

Solstice® Single-Wafer Processing Platform

Customizable, Modular, and Scalable Automated Single-Wafer Processing

Highly Configurable and Scalable Solutions with Maximum ROI

Our flexible Solstice® platform offers a wide variety of electroplating and surface preparation applications on the same minimal footprint system. If you need volume manufacturing, purpose-built configurations provide optimized design for maximum throughput and cost of ownership.

The Solstice platform is able to handle a variety of substrate types and excels in compound semiconductor applications. Our platform can reliably and expertly handle and process your 3-inch to 8-inch wafers -- whether mounted, thinned, flatted, bowed, or transparent.

For serviceability, our Solstice platform has located and routed sample ports, filter housing, drains, and fill stations in easily accessible outer parts of the tool. This not only helps during routine maintenance, but also makes it easier for you to upgrade and retrofit the Solstice as your needs and capability change. This platform is also capable of handling multiple wafer sizes, including different wafer sizes at the same time. When a wafer rotor needs to be changed, it takes less than 5 minutes. In addition, we offer fluidics and software integration with major chemical analysis units for automated and advanced bath management monitoring and control schemes.

For more information, contact us at sales@classone.com or +1-406-407-7814 to schedule a product demonstration and see how we can optimize your technology processes and results.

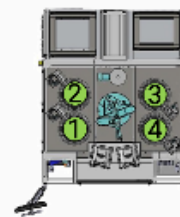


Smallest Footprint Among Automated Plating Platforms

LT, LT3 Configuration



S4 Configuration



S8 Configuration



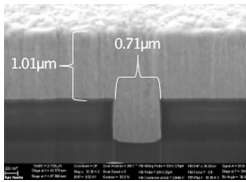
Solstice® Automated Electroplating and Surface Preparation Single-Wafer Platform

ClassOne Technology's flagship Solstice single-wafer platform is a customizable, scalable solution offering ultimate wafer uniformity and process control for a wide variety of electroplating and critical surface preparation applications on the same minimal footprint. With up to 8 chambers for multiple plating, this scalable platform is suitable for both R&D and high-volume manufacturing environments.

Electroplating

Gold

Solstice GoldPro™ electrochemical deposition systems perform key gold plating processes, delivering a flat plated feature profile with high speed, efficiency and low cost of ownership

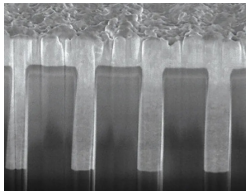


Example of fine-feature gold plating on the Solstice GoldPro reactor

- Fine-feature gold fill
- Through-mask gold plating
- Gold through-wafer via (TWV) plating

Copper

Solstice CopperMax™ systems perform high-performance, high-uniformity copper plating for a variety of feature types, resulting in faster plating rates, >95% lower chemistry costs, and excellently plated feature uniformity



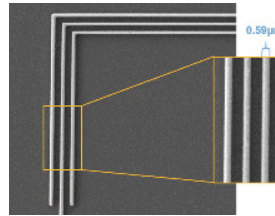
Solstice high-aspect-ratio copper plated TSV features

- Copper TSV fill plating
- Copper pillar plating
- Copper RDL plating
- Copper damascene fill

Surface Preparation

Photoresist and MLO

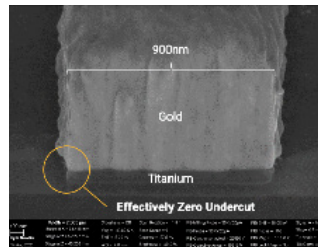
Solstice photoresist strip and MLO can handle fine features using flood soak and high-pressure liftoff, with its safe, facedown processing and segregated faceup rinse and dry



- Metal Lift-Off
- Photoresist Strip
- Polymer Removal

Wet Etch

Solstice wet etch capable of uniform etching and cleans. The End Point Detection (EPD) option helps ensure full removal of seed and barrier metals



- Metal Etch
- UBM Etch
- RCA Cleans
- TSV Cleans
- Flux Cleans

Our Solstice Systems

Request a demo and learn how ClassOne Technology's flexible and configurable systems can optimize your advanced device processing: sales@classone.com

Solstice GoldPro™
Solstice CopperMax™
Solstice Gen4 ECD

Solstice Wet Etch
Solstice Metal Lift-off
Solstice Packaging



The single-wafer processing Solstice Platform is available with 8, 4, 3 or 2 chambers in customizable configurations, depending on the applications you require.