VBOX AUTOMOTIVE

Industry leading GNSS, Inertial and Indoor Positioning Systems

Product Catalogue

Version: 1.1

vboxautomotive.com

VBOX 4

The all-new **VBOX 4** is engineered for versatility and excels at a wide range of automotive testing applications including brake testing, ADAS sensor validation and high-dynamic tests.

- A 100 Hz, multi-constellation GNSS receiver ensures high-accuracy data
- Integrates with an IMU05 and wheel speed data to create a robust INS
- Ethernet compatibility offers easy integration with all types of driving robots
- Full CAN bus logging, including CAN FD, for comprehensive data analysis
- Supports rapid data transfer options, including serial, USB, and SD Card

VBOX IMU05

IMU05 utilises cutting-edge technology to provide a significant advancement in accuracy and ease of use, while maintaining a cost-effective price point.

- Straight-line initialisation eliminates the need for extensive pre-test configuration
- Integrates with **VBOX 4** to create a highly accurate Inertial Navigation System

	IMU05	IMU05-S
Bias Stability	1.2°/hr	0.8°/hr
Pitch and Roll	0.02°	0.013°
Yaw	0.1°	0.07°

VBOX 3i SDR

The compact **VBOX 3i SDR** is an advanced GNSS-aided Inertial Navigation System (INS) with integrated IMU ideal for brake, tyre and performance testing.

- Equipped with a 100 Hz, multi-constellation, multi-frequency, GNSS receiver
- Cost-efficient and highly effective for use in multi-target ADAS testing
- Versatile motion pack solution, providing speed, position and attitude data
- Features dual antennas and RTK for ADAS, handling and dynamics testing
- Connects via Serial, Ethernet or CAN interfaces for simple integration

VBOX TOUCH RTK

Versatile data logger offering robust centimetre-level positional accuracy and the precise measurement of speed and distance.

- Large, colour touchscreen for easy set-up and live results in the field
- Access a wide range of free Apps available to download from the App Store
- Ideal for trigger-activated deceleration tests with high accuracy
- 5 cm stopping distance accuracy (using brake trigger & external antenna)
- Link two systems for active vehicle separation measurements

ADAS SENSORS

VBOX ADAS SENSORS capture acoustic and optical alerts and signals generated by the vehicle's ADAS to log the exact moment a vehicle safety message is presented to the driver.

- Fully compliant with UNECE and Euro NCAP standards, ensuring adherence to the latest safety regulations
- The **VBOX AUDIO SENSOR** differentiates between ambient noise and target sounds including high-frequency haptic warnings
- The **VBOX VISUAL SENSOR** outputs directly to a data logger or driving robot for live reactions to warnings

MOTION PACKS

VBOX systems are compatible with driving robots from leading manufacturers, offering repeatable and consistent testing, for applications that require precise path following.

- **VBOX MOTION PACKS** provide a cost-effective solution for robot-integrated testing without compromising on accuracy
- Unique versatility allows for testing in various environments, whether outdoors, indoors, or a combination of both
- Seamless integration with **VBOX** high-end video products accurately synchronises data with up to 4 external video sources to 1/100th of a second

PEDAL FORCE SENSOR

Accurately measure the force applied to a pedal and capture the precise moment pressure is detected.

- Measure pedal force and application to SAE J2909 and ECE R13-H standards
- Universal mount provides easy installation on all types of vehicle pedals
- Built-in strain gauge amplifier ensures accurate testing

STEERING SENSOR

Measure a vehicle's steering angle or torque with this easy to install, universal, ISO 17025 calibrated sensor.

- Available in three variants of torque; 50, 100 or 200 Nm
- Ideal for regulatory tests including ECE R79, ISO 4138 and ISO 7401
- Accurate response with a fine resolution of steer angle (0.1°)

WHEEL SPEED SENSOR

Accurately measure wheel speeds up to 100 times a second with universal installation suitable for a range of vehicle types.

