

# Lucas Signatone Corp.

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## QUAD MAP

### High Speed Semi-Automatic Production Resistivity Test Station



- High speed measurements of thin films, wafers and solar tiles.
- Reports sheet resistance Ohms per square and resistivity in Ohms per cm.
- Available in 150mm, 156mm square, 200mm and 300mm configurations
- Speed: 50 points per minute with standard configuration
- Dual configuration: applies the standard ## to automatically correct for geometric errors caused by probe spacing and/or edge proximity, improving overall accuracy
- Auto-range: finds the ideal current setting to meet the parameters of the standard for measuring.
- Standard range: 1m $\Omega$  to 100M $\Omega$  per square
- P/N typing
- 5 different 2D and 3D mapping to choose from
- Data is automatically stored and may be exported to a spread sheet.
- Optional SECSII/GEM interface allows control and ability to upload data from FAB management system

Key features in all Signatone systems include *auto-range* and *dual configuration*. *Auto-range* automatically finds the ideal current setting to meet the parameters of the standard for measuring. At the first test site, the software controls the current source to step through a number of settings until the measured voltage is in target range as defined by the standard. This current is then used for all subsequent measurements of the sample. *Dual configuration* mode applies the standard ## to automatically correct for geometric errors caused by probe spacing and/or edge proximity improving overall accuracy.

Signatone offers 3 product families- The QuadMap for production, the QuadPro for R&D and the Pro4 for basic, manual measurements. Each family has a variety of options and configurations. With over 60 configurations to choose from, Signatone has the product that will meet your application.

## QuadMap



Designed for the production environment, the QuadMap provides high speed measurements of thin films and wafers or solar tiles. A test sample may be loaded and tested with 49 points in less than a minute. A touch screen interface allows users to easily set test parameters. A pin lift chuck allows easy placement of the sample on the chuck with a vacuum wand or tweezers. An option for an automatic cassette loader creates a fully automatic system. The system is standalone with a small footprint. Models are available in 150mm, 156mm square, 200mm and 300mm configurations.

### QuadMap model maker

QuadMap-[range][size][loader] **Sample: QuadMap-M80**

S	Standard range: 1mΩ to 100MΩ
M	Conductive range: 1μΩ to 100MΩ
G	High resistance range: 1mΩ to 10GΩ
6	For 150mm diameter wafers
S	For 156mm square solar tiles
8	For 200mm diameter wafers
C	For 300mm diameter wafers
0	No loading method provided with system
W	Vacuum wand with appropriate end defector integrated with system
F	Signatone single cassette auto indexing and loading robot and elevator system with appropriate end defector integrated software and system.

## QuadPro and QuadPro TCR

A thermal chuck may be added to the QuadPro to allow mapping a sample at various temperatures. With the thermal chuck option, Temperature Coefficient of Resistance characteristics of a sample can be measured. The TCR software manages the whole tests and reports TCR in ppm also displaying a graph. A variety of thermal chuck options and temperature ranges are available and fully integrated into the system for automated test management.

### QuadPro model maker

QuadPro-[range][type][size][TCR option]

S	Standard range: 1mΩ to 1.2MΩ
E	Economic range: 1mΩ to 800KΩ
C	Conductive range: 1μΩ to 1.2MΩ
M1	Recommended range: 1μΩ to 100MΩ
M2	Recommended range: 1μΩ to 100MΩ, includes P/N typing
G	High resistance range: 1mΩ to 10GΩ
F	Full range: 1μΩ to 10GΩ, includes P/N typing
B	Manual bench top configuration, stand with position indication for manual mapping
A	Semiautomatic stand alone configuration, automatic positioning and mapping
R	Integrated test package with Signatone semi-auto probe station
8	For samples 10mm - 200mm in diameter
C	For samples 10mm - 300mm in diameter
0	No TCR option
T	Standard TCR option: range of 10°C to 300°C, 1°C resolution
P	Low range, precision TCR option: range of 10°C to 125°C, 0.1°C resolution
H4	High Temp range TCR option: 100mm hot chuck, 10°C to 600°C, 1°C resolution
H6	High Temp range TCR option: 150mm hot chuck, 10°C to 550°C, 1°C resolution
H8	High Temp range TCR option: 200mm hot chuck, 10°C to 500°C, 1°C resolution



Example of most popular QuadPro model configuration: **QuadPro-M1A8T**

Call for **Pro4** configurations and pricing: 408-848-2851  
or e-mail: [sales@signatone.com](mailto:sales@signatone.com)