



LEHIGHTON ELECTRONICS INC.

LEHIGHTON ELECTRONICS, INC.

Quality Service Since 1963
P.O. Box 328
208 Memorial Dr.
Lehigh, PA 18235-0328

CALL/CONTACT
Phone: (800) 535-1112
Fax: (610) 377-6820
E-mail: salesinfo@lehigh.com
Website: www.lehigh.com

Contactless Bulk Resistivity / Sheet Resistance Measurement and Mapping Systems

Process Monitoring & Quality Control for High Production Yields, efficiency, and maximize production uptime.

Characterization of

* **All Compound Semiconductor materials** (epi, annealed ion-implants on semi insulating and some doped substrates)

* **Silicon wafers** (bulk Si, epi, annealed ion-implants, and POCl₃ doping uniformity on high resistivity substrates)

* **Thin film metallization**
(Contact factory for details)

Benefits

- * Lower Operation Cost
- * Minimal non-contact calibration
- * Measurement heads are permanent
- * Measurement range selected easily
- * No product wafer contamination
- * Monitor metal film uniformity immediately following deposition

Operating Characteristics

- * High spatial resolution
- * Precise voltage regulation for tight linearity and consistently repeatable results

Sample Handling and Sensing

- * Up to 300 measurement points
- * Automatic drift compensation
- * Software-selectable resistivity ranges

Measurement Capabilities

- * Normal coil gap ($\geq .035''/.889\text{mm}$)
- * Wafer sizes 2'' (50mm) to 8'' (200mm) wafers
- * Manual loading

Sensor Transducer Sizes

- * 14 mm diameter for all ranges

Accessories and Options

- * Capacitance thickness capability
- * Light Shield

Specifications

Range	Sheet Resistance	Bulk Resistivity
HI	15 - 3,000 Ω / \square	1.0 - 200 $\Omega\text{-cm}$
LO	0.2 - 15.0 Ω / \square	0.01 - 1.0 $\Omega\text{-cm}$
XL	0.035 - 1.5 Ω / \square	0.005 - 0.1 $\Omega\text{-cm}$

* Standard Deviation

0.1% to 1.0% - Depends on the range

* Linearity

0.035 to 3,000 $\Omega / \square < \pm 3\%$

* Specifications based on current NIST Standards. Actual performance may exceed this depending on application.



LEI 1510EC-standalone
(Shown w/Optional Light Shield)

LEI 1510E

