

LEADTEK GPS BLUETOOTH DATA LOGGER RECEIVER



LR9553D Specifications Sheet



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Introduction

The Leadtek LR9553D, based on cutting edge SiRFStar III technology, is a high performance, low power, 20-channel GPS data logger and receiver with wireless capability. As such it is a highly compatible Bluetooth solution with extraordinary configurability and sensitivity. Its battery life-of most concern to customers- has also been greatly improved thanks to the SiRFStar III LP (Low Power) chipset' s outstanding power saving capability in providing fast time-to-first-fix. Not to forget its appealing ergonomics—slim, compact and lightweight. The innovative switch-mode design not only makes for easy activation but also enables more power saving when LR9553D is used as a pure data logger which records your tracking data from the received GPS signals. It provides users enough space to store their tracking data including the altitude, GPS position, date and time- up to 240 hrs in the continuous mode. It is not necessary to export the data until the memory is full. LR9553D also comes equipped with mini USB interface both for easy charging and for users to be able to export their recorded points to Google earth and Google Maps without a hitch.

Hardware and Software

- Based on the high performance features of the SiRFStar III LP chipset
- Compliant with Bluetooth v1.2, class 2
- Serial Port Profile (SPP) supported
- Built-in Ceramic Patch Antenna
- Rechargeable Li-ion battery
- Operation time: 12 hours, in continuous mode
- Three LEDs to display the status of Bluetooth, GPS and power
- Data logger function, provides users the tracking data including the altitude, position, date and time (NMEA Format)

Performance

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

Interface

- USB-RDD for GPS communications interface
- Protocol: NMEA-0183/SiRF Binary (Default NMEA).
- Baud Rate: Default 38400 bps.

Specifications

Technical Performance

Feature	Item	Description
Chipset	GSW3	SiRFStarIII LP technology
General	Frequency	L1, 1575.42 MHz
	C/A code	1.023 MHz chip rate
	Channels	20
Accuracy	Position	10 meters, 2-D RMS
		5 meters 2-D RMS, WAAS corrected
		<5meters, 2-D RMS, DGPS corrected
	Velocity	0.1 meters/second
	Time	1 microsecond synchronized to GPS time
Datum	Default	WGS-84
Time to First Fix (TTFF) (Open Sky & Stationary Requirements)	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
Data Log	Switch mode	ON/OFF; Navi & Log; Log only
	Flash Memory	4MB
	Recording Interval	Every 15 sec. (User can configure settings)
	Waypoints	60,000 points (Position, Date, Time & Altitude)
	Duration	240 hrs (continuous usage)
Dynamic Conditions	Altitude	18,000 meters (60,000 feet) max.
	Velocity	515 meters/second (1000 knots) max.
	Acceleration	4g, max.
Power	Main power input	5±5%(10%)V DC input
	Power consumption	≈ 300 mW (continuous mode)

Interface

Interface Specifications

Items	Description
Power Recharge	Mini-USB connector

Bluetooth

Frequency	2.4GHz ISM Band
Compliant	Bluetooth Specification v 1.2
Compliant Profile	Series Port Profile (SPP)
Bluetooth Operation Range	10 M

Electrical

Main power input	5±5%(10%)V DC input
Power consumption	0.4W@3.3VDC (Full Power)
Backup Power	1.5±10%V DC input
Operation Time	12 hours (750mAh Li-Ion battery)

Battery Electrical

Battery Cell	Li-ion (750mA)
Output Voltage	3.2V~4.2V \pm 0.025V

LED

LED 1 (GPS)-Green			
State	Always on	Quick blinking	Slowly blinking
Description	Memory full to stop	3D fixed	GPS signal acquisition
LED 2 (Bluetooth)-Blue			
State	Quick blinking	Slowly blinking	No
Description	BT on, but not connected yet	BT connected	BT off
LED 3 (Power)-Red			
State	Always on	Quick blinking	No
Description	Battery is charging	Low power	Battery is fully charged

Environmental Characteristics

Items	Description
Operating temperature range	-10 deg. C to +50deg. C
Storage temperature range	-20 deg. C to +65 deg. C

Physical Characteristics

Items	Description
Length	60.2 mm (2.37 in)
Width	33.0 mm (1.30 in)
Height	17.8 mm (0.70 in)
Weight	48 g (including rechargeable battery)

Block Diagram

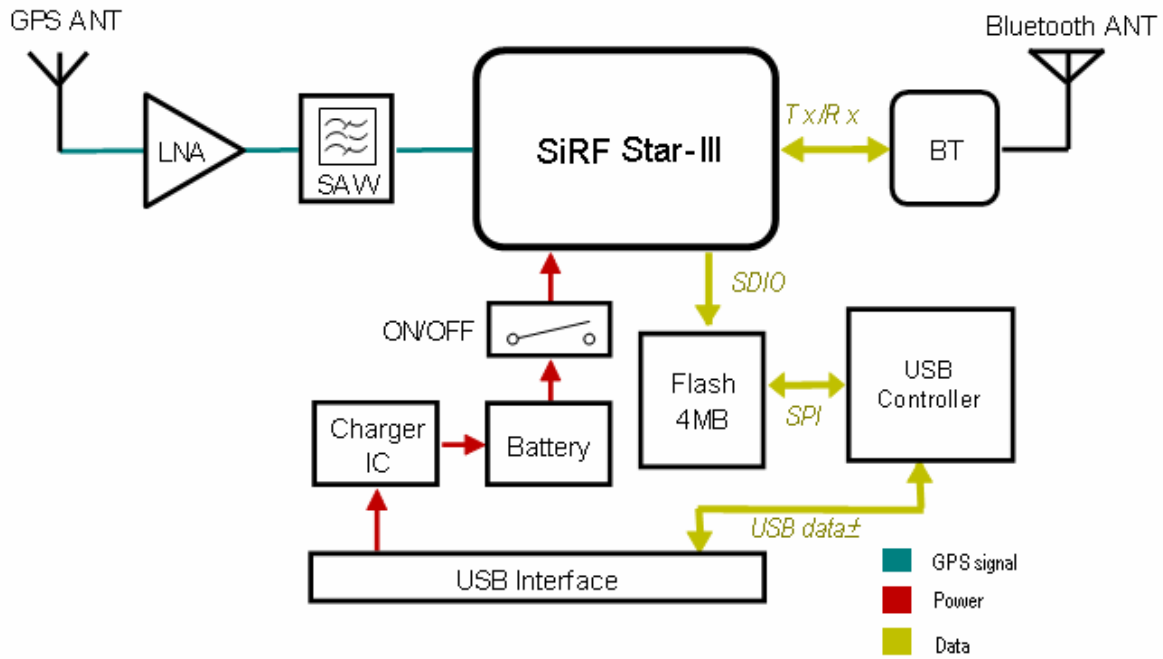


Photo Image



Packing list



CD-ROM



USB Cable



Car Charger



Neck eyelet strap



Quick Guide