



RT3000 v3

High performance GNSS/INS for ADAS and Autonomous vehicle testing

The RT3000 v3 combines the best of GNSS positioning technology with a high-grade IMU to deliver robust performance in all environments.

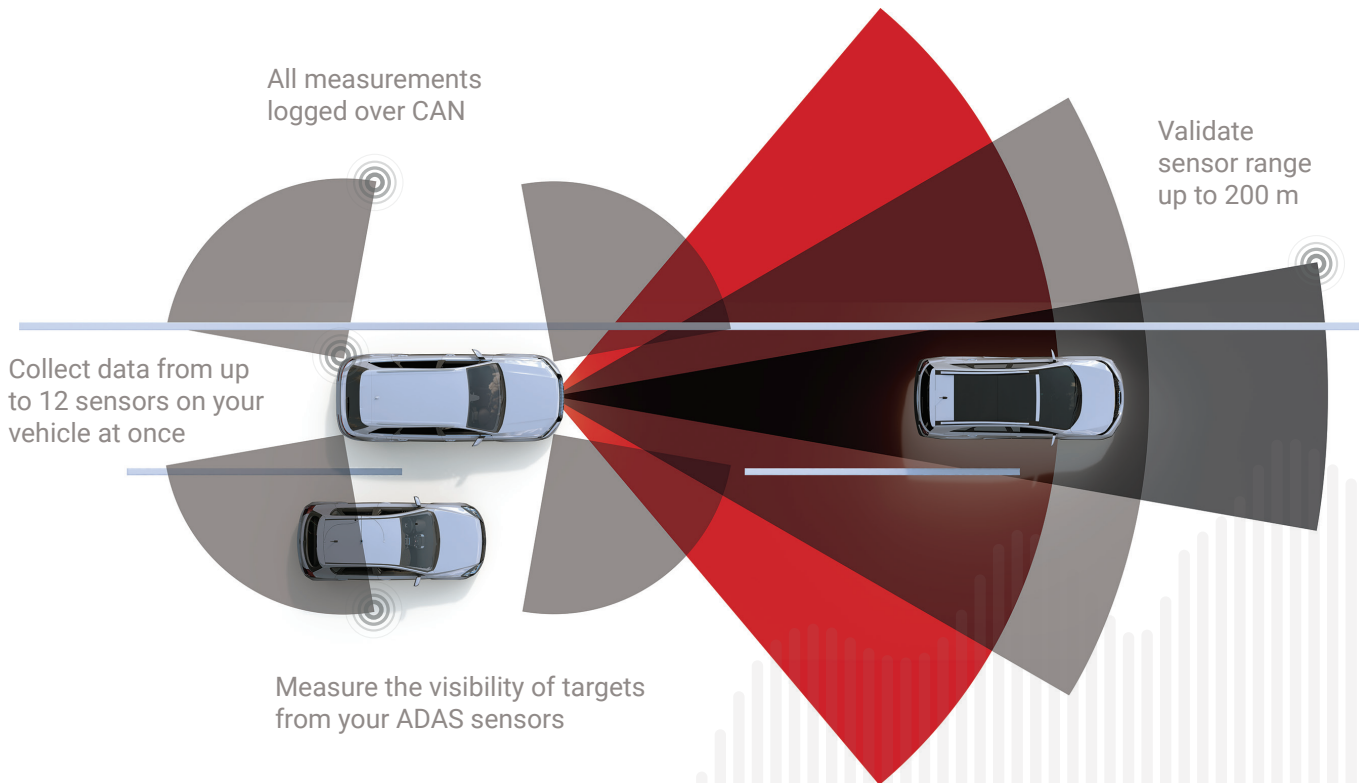
Trusted globally for ground truth measurements in:

- / Vehicle dynamics testing
- / Driving robot path following
- / Euro NCAP ADAS testing
- / NHTSA testing
- / Autonomous vehicle validation

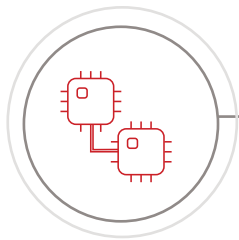


Now with onboard RT-Range S Hunter capabilities

The RT3000 v3 comes with optional RT-Range Hunter capabilities for ADAS testing. Track up to 4 moving targets, knowing their position, orientation, speed and acceleration relative to the vehicle under test. It all happens on one device meaning reduced setup times and less hassle.



