

VBOX Mini LapTimer

(RLVBLAPMINI-V1)



VBOX Mini LapTimer is a 10 Hz GNSS data logger and lap timing display in one. Its miniature design means that it is ideal for applications where there is limited space to mount lap timing devices, such as in a single-seater race car.

The Mini LapTimer provides instant feedback on the screen and via the bright LEDs, indicating where time is being lost and where time can be gained around a circuit.

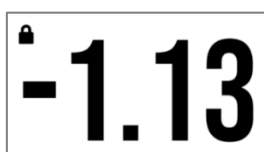


Display Options

The display has the option to inverse screen colours for use in different light conditions.



Inverted



Normal

Display Modes

VBOX Mini LapTimer has different display modes, which can be accessed using the up and down buttons. The data on each screen is always calculated, even if it is not displayed.

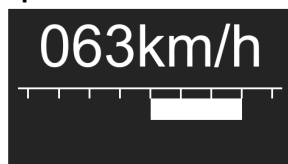
Live Speed



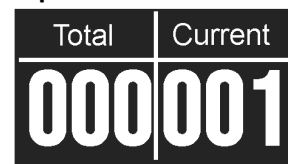
Max. Speed



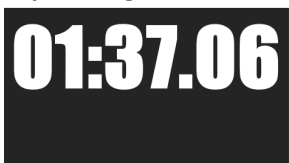
Speed Bar



Lap Count



Lap Timing



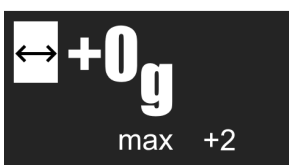
Lap Timing with Delta-T



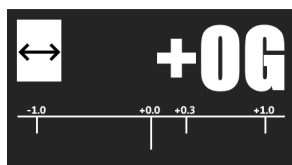
Predictive Lap Timing



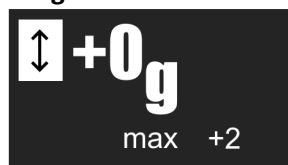
Lateral G



Lateral G Bar



Longitudinal G



Longitudinal G Bar




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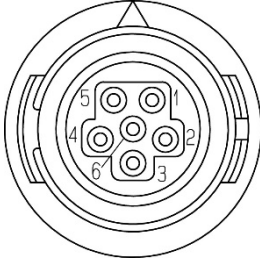


Connectors

GNSS Antenna Connector - SMA

	PIN	I/O	Function
	Centre	I	RF Signal / Power for active antenna
	Chassis	I	Ground

Can, Serial and Power - Hirose

	PIN	I/O	Function
	1	I	RX
	2	O	TX
	3	-	Ground
	4	I/O	CAN LOW
	5	I/O	CAN High
	6	-	Power



General Specification

Environmental and Physical	
Unit Connection	1x HR30 6w socket (Power & Data), 1 x SMA socket (GNSS Antenna)
IP Rating	IP65
Operating Temp	-20 to +70°C
Power	<1.5 W
Input Voltage	7 – 30 V DC
Dimensions	50 x 50 x 26.7 mm (exc. connectors)
Weight	103 g (excluding cables and accessories)

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GPS Specification

Velocity		Position	
Accuracy ¹	0.18 km/h	2D Position ²	2.5 m
Units	Km/h or mph	Height	±5 m
Update rate	10 Hz		
Maximum velocity	1800 km/h		
Minimum velocity	0.1 km/h		
Resolution	0.01 km/h		

¹ 50% @ 30 m/s

² CEP (Circle of Error Probable), 50%, 24 hours static, -130 dBm, > 6 SVs

Acceleration		Heading	
Accuracy	0.5 %	Resolution	0.01°
Maximum	4 G	Accuracy ¹	± 0.3°
Resolution	0.01 G		

Software

Windows software

Circuit Tools: Data analysis software

Package Contents

	Product Code
VBOX Mini LapTimer unit	VBLAPMINI-V1
External GPS/Glonass/Galileo Low Profile Antenna with RG-174 & SMA - 3m	RLACS262
Lightweight camera/display suction mount with thumb nut	RLACS287
Hirose 6W Plug - Cigar Plug - 2m cable	RLCAB165
8 GB SD Ultima Pro UHS-1 Memory Card	RLACS313