- Wireless technology ensures easy and fast installation
- Two integrated thermocouples capture temperature data
- Straightforward integration with data loggers via CAN output

NTRIP MODEM

Receive RTK correction data via the internet for an increased range of test locations with cm-level accuracy.

- Removes the need to operate a fixed base station
- No radio interference or limitation on communication range
- Access public or commercial RTK Networks via the internet

VBOX SIGMA

A cost-effective, RTK-enabled data logger with integrated NTRIP modem and multi-constellation, multi-frequency GNSS receiver.

- Ideal reference for ground truth with reliable centimetre-level accuracy
- Robust RTK performance even in challenging satellite conditions
- Receive RTK correction messages from an NTRIP network or base station

MFD TOUCH

The Multi-Function Touch Display (MFD Touch) is the perfect **VBOX** accessory to monitor one or more parameters live in the vehicle.

- Display up to six GNSS/CAN-derived data parameters simultaneously
- Audio and visual alerts show when a user defined data condition has been met

VBOX VIDEO HD2

VBOX VIDEO HD2 delivers synchronised data and video recording in full HD at 30 frames per second providing a real-time visual reference.

- 25 Hz GPS receiver and dual 1080p cameras
- Show measured parameters using a real-time graphic overlay
- Log up to 80 channels of vehicle CAN data
- Live stream video to an HDMI compatible monitor, recorder or streaming device
- Analyse data with synchronised video footage in **VBOX TEST SUITE**

VBOX INDOOR POSITIONING SYSTEM

A highly accurate way of measuring speed, position and attitude (pitch/roll/yaw) in areas where GNSS is not available.

- 100 Hz dynamic measurement of up to 5 targets
- RTK equivalent centimetre-level accuracy
- Compatible with steering robots
- Multi-level and indoor/outdoor transitions
- Flexible installation options

ADDITIONAL SERVICES

VBOX AUTOMOTIVE prides itself on delivering complete solutions to customers. Designed and manufactured by in-house engineers, every **VBOX** is conceived and developed with the end-user in mind. This attention to detail and customer focus doesn't end when ownership starts.

- **Free Lifetime Support** - Exceptional customer support is provided free of charge with no support contracts, including all future firmware/software updates
- **Calibration Service** - ***RACELOGIC*** is an accredited ISO calibration laboratory and offer a reliable and fast calibration service including ISO 17025
- **Global Distributor Partners** – A global network of sales and service partners provide a local point of contact for product information, support and sales

CONTACT US

Whether you have a question about a product, require support for your current **VBOX** solution, or require further information, please feel free to get in touch.

RACELOGIC UK

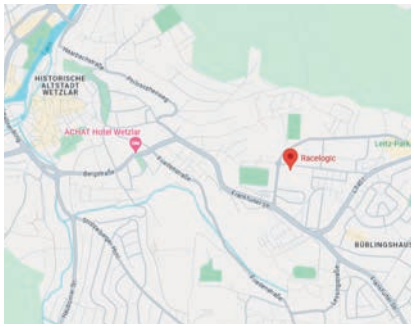
Unit 10-11
Swan Business Centre,
Osier Way, Buckingham,
MK18 1TB

+44 1280 823803
sales@racelogic.co.uk
support@racelogic.co.uk

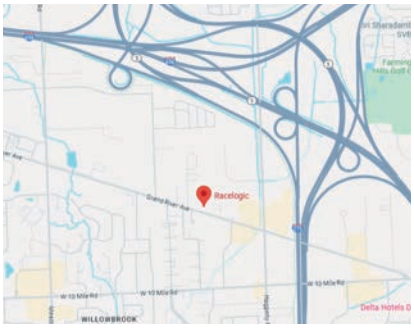
RACELOGIC GmbH

Schanzenfeldstraße 2,
35578 Wetzlar,
Germany

+49 6441 9522220
sales@racelogic.de
support@racelogic.de



RACELOGIC USA

40000 Grand River Ave,
Suite 100 Novi,
MI 48375-2133

+1 248 994 9050
sales@racelogic.com
support@racelogic.com