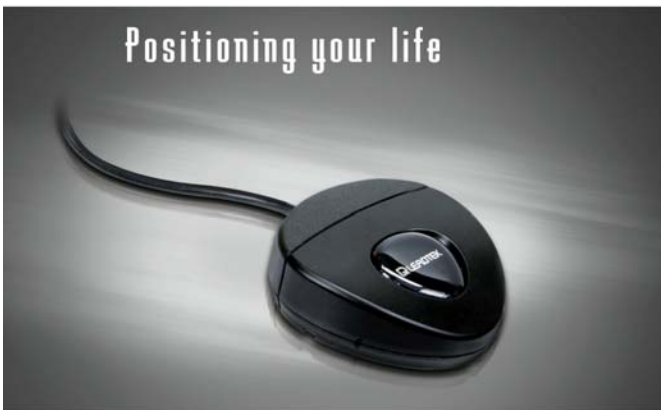


LEADTEK GPS SMART ANTENNA

LR9450 Specification Sheet



- SiRF StarIII single chipset
- 60x60x19 mm
- Waterproof & Magnetic Mounting
- RS232 with RJ11 connector
- RoHS compliance

Introduction

The Leadtek LR9450 is a highly sensitive and compact GPS mouse with low power consumption. Built with SiRFStarIII™ architecture and RS232 interface it can be used in a variety of applications, in laptops or PDAs. Non-slip underneath with a magnetic mounting. It is easy to place on top of a vehicle to fix positioning. Even on rainy days the LR9450's certified waterproof configuration ensures perfect functionality.

Features

Hardware and Software

- Based on the high performance features of the SiRF Star III single chip
- Built-in high gain amplifier and bandpass filter
- RoHS compliant (lead-free)
- Dimension: 60x60x19 mm
- Hardware compatible with SiRF GSC3x software
- SBAS (WAAS and EGNOS) support

Performance

- Cold / Warm / Hot Start Time: 42 / 35 / 1 seconds
- Reacquisition Time: 0.1 second
- RF Metal Shield for best performance in noisy environments
- Multi-path Mitigation Hardware

Interface

- RS232 with RJ11 connector
- Protocol: NMEA-0183 / SiRF Binary (default NMEA)
- Baud Rate: default 4800 bps

Specifications

Technical Specifications

Feature	Content	Description
Chipset	GSC3f Series	SiRFStarIII GSC3-7979
General	Frequency	L1, 1575.42 MHz
	C/A code	1.023 MHz chip rate
	Channels	20
Accuracy	Horizontal Position	Autonomous : < 2.5 meters
		SBAS : < 2.0 meters
	Velocity	Speed: < 0.01 meters/second Heading: < 0.01°
Datum	Default	WGS-84
	Other	selectable for other Datum
Time to First Fix (TTFF) 1	Reacquisition	0.1 sec., average
	Hot start	1 sec., average typical TTFF
	Warm start	35 sec., average typical TTFF
	Cold start	42 sec., average typical TTFF
Dynamic Conditions	Altitude	18,000 meters (60,000 feet) max.
	Velocity	515 meters/second (1000 knots) max.
	Acceleration	4g, max.
Power	Main power	5 VDC
	Power consumption	370 mW (continuous operation)
	Supply Current	75 mA
I/O Interface	Data Interface	RS232 with RJ11 connector
	Protocol messages	NMEA-0183@4800 bps (Default)

Note 1: Open Sky and Stationary Environments.

Environmental Characteristics

Content	Description
Operating temperature range	-30 deg. C to +70 deg. C
Storage temperature range	-40 deg. C to +70 deg. C

Physical Characteristics

Parameter	Description
Length	60 mm (2.36 in)
Width	60 mm (2.36 in)
Height	19 mm (0.75 in)
Weight	80 g
Cable Length	1.5M

Receiver Sensitivity

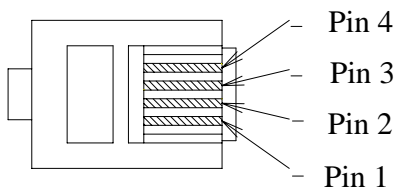
Parameter	Description
Tracking Sensitivity	-159 dBm
Acquisition Sensitivity	-142 dBm

Software Interface

The LR9450 receiver's serial data interface supports full duplex communication between the receiver and the user. The default serial supports different serial protocols modes are shown in below.

