Video VBOX Pro (10 Hz)

RLVD10P

Video VBOX Pro combines a powerful GPS data logger with a high-quality multi-camera video recorder and real-time graphics engine.

Its 10 Hz GPS engine provides parameters such as circuit position, lap timing, speed (accurate to ±0.1 km/h), and acceleration. The optional 32-channel CAN interface retrieves vehicle data such as throttle angle, RPM, and brake pressure.

Video VBOX Pro streams the video onto a flash card or USB stick as a DVD quality MPEG-4 file.

Whether you need a system for race analysis, or for development and verification of Advanced Driver Assistance systems – **Video VBOX Pro** offers a new dimension to data logging.

Video VBOX 4 camera system used in Driver Experiences

Video VBOX 4 camera system used to test Blind Spot Detection

The setup software supplied with the system allows you to choose standard dashboard styles and maps or customise your own. The **VBOX Test Suite** software provides an intuitive way to analyse the data recorded by the system alongside the video.
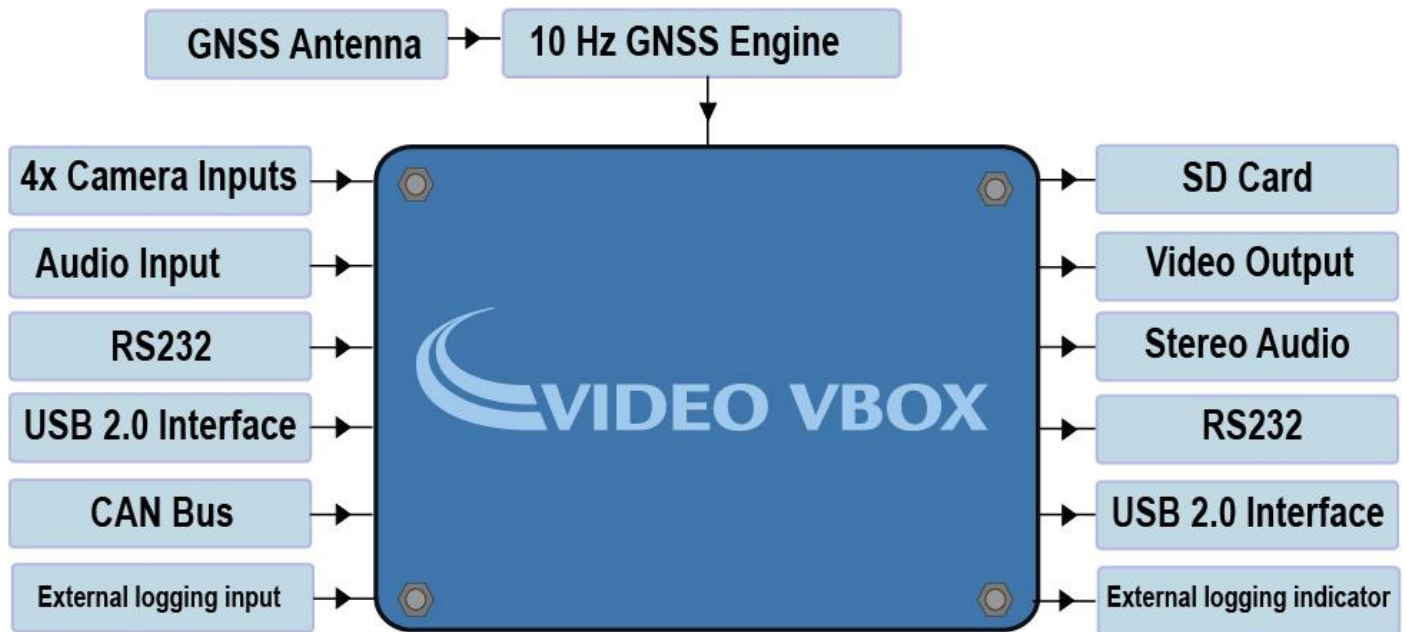
Features

- Built in 10 Hz GPS data logger
- Up to 4 camera inputs with configurable picture in picture
- Powerful yet intuitive graphics customisation and analysis software.
- 8 CAN channels (upgrade for 32 channels available)
- USB / SD Card logging and USB 2.0 interface
- Stereo Audio recording

