

# WaferSense®

Auto Resistance Sensor™ (ARS)

ARS

## Real time resistance measurement of plating cell contacts.

Quickly monitors and identifies resistance measurements with 50 separate measurement pads around the perimeter, utilizing Kelvin Sensing (4-wire resistance) method for accurate measurement of low value resistance.



**NEW**

## Shorten equipment maintenance cycles with wafer-like 4-wire resistance sensor.

- Collect and monitor real time measurement of contact resistance plating cells to detect residue affecting plating pins.
- Thinner wafer-like form factor allows ARS to be handled like any other wafer in the tool.
- Save time and costs associated with metrology wafer measurements.

## Predict when a tool needs maintenance with quantitative analysis of measured mean resistance over time.

- Optimize preventative maintenance plans with accurate, repeatable data trends.
- Record data to enable comparison between past and present, as well as one tool to another with new CyberSpectrum™ software.
- Establish and save a baseline from a known clean and new contact ring.
- Compare mean resistances to baseline values and receive early warnings for non-uniform deposition associated with changes to plating pins.

## Improve cell-to-cell process uniformity with objective and repeatable resistance measurement.

- Predict when plating fingers have to be serviced using measured mean resistances.
- Increase yield across various plating cells in the tool by detecting the increase in contact resistance in real time.

**Semiconductor fabs and OEMs worldwide value the accuracy, precision and versatility of the WaferSense ARS - The most efficient and effective wireless measurement device for resistance.**



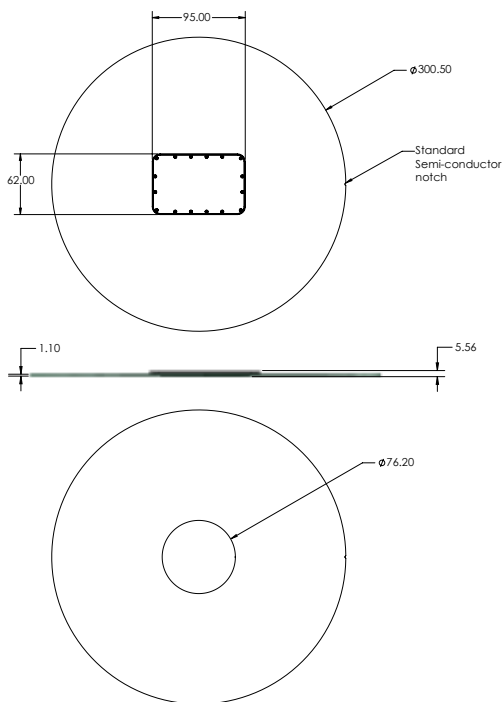
**Save Time. Save Expense. Improve Yields.**

## Features

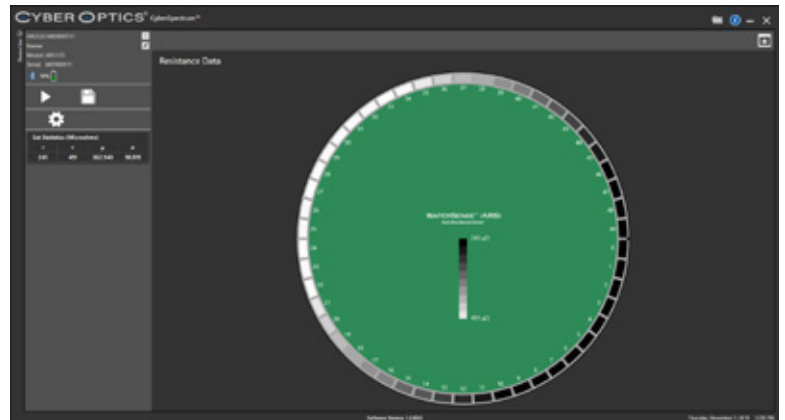
<b>Wireless, Wafer-Shaped and Battery-Powered</b>	Available in 300mm
<b>Part Number</b>	8030138
<b>Easy-to-Use Software</b>	CyberSpectrum software included CyberSpectrum: Displays real-time numerical and graphical data with mean and individual resistance measurements. Replays log file data for various sessions for review and analysis. Records data in a .csv format by appending data from each session with time stamped entry.
<b>Operating Range</b>	0.1mΩ to 200mΩ , 1Ω to 10Ω
<b>Highly Accurate</b>	1mΩ ±1% of range with normalized readings Resolution of 100μΩ
<b>Durable Housing</b>	Edge contacts are mechanically robust with noble metal plating 50 Measurement Pads Chemically compatible with SABRE* chemistry and cleaning procedures
<b>Operating Temperature</b>	20°C to 60°C
<b>Lightweight and Thin</b>	270 grams and 5.5mm thick
<b>Battery-Operation</b>	>3 hours per charge. Inductive wireless charging and hands free operation
<b>WaferSense Link</b>	Bluetooth, Class 1, 2.4 GHz
<b>Operating Systems</b>	Windows 7, 8, 10, or 11
<b>Product Components</b>	Resistance measurement device, charging clean case, carrying suitcase, USB communications link module, power adapter and application software
<b>Calibration</b>	Factory recalibration recommended annually

\*SABRE is a registered trademark of Lam Research Corporation

## Dimensions



## CyberSpectrum™



Real-time data.