VIDEO VBOX LITE

Powerful VBOX data-logging and video technology in a user-friendly, affordable product

Video VBOX Lite is a one box solution, incorporating a solid state video recorder, a VBOX 10Hz GPS data-logger and a real time graphic overlay. This combination allows users to carry out detailed driver training and vehicle analysis without the expense and specialised knowledge involved in professional level data-loggers.

Based on the high end Video VBOX, **Video VBOX Lite** is a more affordable version of what Video VBOX users have called the ultimate track video system. Housed in a rugged plastic box, with a smaller footprint than the **VideoVBOX Pro**, **Video VBOX Lite** shares many of the same features as the top of the range product.

What can Video VBOX Lite do?

Video VBOX Lite takes the video captured from multiple waterproof cameras and combines it with a customisable graphic overlay, streaming the resulting video onto an SD card as a DVD quality MPEG4 file. A 10Hz GPS engine provides information such as circuit position, lap timing, speed (accurate to ±0.2km/h) and acceleration, whilst a single CAN channel can retrieve data such as RPM. CAN upgrades are also available to give a total of 2 (only available for systems with one active CAN) or 8 channels.

The data is seamlessly integrated with real time graphics, meaning that video game style dials and gauges can be shown on the multi-camera video, with the option to fully customise the graphics using the included **Video VBOX Lite Setup** software.

Lap by lap and comparison analysis is performed with the included **Circuit Tools** software. For deeper analysis you can also download **VBOX Tools** software after unit registration. **Video VBOX Lite** is also compatible with the **Micro Input Module**, which provides inputs for 4 analogue voltage channels and an RPM channel.

Using **Video VBOX Lite** is quick and easy. Simply connect the cameras and the GPS antenna, insert the SD card and drive.

(LEFT: Video VBOX Lite screenshot from the Australian GT)

Features

- Built in 10Hz GPS data logger
- 2 camera inputs with configurable picture in picture
- Powerful yet intuitive graphics customisation and analysis software.
- 580L and 420L Bullet Cameras (optional)
- 4 CAN channels (upgrade for 8 channels available)
- SD Card logging and USB 2.0 interface
- Stereo Audio recording
- MPEG4 encoding – approx 2GB per hour DVD quality, PAL or NTSC format
- Customisable real-time graphics, including gauges, bar graphs, circuit plots, lap times, and text
- Preview over USB for camera and graphics set-up
- Small and rugged plastic enclosure with internal battery: keeps logging even when power lost for up to 10 seconds
- Compatible with Racelogic input modules to log RPM and analogue inputs even in vehicles without CAN