- Customisable real-time graphics, including gauges, bar graphs, circuit plots, lap times, and text
- Preview over USB for camera and graphics set-up
- Robust, light aluminium enclosure with internal battery keeps logging even when power lost for up to 10 s
- Compatible with RACELOGIC input modules to log RPM and analogue inputs even in vehicles without CAN

Inputs and Outputs

Inputs	Outputs
4x Camera Inputs Integrated 12 V power. Picture-in-picture automatically selected when additional camera is detected.	**SD Card** 8 GB card supplied with device. The format used by Video VBOX is **FAT32**.
1x Audio Input Stereo or mono	**Video Output**
RS232	**Stereo Audio**
USB Video preview for camera set-up. SD card reading and setting parameters via a PC	**RS232**
CAN Bus Allows user to log vehicle CAN data: 8 Channels. Upgradeable to 32 CAN Channels.	**USB 2.0 Interface** Video preview for camera set-up. SD card reading and setting parameters via a PC
External Logging Input Additional module is required, e.g., Micro Input Module (MIC01)	**External Logging Indicator**

GPS Specifications

Velocity		Distance	
Accuracy	0.1 km/h (averaged) over 4 samples	Accuracy	0.05 % (<50 cm per km)
Units	km/h or mph	Units	m /ft
Update rate	10 Hz	Resolution	1 cm
Maximum velocity	1600 km/h		
Minimum velocity	0.1 km/h		
Resolution	0.01 km/h		
Latency	<160ms		

Position		Acceleration	
2D Position	±3 m 95% CEP *	Accuracy	1 %
Height	10 m 95% CEP *	Maximum	4 G
		Resolution	0.01 G

Heading		Lap Timing (OLED/ Circuit Tools)	
Resolution	0.01°	Resolution	0.01 s
Accuracy	0.1°	Accuracy	0.01 s **

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

** Not using DGPS and crossing the start/finish line at 100 km/h

VBOX MOTORSPORT

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Graphics, Sound and Storage

Recording Options
Record only when moving (default); Continuous record; Record start/stop button; Record activated by external signal e.g., CAN wheel speed.

Graphics
24-bit colour plus 256 levels of alpha transparency
Virtually unlimited number of gauges, g-plots, bar graphs, track maps, text, and images
Choose from the internal GPS parameters or external CAN/Serial parameters
Standard library of gauges, fonts etc.
User-definable gauges, fonts, etc.
Alerts: Text and images can change when a parameter is over/under the desired limit

Resolution Options
• DVD 720 x 576 at 25 frames per second PAL (default)
• DVD 720 x 480 at 30 frames per second NTSC

Sound
External microphone connection
MP2 (MPEG1 Layer II) encoded into video stream
Stereo audio output with automatic gain control + Line level input

Compression Options
3 levels of quality – High (default), Medium and Low
Depending on content, rates typically 2MB/s, 0.5MB/s or 0.25MB/s for full frame DVD

Memory usage
For full quality DVD using MPEG-4 set to High quality. Uses approx. 2 GB/hr

