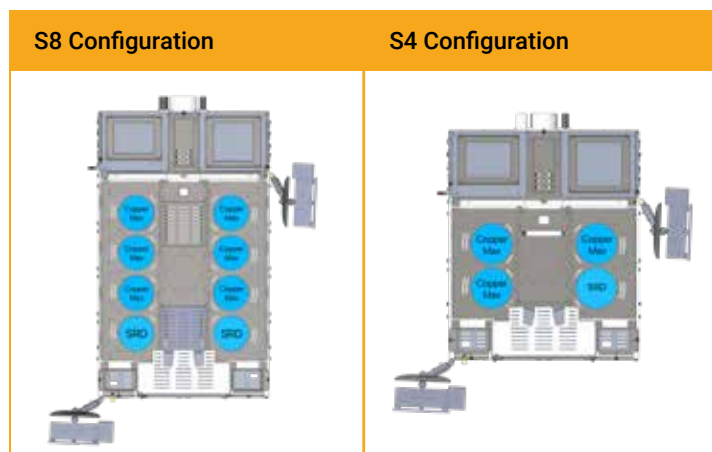


Solstice[®] CopperMax[™] Copper Electroplating System

High Performance at Reduced Process Cost

Our Solstice[®] CopperMax[™] system is designed to deliver high-performance copper plating at a low cost of ownership. Capable of plating for a wide variety of applications, the CopperMax chambers use a cationic exchange membrane to protect additives from the anode. This results in 90%+ savings in bath additive costs.

In addition, CopperMax uses our proprietary fluid flow and electric field shaping design to achieve high plating rates and uniform depositions. With the ability to precisely control grain size and orientation, our Solstice platform has been selected for emerging applications such as hybrid bonding and advanced packaging. Improve the performance of your copper process with Solstice CopperMax.



Solstice configurations with multiple chambers can be paired with one or more SRD chambers



Applications

Leading manufacturers are choosing Solstice CopperMax as their plating technology for through-silicon via (TSV), through-glass via (TGV), damascene and copper pillar features.

Features

- Cationic exchange membrane
- Separates bath and additives from anode
- Greatly reduced cost of additives
- Precise control of grain size and orientation

Process	Conventional Chamber	CopperMax [™]	Savings
TSV Bath	0.80 ml/A-Hr	0.020 ml/A-Hr	97.5%
Damascene Bath	0.52 ml/A-Hr	0.008 ml/A-Hr	98.4%
High Rate Bath	0.67 ml/A-Hr	0.028 ml/A-Hr	95.8%

Additive consumption reduction resulting in up to a \$300,000 reduction in annual cost of ownership