XSENSOR® Technology Corporation
Innovators in Pressure Imaging

AUTOMOTIVE TESTING – TIRE SENSOR COMPARISON SHEET

X3 IX500 Series Tire Sensors

XSENSOR Technology Corporation offers a wide range of tire-sensor options that provide flexibility to do robust tire-tread analysis on a variety of applications such as racing tires, performance tires, car tires, and truck tires. XSENSOR sensors also provide the tools necessary in larger agricultural, forestry, and mining applications.

Each system includes the following features:
- 3 standard sensor options can be used with the same **X3** PRO electronics and **X3** PRO v5.0 software
- Large high-pressure sensor options available at sizes up to 1 m x 1 m
- Durable sensors designed to handle both lab and environmental testing
- Tested and proven for sand and soil testing
- Fast data-acquisition rates for dynamic testing
- High resolution for gathering detailed information on tread patterns
- Added software functionality for research analysis

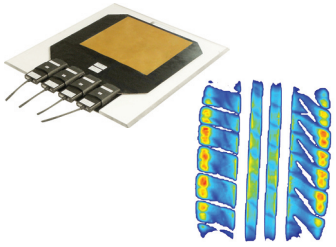
X3 IX500 128.128.10 – NEW ADDITION TO THE TIRE SENSOR PORTFOLIO

XSENSOR's latest tire sensor provides test engineers with another versatile tool for tire-tread analysis. The new sensor is comprised of patented capacitive technology. When combined with **X3** PRO electronics and the new **X3** PRO v6.0 software, this new sensor provides the means for collecting dynamic and accurate data. Collecting pressure imaging data for tire-tread patterns has never been faster.

The new sensor boasts a faster data-acquisition rate and enhances outdoor environment testing, giving test engineers the flexibility to test a variety of real-life applications.

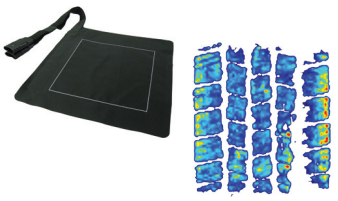
XSENSOR's newest X3 tire-sensor installment is part of a complete system which provides reliable, repeatable data for tire research and tire design needs.

IX500:256.256.22 and X500:256.256.16



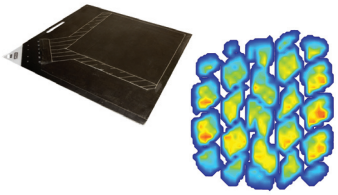
Key Features
- High-resolution sensors with a 1.15 mm pitch (resolution for the 256.256.22), 1.6 mm pitch (resolution for the 256.256.16), both include 65,536 sensing points
- Designed for high-quality pressure images with exceptional detail
- Currently used for tire-tread analysis and tire design
- Excellent for both lab and environmental testing
- Durable sensors that performs well in sub-surface (soil/sand) testing

IX500:128.128.10



Key Features
- Flexible and conformable sensor that can be used on uneven surfaces
- High resolution (2.54 mm) designed for dynamic and environmental testing conditions
- Easy set-up and portability for environmental testing
- High data-acquisition rates for dynamic testing (16 frames per second)

Custom Tire Sensor (Agriculture and Forestry Tires, shown below)



Key Features
- Sensors designed up to 1 m x 1 m sensing area
- Largest sensors available for agriculture and forestry-tread testing
- Study sub-soil impacts from different tires and tread-pattern designs

COMPARISON OF X3 IX500 SERIES SENSORS

XSENSOR Technology Corporation's tire sensors are available in a range of dimensions, speeds, and resolutions.

To help you choose the tire sensor that best supports your tire-tread analysis, refer to the two specification charts below. The quick reference chart compares the **X3** IX500 sensors on their sensing area, spatial resolution, and sensing speed. The second chart is a comparison of the technical specifications of each sensor. If these specifications do not meet your requirements, please contact XSENSOR.

COMPARISON OF SENSOR OFFERINGS

IX500 Sensor	Sensing Area (1 = largest)	Spatial Resolution (1 = finest)	Sensing Speed (1 = fastest)
256.256.22	3	1	2
256.256.16	1	2	2
128.128.10	2	3	1

IX500:128.128.10

SENSOR FEATURES	IX500:256.256.22		IX500:256.256.16		IX500:128.128.10	
Spatial Resolution	0.05"	1.15mm	0.063"	1.6mm	0.1"	2.54mm
Total Area	25" x 21"	63.5cm x 53.3cm	25.5" x 31"	64.8cm x 78.7cm	19.8" x 19.8"	50.3cm x 50.3cm
Sensing Area	11.6" x 11.6"	29.5cm x 29.5cm	16" x 16"	40.6cm x 40.6cm	12.8" x 12.8"	32.5cm x 32.5cm
Thickness (Sensing Area, uncompressed)	0.024"	0.06cm	0.024"	0.06cm	0.045"	0.11cm
Thickness (Sensing Area, compressed)	0.018"	0.045cm	0.018"	0.045cm	0.020"	0.05cm
Thickness (Border – cabling side)	0.024"	0.06cm	0.024"	0.06cm	0.12"	0.31cm
Border Width (cabling side)	4.75"	12.1cm	2.85"	7.24cm	4"	10.16cm
Border Width (non-cabling side)	2.63"	6.7cm	0.4"	1cm	3"	7.62cm
Cable	—	—	—	—	24" x 2" x 0.36"	60.96cm x 5.08cm x 0.91cm
Connector	4.76"x2.76"x0.9"	12.1cm x 7cm x 2.3cm	4.76"x2.76"x0.9"	12.1cm x 7cm x 2.3cm	4.76"x2.76"x0.9"	12.1cm x 7cm x 2.3cm
Requirements for Operation	Four **X3** SENSOR PACK PROs		Four **X3** SENSOR PACK PROs		Two **X3** SENSOR PACK PROs	
Frame Rates	6.2 frames/s*		6.2 frames/s*		16 frames/s*	

*With an Intel Core 2 Duo processor and XSENSOR's PRO v6.0 software. Results may vary with other configurations.

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