation Kit Motherboard.
- **Albatros** GPS Receiver.
- User's guide.
- Evaluation kit CD: contains PC software, documentation in PDF format.
- Active 3V GPS antenna.
- Power supply adaptor.
- Serial cable.

DISCRETE I/O CONNECTOR PINOUT

Pin number	Name
1	INP1
2	INP2/DBGEN
3	INP3
4	OUT1
5	OUT2
6	OUT3
7	OUT4/TIMEMARK
8	OUT5
9	OUT6

ELECTRICAL CHARACTERISTICS

Power supply voltage: 6 to 12 Vdc nominal = 9V.

Input High Level: $0.7 \times V_{dd}$. All discrete input pins.

Input Low Level: $0.3 \times V_{dd}$. All discrete input pins.

Output high level: 2.4V. All discrete output pins (@ $I_{oh} = 2\text{mA}$).

Output low level: 0.4V. All discrete output pins (@ $I_{ol} = 2\text{mA}$).

Input Leakage current: $\pm 1\mu\text{A}$. All discrete input pins.

Input Capacitance: 3 pF. All discrete input pins.

Output Capacitance: 3 pF. All discrete output pins.

INTERFACES

- **Power connector:** Jack connector external diameter: 5.5 mm. Internal diameter 2.1 mm.
- **Serial port A:** Navigation data in SIRF or NMEA format, also used to download new software releases.
- **Serial port B:** Is used to receive differential corrections (DGPS).
- **Discrete I/O connector:** This 9 pins male Sub-D connector provides 9 discrete I/O lines: 3 inputs and 6 outputs.

LED INDICATORS

Green (DL1): ON when power is applied to the board Según petición

Red (DL2): ON when the GPS is ON, OF when the GPS is OFF in push-to-fix OFF mode.

INCLUDED SOFTWARE

- **SIRFFLASH:** This program allows the user to download a new software release in the **Albatros** GPS receiver.
- **SIRFDEMO:** SiRfdemo is the GPS Receiver configuration and monitoring software provided with the Albatros Evaluation Kit. This software can be used to monitor real-time operation of the **Albatros** Receiver, log data for analysis, and configure the GPS Receiver operation.