VIDEO VBOX LITE
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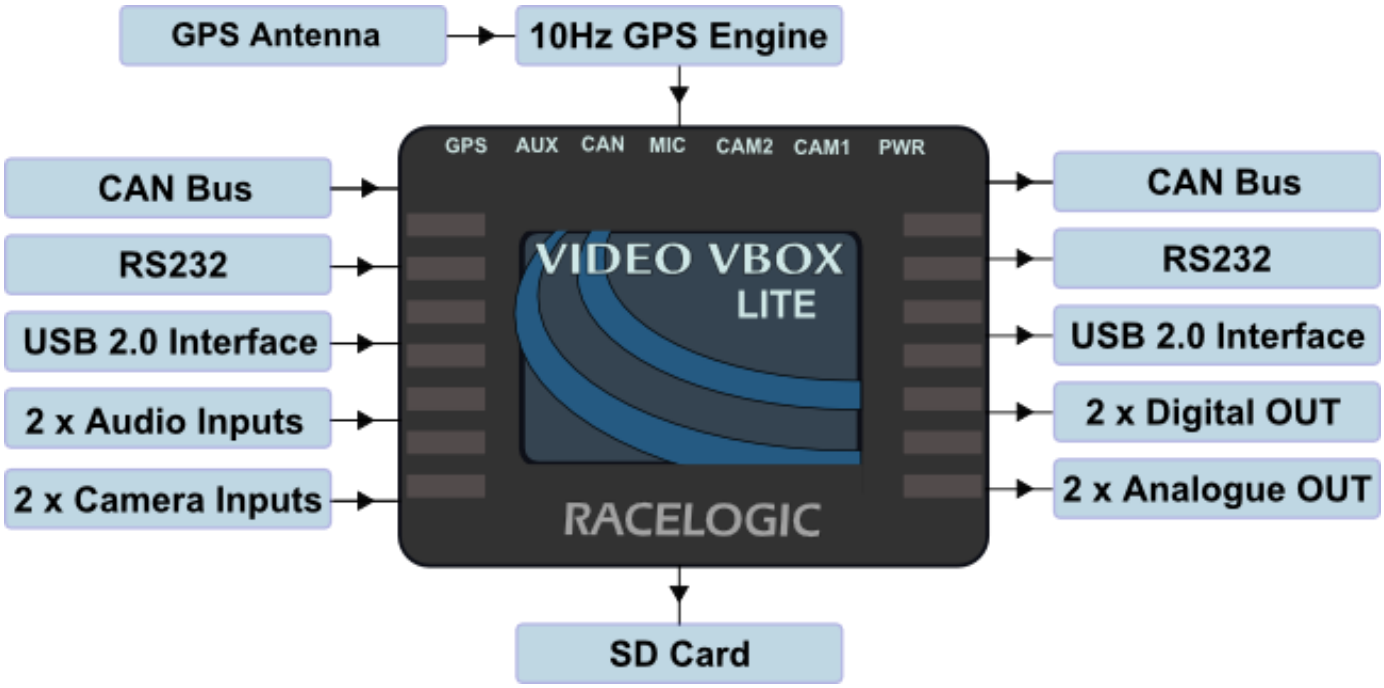
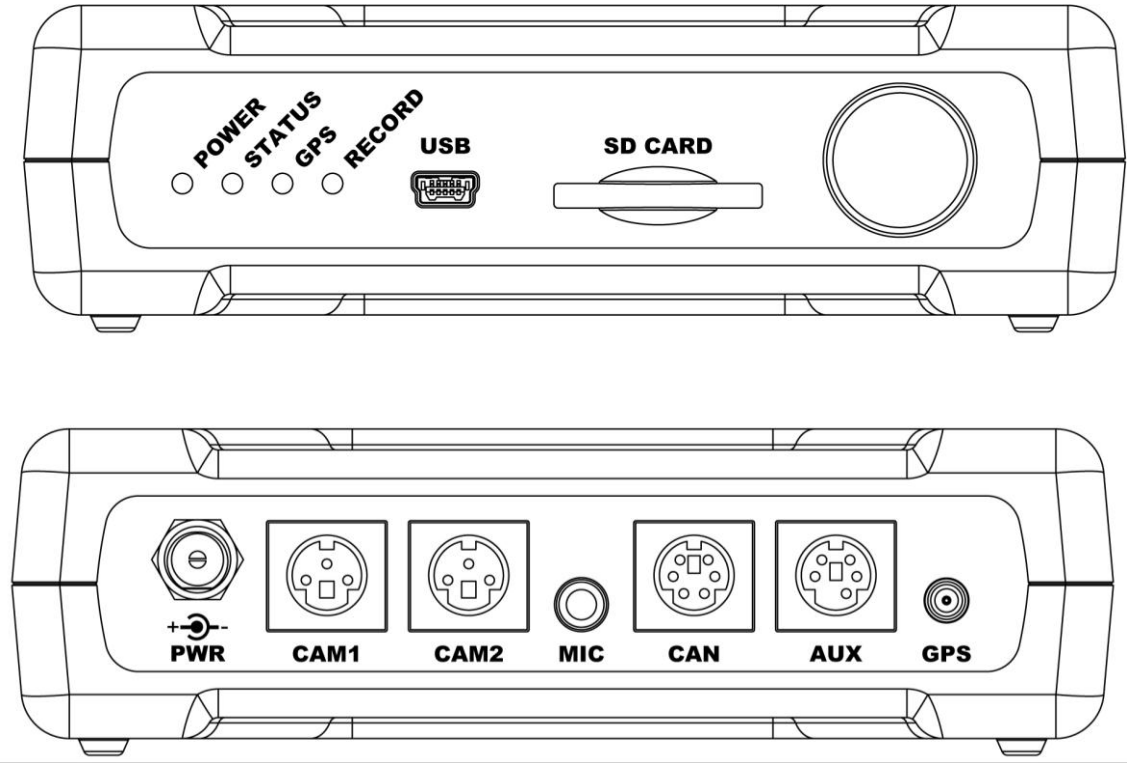
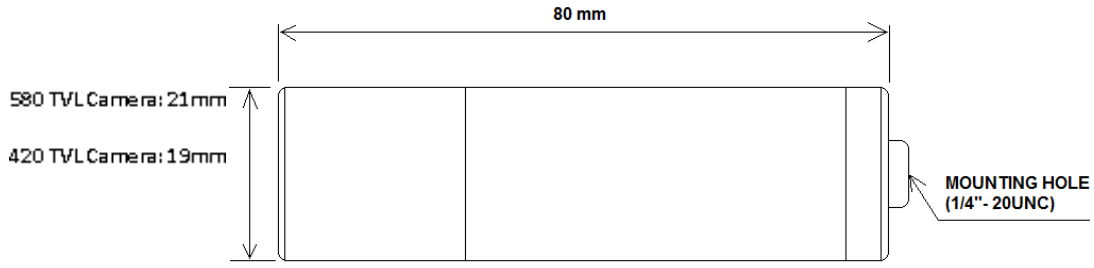


