

# VBOX Micro 10Hz GPS data logger (RLVBMIC01C)



The **VBOX Micro** is a small, waterproof (IP66) GPS data logger with a user-selectable log rate from 1 sample per minute to 10 samples per second.

The VBOX Micro measures 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 VBOX Micro ideal for durability testing, motorcycles, boats, mining trucks and race cars.



The RLVBMIC01C allows connection to other manufacturer's CAN units and vehicle CAN. Racelogic's vehicle CAN database can be found online.

## Features

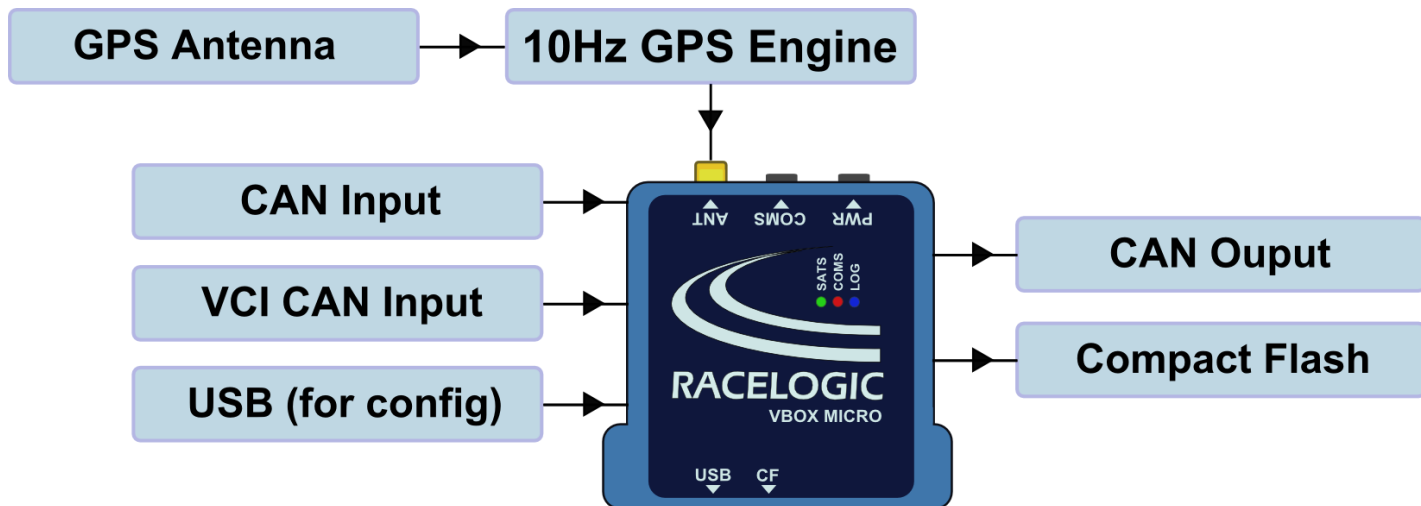
- Non-contact speed and distance measurement using GPS
- Maximum 10Hz Update rate
- User adjustable log rate from 100ms/sample to 60s/sample.
- CAN Bus interface for connection to all VBOX input modules
- 16 VCI CAN inputs for connection to third-party CAN modules and Vehicle CAN
- USB Interface (for configuration only)
- Compact Flash card storage
- IP66 rated enclosure
- Logging of up to 13 GPS channels, plus 16 external CAN channels (VCI or RL module)
- LED operational status indication
- Supplied with VBOX tools data analysis software

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## Inputs and Outputs



Inputs	Outputs
<p><b>CAN Bus</b> CAN connection for Racelogic modules only</p> <p><b>VCI CAN Bus</b> Allows the user to log up to 16 incoming CAN data channels from other systems. Note: Unit does not connect to other Racelogic CAN modules when VCI CAN input is active.</p>	<p><b>CAN Bus</b> Not active when VCI input is enabled Bit rate: 125kbit/s, 500kbit/s and 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.</p>

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## Specification

Velocity		Distance	
<b>Accuracy</b>	0.1 Km/h (averaged over 4 samples)	<b>Accuracy</b>	0.05 % (<50cm per Km)
<b>Units</b>	Km/h or Mph	<b>Units</b>	Metres / Feet
<b>Update rate</b>	10 Hz	<b>Update rate</b>	10 Hz
<b>Maximum velocity</b>	1000 Mph	<b>Resolution</b>	1 cm
<b>Minimum velocity</b>	0.1 Km/h		
<b>Resolution</b>	0.01 Km/h		
<b>Latency</b>	>160ms		

Absolute Positioning		Time	
<b>Accuracy</b>	3m 95% CEP*	<b>Accel/Brake Test (MFD/VBOX Tools)</b>	
<b>Height Accuracy</b>	10 Metres 95% CEP*	<b>Resolution</b>	0.01s
<b>Update rate</b>	10 Hz	<b>Accuracy</b>	0.1s
<b>Resolution</b>	1 cm	<b>Lap Timing (OLED/VBOX Tools)</b>	
		<b>Resolution</b>	0.01s
		<b>Accuracy</b>	0.01s

\*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	
<b>Accuracy</b>	1%	<b>Weight</b>	Approx. 275 grams
<b>Maximum</b>	4 G	<b>Size</b>	105 x 85 x 30mm
<b>Resolution</b>	0.01 G	<b>Operating temperature</b>	-10°C to +60°C
<b>Update rate</b>	10 Hz	<b>Storage temperature</b>	-40°C to +85°C

Heading		Memory	
<b>Resolution</b>	0.01°	<b>External Memory Support</b>	Compact Flash Card
<b>Accuracy</b>	0.1°	<b>Recording Time</b>	Dependant on CF capacity. Data logged at 123bits sample. Equates to approx 110 hours on a 512MB CF card logging all GPS channels at 10Hz.

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Power		
<b>Input Voltage Range</b>		6 - 30V DC
<b>Current</b>		Typically 70mA

## 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 VBOX Distributor and firmware/ software upgrades (where applicable).

## Package Contents

Description	Product Code
1 x VBOX Micro unit	VBMIC01C
1 x GPS antenna for VBOX	RLVBACS018
1 x VB Micro power lead	RLCAB010F
1 x Carry case	RLACS106
1 x USB A – Mini B lead 2M	RLCAB066-2
1 x 4GB Compact flash card	RLACS098
1 x CD ROM containing VBOX software	RLVBACS030
1 x VBOX Micro manual	VBMIC01MAN



VBMIC01C



RLVBACS018



RLCAB010F