Same high performance. Improved accessibility.



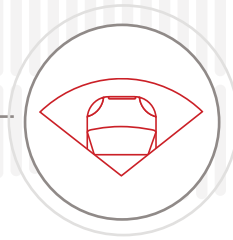
NEW CAN-FD interface

- / High speed GNSS for high dynamic conditions
- / RTK 1 cm position accuracy
- / 0.03° pitch/roll accuracy
- / 0.150° slip angle accuracy



NEW Quad-GNSS support included

- / Driving robot interface
- / Up to 250 Hz data output rate
- / **NEW** GPS, GLONASS, Beidou and Galileo included as standard
- / Wheel speed input



NEW optional onboard RT-Range S Hunter processor

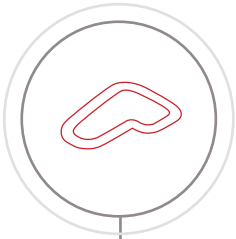
- / Dual antenna
- / Integrated NTRIP client to receive corrections on the open road

Options

- / **NEW** PTP Precision Time Protocol
- / Network DGPS
- / **NEW** onboard RT-Range S Hunter processor for ADAS testing
- / CAN acquisition
- / ISO 17025 calibration

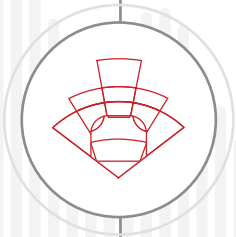
Software features tailored to your application

OxTS hardware comes pre-loaded with several features that tune and enhance the raw data output to meet requirements for specific applications. Over the years we've added to our portfolio of features. These are categorised into three areas: Track testing features, ADAS testing features and open-road features.



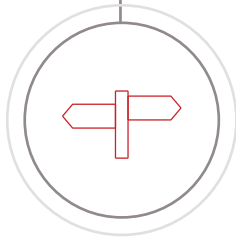
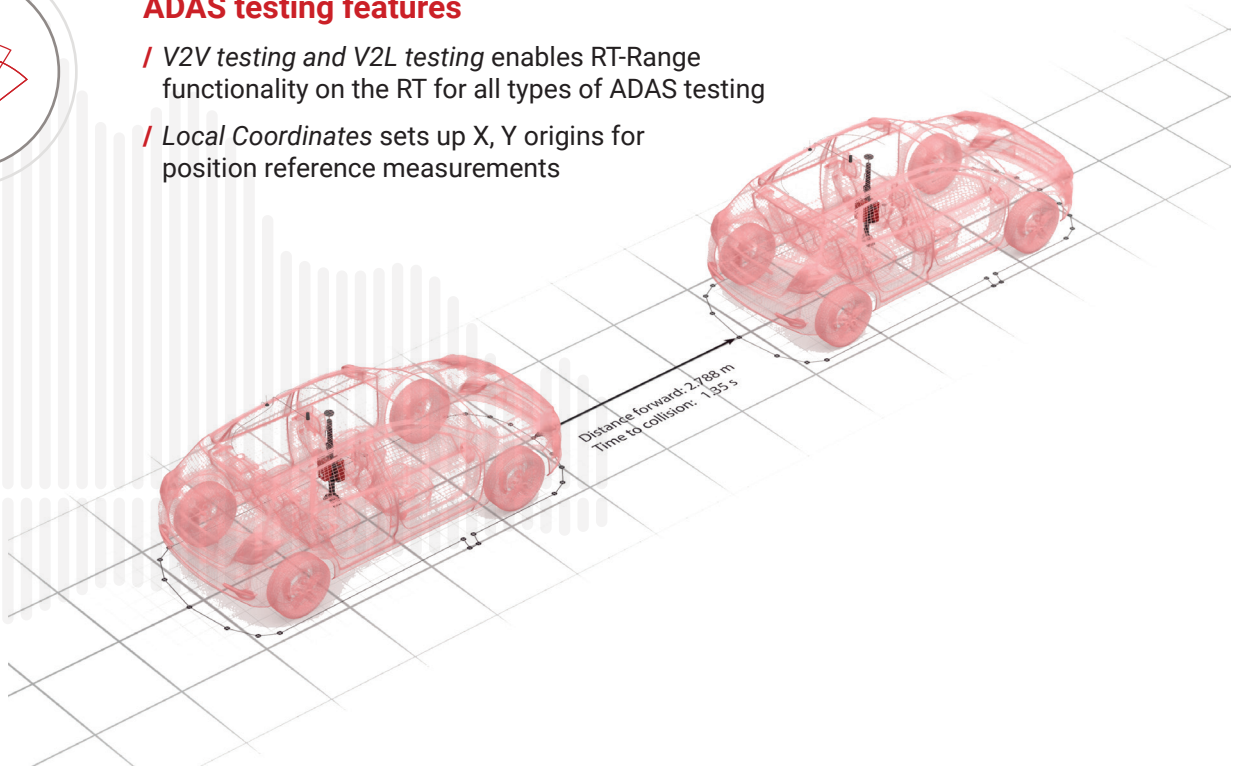
Test track testing features

