

# ITO Sheet Resistance Standard

THE FINISHING TOUCH FOR FLAT PANEL METROLOGY. Indium Tin Oxide Sheet Resistance Standards (ITOSRS) from VLSI Standards are NIST-traceable products, intended for calibration of both contact and non-contact sheet resistance measurement tools used in the LCD, flat panel and touch-screen markets.

The image at right shows the 125 mm x 125 mm ITO Sheet Resistance Standard.



## PRODUCT DESCRIPTION

The ITO Sheet Resistance Standard consists of a glass substrate with a thin film of indium tin oxide sputtered on it. The entire surface of the glass substrate is coated with the ITO film, but only the center portion of the substrate, 30 mm in diameter, is certified. The standard is suitable for larger non-contact probes, four point probes, resistivity and other sheet resistance tools and comes with a certificate of traceability to NIST.

## PRODUCT SPECIFICATIONS

- **Substrate size:**  
125 mm x 125 mm x 0.7 mm
- **Nominal Sheet Resistance Values:**  
15  $\Omega/\square$ ; 90  $\Omega/\square$
- **Material**  
90%  $\text{In}_2\text{O}_3$  : 10%  $\text{SnO}_2$
- **Certified Area**  
30 mm diameter in the center of the plate
- **Sheet Resistance Uniformity in the Certified Area**  
< 1.5% ( $1\sigma$ )
- **Certified Expanded Uncertainty**  
  - $\leq 3\%$  for the 15  $\Omega/\square$  model (95% confidence)
  - $\leq 5\%$  for the 90  $\Omega/\square$  model (95% confidence)
- **Serialization**  
Each plate is individually serialized
- **Traceability**  
NIST



## ITO-SRS

## Indium Tin Oxide Sheet Resistance Standard

Application: Sheet Resistance Calibration  
 Equipment: Contact and Non-Contact Probes  
 Features: 0.7 mm thick glass plate coated with ITO  
 Traceability: NIST  
 Product Range: 15  $\Omega/\square$  - 90  $\Omega/\square$

	<u>Substrate</u>
Sheet Resistance ( $\Omega/\square$ )	125 mm x 125 mm x 0.7 mm
15	ITO-SRS125-15
90	ITO-SRS125-90