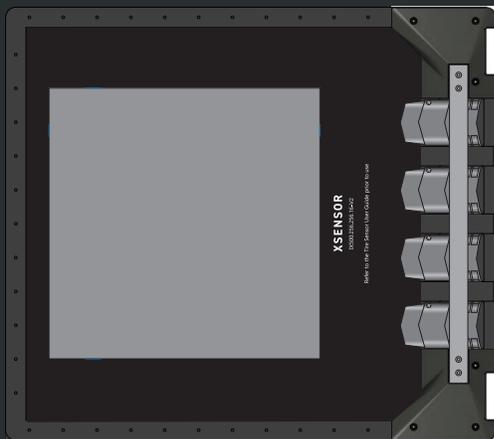


X3 PCR/TBR Tire System

Tire Footprint Measurement for PCR & TBR Applications

Accurately measuring tire footprint pressure on passenger car and commercial truck tires has traditionally been difficult and inconsistent. The X3 PCR/TBR Tire System gives tire designers and engineers high-resolution contact patch data to evaluate tire footprints under controlled, repeatable conditions.

The Passenger Car Radial (PCR) and larger Truck & Bus Radial (TBR) sensors provide the consistent, high-quality measurements required for reliable design decisions and performance assessment.



ENGINEERED FOR R&D AND TIRE VALIDATION

TIRE R&D APPLICATIONS

- Measurement of tire contact patch areas, shape, and pressure distribution under controlled load and inflation conditions.
- Used during tire design verification and tread pattern evaluation to quantify how design changes affect footprint performance.
- Supports baseline characterization and design-to-design comparison for development and validation.
- Provides input for correlation with FEA (Finite Element Analysis) models, wear testing, and rolling resistance studies.

ENGINEERING-GRADE MEASUREMENT & ANALYSIS

- High-spatial-resolution sensor arrays capture local contact and pressure variations across the tread surface.
- Software enables efficient test setup, visualization, automated footprint and pressure metrics, and direct data export for engineering reports and direct analysis tools.
- Calibrated sensors provide repeatable measurements ($\pm 10\%$) suitable for laboratory testing.
- Sensor construction supports repeated static and quasi-static loading in durability and endurance tests.

SPECIFICATIONS

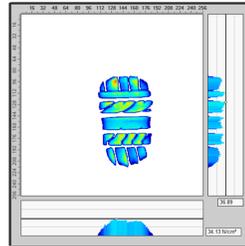
Tire footprint data for PCR and TBR applications.

- Durable, robust sensor designed for frequent, repeated use.
- 15 mm thick portable sensor usable on any flat surface.
- 296 × 296 mm (PCR) and 400 × 400 mm (TBR) measurement areas.
- 1.15 mm (PCR) and 1.56 mm (TBR) sensor resolutions.
- 10–200 psi (PCR) and 10–300 psi (TBR) calibration ranges.
- ±10% accuracy & long-term calibration stability.

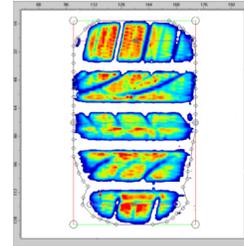
SOFTWARE FEATURES

Practical, intuitive tools provide detailed footprint measurement and analysis.

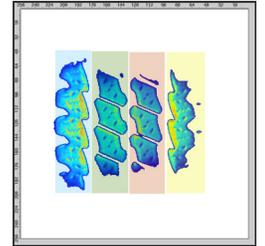
- Record 2D/3D images and calculate key statistics.
- Automated & advanced tire tools measure:
 - Tire contact patch
 - Length & width
 - Average pressure
 - Max pressure
 - Estimated load
 - Tire sensor groups
- Raw data export for external analysis workflows.



Tire Profile



Tire Measurement Tools



Tire Sensor Groups

SENSOR	USE CASE	SENSING AREA CM X CM (IN X IN)	SENSOR RESOLUTION MM X MM (IN X IN)	PRESSURE RANGE N/CM ² (PSI)
IX500:256.256.22	Passenger Car Radial	29.6 x 29.6 (11.65 x 11.65)	1.15 x 1.15 (0.05 x 0.05)	6.89 – 137.9 (10 – 200)
IX500:256.256.16	Truck & Bus Radial	40 x 40 (15.75 x 15.75)	1.56 x 1.56 (0.06 x 0.06)	6.89 – 206.84 (10 – 300)

OUR PLATFORM INTELLIGENT DYNAMIC SENSING

The platform behind our product design and safety testing products, Intelligent Dynamic Sensing, enables precise measurements and features highly detailed visualizations and smart data with AI-powered analysis — resulting in optimized performance, comfort, and safety.



Maximum performance sensing



Real-time data measurement and highest-quality visualizations



AI-powered data analysis and optimization

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