

Performance Box Sport

RLPBMIC

The **PerformanceBox Sport** (RLPBMIC) is a small, splash proof (IP66) GPS data logger with a user-selectable log rate from 1 sample per minute to 10 samples per second.

It can be used to measure time, speed, distance, position, acceleration, height and vertical velocity and logs data to a removable Compact Flash card.

It features CAN Input and Output, USB interface for configuration, status LEDs and Compact Flash logging. The small form factor, ruggedness and flexible logging rates make the PerformanceBox Sport ideal for durability testing, motorcycles, boats, mining trucks and race cars.

Two versions are available.

The RLPBMIC01 featuring basic CAN connection to Racelogic units or single channel vehicle CAN.

The RLPBMIC01C allows you to connect to other manufacturer's CAN units and all available vehicle CAN channels.

A manufacturer's CAN dataset is supplied as standard.



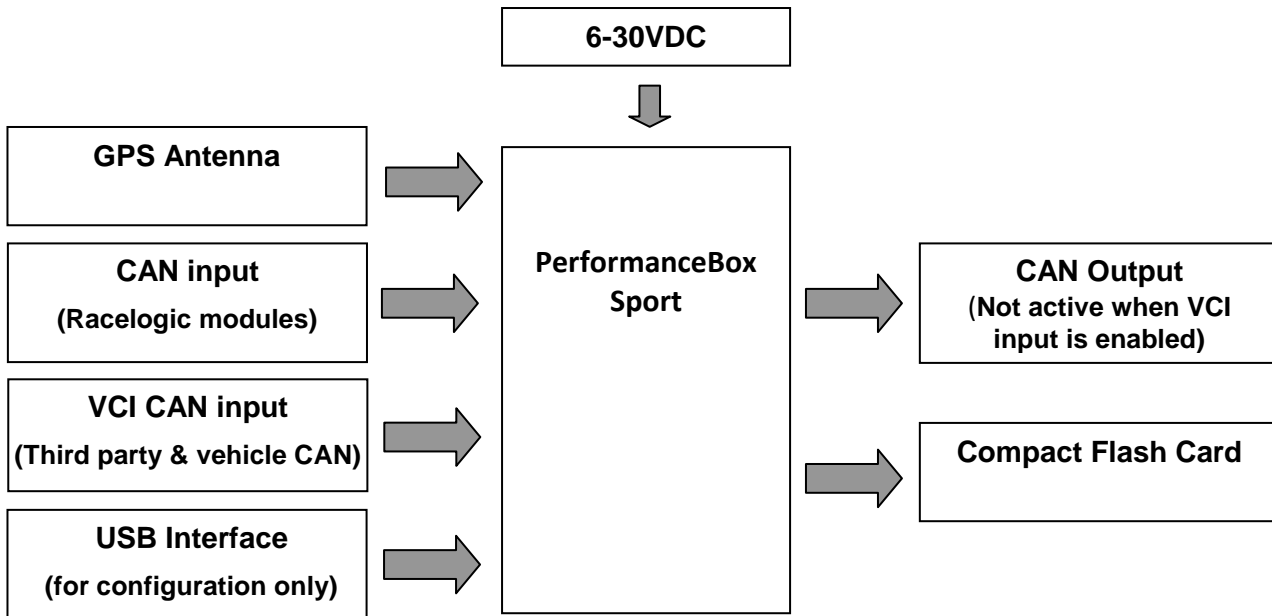
Features

- Non-contact speed and distance measurement using GPS
- Maximum 10Hz update rate
- User adjustable log rate from 100ms/sample to 60s/sample
- CAN Bus interface for connection to all VBOX input modules or single channel VCI (RLPBMIC01 version)
- VCI CAN input for connection to third party CAN modules and Vehicle CAN (RLPBMIC01C version)
- USB interface (for configuration only)
- Compact Flash card storage
- IP66 rated enclosure
- Logging of up to 13 GPS channels, plus module dependent CAN channels
- LED operational status indication
- Supplied with both VBOXTools and Performance Tools data analysis software

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Inputs and Outputs



Inputs

CAN Bus	
RLPBMIC01	CAN connection for Racelogic modules or single channel vehicle CAN.
VCI CAN	
RLPBMIC01C	Allows users to log incoming CAN data from other systems or vehicle CAN. Note: Unit does not connect to other Racelogic CAN modules when VCI CAN input is active

Outputs

CAN Bus	
Bit rate	125 kbit/s, 250kbit/s, 500kbit/s & 1Mbit/s selectable baud rate
Identifier type	Standard 11bit and Extended 29bit 2.0A
Data available	Satellites in view, UTC time, Latitude, Longitude, Speed, Heading, Altitude, Vertical velocity, Longitudinal acceleration, Lateral acceleration, Distance since reset

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GPS Specifications

Velocity		Distance	
Accuracy	0.2 Km/h (averaged over 4 samples)	Accuracy	0.05% (<50 cm per Km)
Units	Km/h or Mph	Units	Metres / Feet
Update rate	10 Hz	Maximum update rate	10 Hz
Maximum velocity	1600 Km/h	Resolution	1 cm
Minimum velocity	0.1 Km/h	Height accuracy	10 Metres 95% CEP*
Resolution	0.01 Km/h		
Latency	> 160ms		

Absolute Positioning		Time	
Accuracy	5m 95% CEP*	Accuracy	0.01 s
Update rate	10 Hz	Resolution	0.01 s
Resolution	1 cm		

* CEP = Circle of Error Probable. 95% CEP means 95% of the time the position readings will fall within a circle of the stated radius.

Acceleration		Environmental and physical	
Accuracy	1%	Weight	275 grams
Maximum	4 G	Size	105 mm x 85 mm x 30 mm
Resolution	0.01 G	Operating temperature	-10°C to +60°C
Maximum update rate	10 Hz	Storage temperature	-40°C to +85°C

Heading		Power	
Resolution	0.01°	Input Voltage Range	6 – 30V DC
Accuracy	0.2°	Current	Typically 70 mA

Memory	
Type	Compact Flash Card
Recording time	Dependent on CF card capacity. Approximately 3.67 KB per hour used while logging GPS channels at 60s per sample log rate.

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Hardware & Software Support

Support	
Hardware	One Year Support Contract
Software	Lifetime Support Contract: Valid for a minimum of 5 years from the date of purchase and limited to the original purchaser. Contract includes: telephone/ email technical support provided by local distributor and firmware/ software upgrades (where applicable).

Package Contents

Description	Product Code
10Hz Performance Box Sport unit or 10Hz Performance Box Sport with VCI unit	RLPBMIC01 / RLPBMIC01C
GPS antenna	RLACS018
12VDC cigar lighter to Fischer power lead (1m)	RLCAB010F
4GB Compact Flash card	RLACS098
USB A – Mini B Lead (2m)	RLCAB066-2
Carry case black (comes only with RLPBMIC02 or RLPBMIC01C)	RLACS108
User Manual	
Performance Tools and VBOX Tools analysis software (Windows based)	