Inputs and Outputs

Inputs	Outputs
2x Camera Inputs (Optional) Integrated 12v power. Picture-in-picture automatically selected when additional camera is detected.	**SD Card** 4Gb card supplied with device
2x Audio Inputs	**Video Output**
RS232	**Stereo Audio**
USB Video streaming for camera set-up & preview. SD card reading and setting parameters via a PC	**USB** Video streaming for camera set-up & preview. SD card reading and setting parameters via a PC
CAN Bus Allows user to log vehicle CAN data: 4 Channels. Upgradeable to 8 CAN Channels.	



Bullet Cameras



VIDEO VBOX LITE

GPS Specifications

Velocity		Distance	
Accuracy	0.2 Km/h (averaged)	**Accuracy**	0.05 % (<50cm per Km)
Units	Km/h or Mph	**Units**	Metres / Feet
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	±5m 95% CEP *	**Accuracy**	0.05 %
Height	10 Metres 95% CEP *	**Maximum**	4 G
		Resolution	0.01 G

Heading		Lap Timing (OLED/ Circuit Tools)	
Resolution	0.01°	**Resolution**	0.01 s
Accuracy	0.2°	**Accuracy**	0.01 s **

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

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

Graphics, Sound and Storage

Recording Options
Record only when moving (default); Continuous record; Record start/stop button

Graphics
24bit 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

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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. 2GB/hr

Environmental and Physical

Environmental and Physical			
Input Voltage	9 – 15 V	**Size**	130mmx122mmx37mm
Power	7.2 W Max	**Weight**	267g
Operating temperature	-10°C to +60°C	**Storage temperature**	-40°C to +85°C

Software

Windows software
Video VBOX Setup: Configurable software for customising scenes
Circuit Tools (VBOX Tools available after registration): 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).

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Package Contents

(Two Camera Kit)

Description	Product Code
1 x Video VBOX Lite	RLVBVD10LT
1x Cigar plug power cable (2m)	RLVBVD10LT
1x External GPS Antenna	RLACS070
1x 4GB SD Card	RLACS137
1x USB 2 meter lead	RLCAB066-2
1x Sony 580TVL camera kit – inc. light weight mount	RLACS134
1x Sony 420TVL camera kit (with Hirose connector) – inc. light weight mount	RLACS135
2x Dual mono Microphone (2.5m lead)	RLACS133
1x Forward facing camera mount	RLACS116

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