- / *Multiple Slip Points* allows you to measure slip angle from up to eight reference points
- / *Angular and Linear Acceleration Filters* reduce unwanted noise
- / *Surface Tilt* - where roll and pitch measurements are compared to an incline
- / *Robot interface* provides a direct navigation interface for path following



ADAS testing features

- / *V2V testing and V2L testing* enables RT-Range functionality on the RT for all types of ADAS testing
- / *Local Coordinates* sets up X, Y origins for position reference measurements



Open-road testing features

- / *Our GNSS/INS tight coupling technology, gx/ix™ RTK*, improves position accuracy poor GNSS environments such as urban canyons.
- / *Wheel Speed Odometer* interface reduces position drift by inputting velocity updates in real-time into our navigation solution.
- / *Quad-GNSS* improves position data accuracy by providing increased satellite coverage along your test route.

Hardware

GPS+GLONASS+Galileo+BeiDou

RT3000 L1 only

RT3000

Performance¹

Positioning	L1	L1, L2, B1, B2, E1, E5
Position accuracy (CEP)		
SPS	1.8 m	1.5 m
SBAS	0.6 m	0.6 m
DGPS	0.4 m	0.4 m
RTK		0.01 m
Velocity accuracy (RMS)	0.1 km/h	0.05 km/h
Roll/pitch accuracy (1 σ)	0.05°	0.03°
Heading accuracy (1 σ) ²	0.1°	0.1°
Track angle accuracy (1 σ) ³	0.1°	0.07°
Slip angle accuracy (1 σ) ⁴	0.2°	0.15°
Dual antenna	✗	✓

Hardware

Dimensions	184 x 120 x 71 mm
Mass	1.4 kg
Input voltage	10-50 V dc
Power consumption	15 W
Operating temperature	-40° to +70°C
Environmental protection	IP65
Vibration	0.1 g ² /Hz, 5-500 Hz
Shock survival	100 g, 11 ms
Internal storage	32 GB

Sensors

Type	Accelerometers	Gyros
Technology	Servo	MEMS
Range Optional	10 g 30 g	100°/s 300°/s
Bias stability	2 μ g	2°/hr
Linearity	0.01%	0.05% ⁵
Scale factor	0.1%	0.1%
Random walk	0.005 m/s/ \sqrt hr	0.2°/ \sqrt hr
Axis alignment	<0.05°	<0.05°

¹ Valid for open sky conditions.

² Dual antenna heading valid for 2 m antenna separation. Wider separation will improve accuracy. Supports up to 5 m separation.

^{3/4} At 50km/h.

⁵ With SuperCAL adjustment.



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in automotive testing
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