Protocol	Description
NMEA 0183, 4800 bps	GGA, GSA, GSV, GLL, RMC, VTG

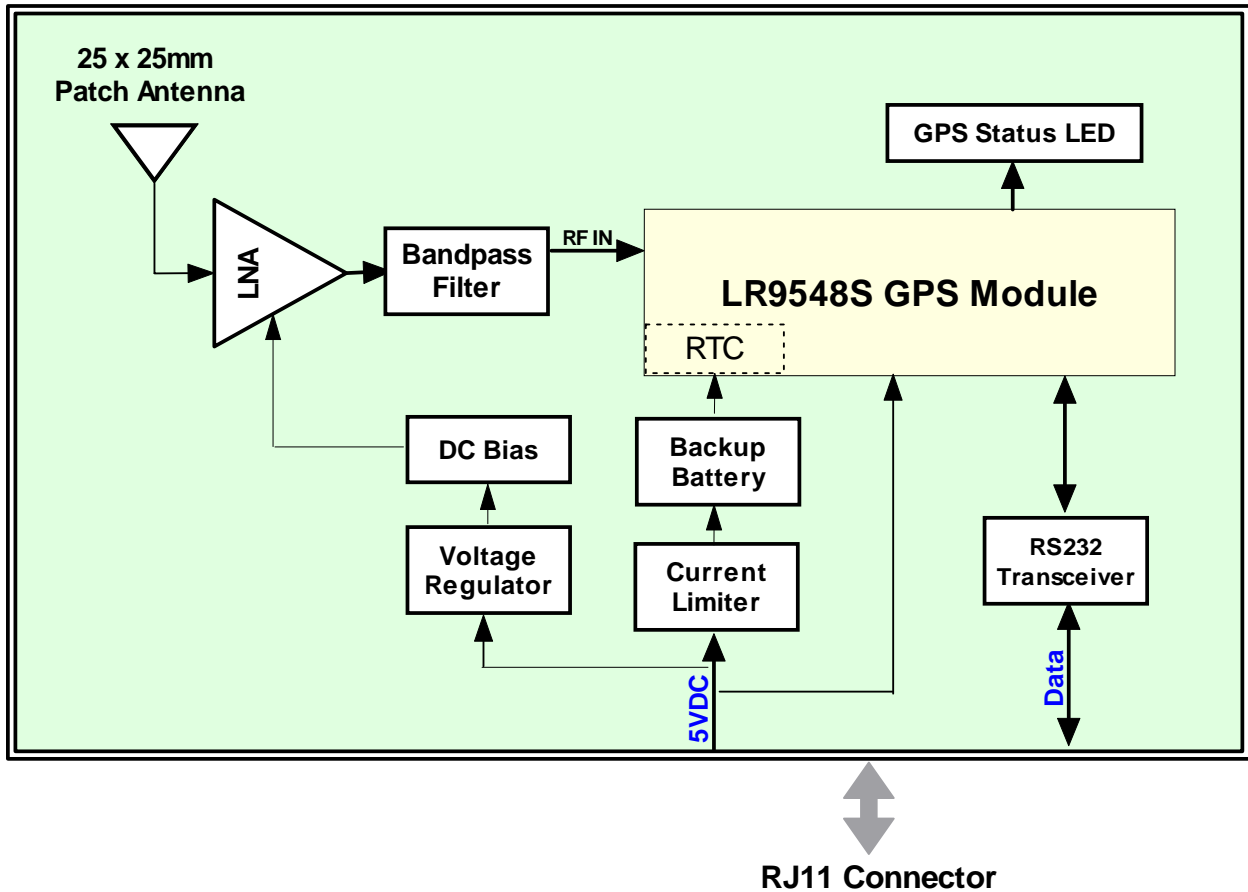
Pin assignment (4P)



Pin No.	Definition
Pin 4	GND
Pin 3	RX (RS232)
Pin 2	TX (RS232)
Pin 1	VCC

Block Diagram

9450(RS232) Block Diagram



Photo

