

## Spray Pattern Measurement System



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Sample Data Display

## PRODUCT OVERVIEW

The Spray Pattern Measurement System is a first-of-its-kind large, high-speed sensor mat designed to visualize and characterize accumulated fluid deposition information for spray processes and is able to identify where a sprayed fluid or gas actually land.

The Spray Pattern Measurement System was designed for manufacturing, process engineers and researchers who are working with spray and/or coating processes involving very fine mists and who need to understand specific spray patterns as part of a manufacturing or coating process to control the quality of the finished product.

Many spray process requirements are met only through "trial and error", meaning numerous adjustments to achieve a desired result. PPS's Spray Pattern Measurement System addresses this problem by digitizing, visualizing, and quantifying fluid deposition patterns that enable real-time feedback and electronic records for comparison and analysis, providing new levels of insight into spray and coating processes.

## **KEY SYSTEM FEATURES AND BENEFITS**

- High resolution array sensor images the amount of fluid deposited over an area and provides instantaneous feedback for quick adjustments or analysis.
- Ability to measure fluid deposition even for applications in which pressure is infinitesimal.
- Waterproofed Sensor Mat capable of providing valuable data under any spray process conditions. This data shortens development time and helps improve the quality and cost of products and processes.
- High performance capacitive sensing technology saves time and improves results by significantly reducing recalibration and repeated tests allowing developers to resolve problems and answer questions faster.
- *High speed USB 2.0 interface* provides latency-free results.
- Chameleon Visualization Software provides intuitive, easy to use, high-quality visualization and easy access to data for analysis and export to other applications.





SENSOR MODELS	
Model Number	6351
Total Sensor Area	250mm x 260mm
Active Sensing Area	192mm x 160mm
Element Count	1920 (48x40)
Spatial Resolution	4mm x 4mm

SENSOR CHARACTERISTICS AND PERFORMANCE <sup>1</sup>	
Signal to Noise Ratio (SNR)	300:1
Contact Surface Material	Cloth & Polyimide
Sensor Thickness	0.24 in (6.1 mm)
Cable Length	59 in (1.5m)
Operating Temperature	-5°C to 85°C

ELECTRONICS SPECIFICATIONS	
Sample Rate	200Hz
Computer Interface	USB 2.0
ADC Resolution	12 bit
Input Voltage	5V
Input Power	2W
Enclosure Size	6.5x6.2x1 in. (16.5x15.8x2.5 cm)
Weight	1.43 lbs. (650 g)

## **SYSTEM COMPONENTS**

- One Waterproofed Spray Pattern Sensor with USB 2.0
- Chameleon Visualization and Data Acquisition Software
- Synchronized video capture function and hardware
- Remote Installation and Training

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<sup>&</sup>lt;sup>1</sup> Performance numbers are for typical system response. Actual performance may vary.