

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

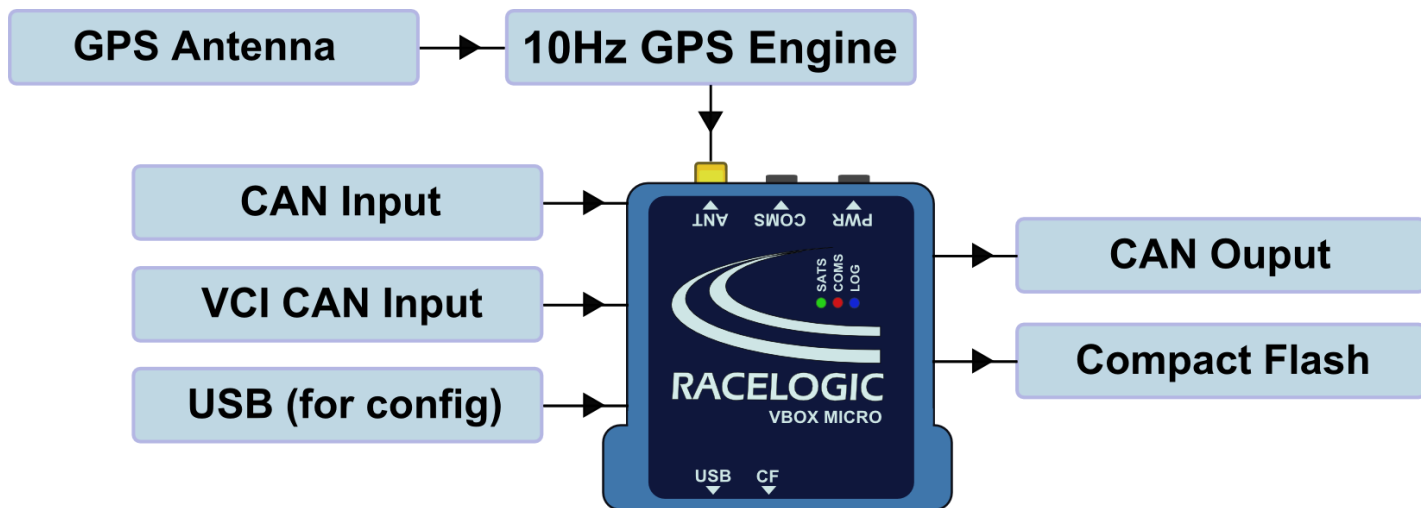
- Non-contact speed and distance measurement using GPS
- Maximum 10Hz Update rate
- User adjustable log rate from 100ms/sample to 60s/sample.
- CAN Bus interface for connection to all VBOX input modules – RLVBMIC01
- VCI CAN Input for connection to third party CAN modules and Vehicle CAN – RLVBMIC01C
- 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 VBOX tools data analysis software

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Inputs and Outputs



Inputs	Outputs
<p>CAN Bus CAN connection for Racelogic modules only</p> <p>VCI CAN Bus Allows the user to log incoming CAN data from other systems. Note: Unit does not connect to other Racelogic CAN modules when VCI CAN input is active.</p>	<p>CAN Bus Not active when VCI input is enabled</p> <p>Bit rate: 125kbit/s, 500kbit/s and 1Mbit/s selectable baud rate.</p> <p>Identifier type: Standard 11bit and extended 29bit 2.0A</p> <p>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	
Accuracy	0.2 Km/h (averaged over 4 samples)	Accuracy	0.05 % (<50cm per Km)
Units	Km/h or Mph	Units	Metres / Feet
Update rate	10 Hz	Update rate	10 Hz
Maximum velocity	1000 Mph	Resolution	1 cm
Minimum velocity	0.1 Km/h		
Resolution	0.01 Km/h		
Latency	>160ms		

Absolute Positioning		Time	
Accuracy	5m 95% CEP*	Accel/Brake Test (MFD/VBOX Tools)	
Height Accuracy	10 Metres 95% CEP*	Resolution	0.01s
Update rate	10 Hz	Accuracy	0.1s
Resolution	1 cm	Lap Timing (OLED/VBOX Tools)	
		Resolution	0.01s
		Accuracy	0.01s

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

Heading		Memory	
Resolution	0.01°	External Memory Support	Compact Flash Card
Accuracy	0.2°	Recording Time	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.

Definitions

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

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Power

Input Voltage Range

6 - 30V DC

Current

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