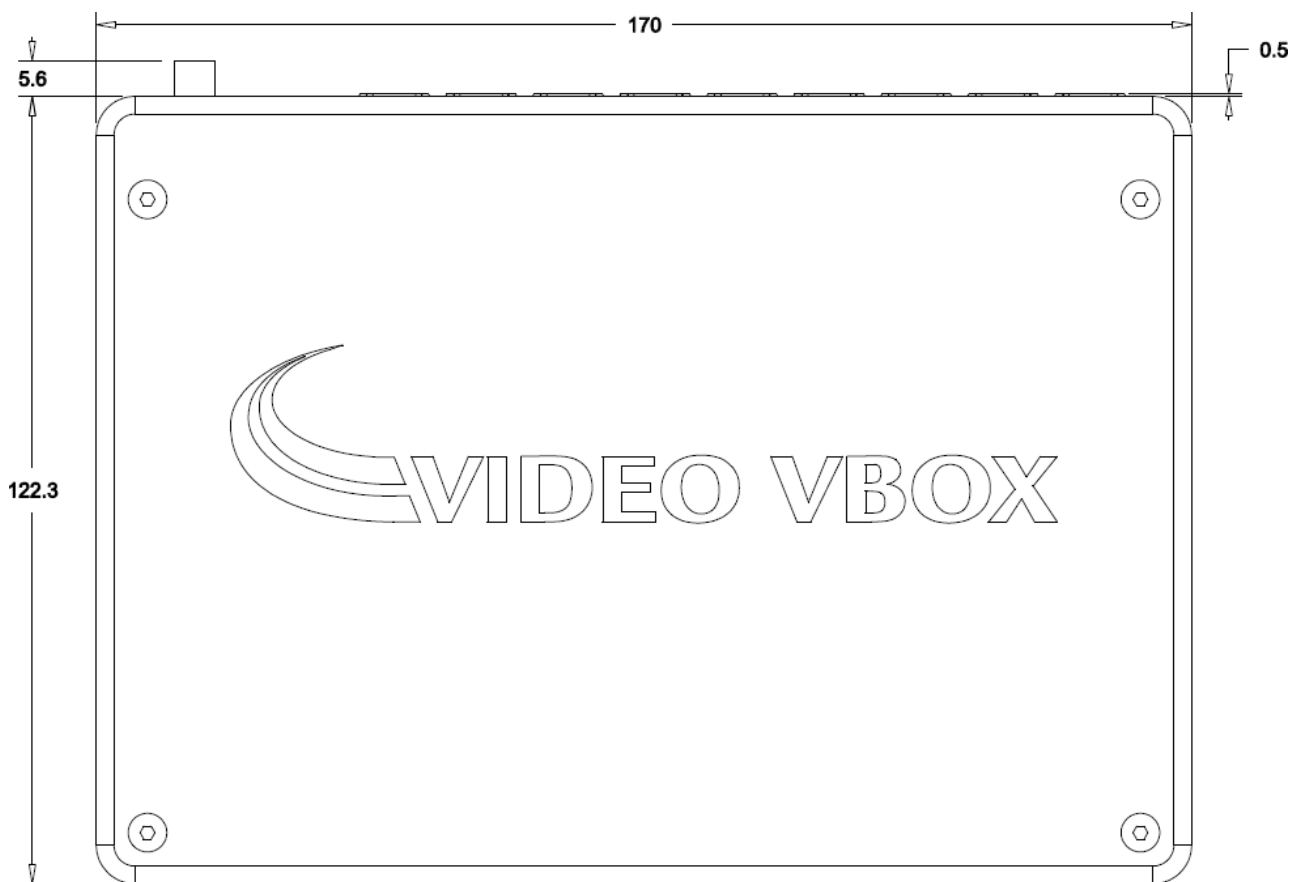| Storage Options |
|---|
| SD card (Fast SD card required for Max and Super quality settings) |
| Optional USB adaptor for USB flash drives |

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Environmental and Physical

Environmental and Physical			
Input Voltage	9 – 15 V (12 V minimum required for recording)	Size	170mmx122mmx33mm
Power	7.2 W Max	Weight	700 g
Operating temperature	-10°C to +60°C	Storage temperature	-40°C to +85°C

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Software

Windows software	
Video VBOX Setup: Configurable software for customising scenes	
Circuit Tools / VBOX Test Suite: Data analysis software	

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 Video VBOX Pro (with full VCI)	VD10P
1x Cigar plug power cable (2 m)	RLCAB010LE
1x Unterminated power supply (2 m)	RLCAB015L
1x Country-specific mains power supply	RLVBACS020
1x External GPS Antenna (5 m cable)	RLVBACS018
1x 8 GB SD Card	RLACS259
1x USB configuration cable (2 m)	RLCAB072
4x or 2x Sony 580TVL cameras - inc. light weight suction mounts	RLACS140
4x or 2x Forward facing camera mounting ring	RLACS116
4x or 2x Dual mono Microphone (2.5 m lead)	RLACS133
2x or 1x Stereo Audio Input Splitter	RLCAB095
1x Carry Case	RLACS117

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