

Real Time Analyzer (RTA) 3D

Fully Automated Analytical Control Tool



Real-time Monitoring of Electroplating Solutions

Technic's RTA (Real Time Analyzer) systems have set the standard for robust analytical performance in plating for over two decades. These highly reliable tools offer trouble-free, accurate analysis of your electroplating solutions, by monitoring and controlling levels of chemical constituents.

The **RTA 3D** is the culmination of years of lab and field experience, as it combines successful technologies utilized by the previous well-established RTA systems, with new features that further improve accuracy and reproducibility.

The RTA 3D is ideally suited for semiconductor manufacturing applications that require high levels of precision, such as copper damascene and TSV (Through Silicone Vias).



Benefits

- Early fault detection capability
- Virtually consumable-free
- No need for reagents or chemical operations (no waste generated)
- Small footprint
- Very low maintenance
- Great reproducibility and accuracy
- High reliability
- Low cost of operation

Features

- On-line in-tank method
- State-of-the-art electronic components
- Innovative electrochemical techniques
- Intuitive graphical user interface
- Full analysis of undiluted bath in 15-30 min. (all components)
- Automatic temperature correction capabilities
- Open software architecture allowing for customization and integration
- Design based on field experience and customer feedback



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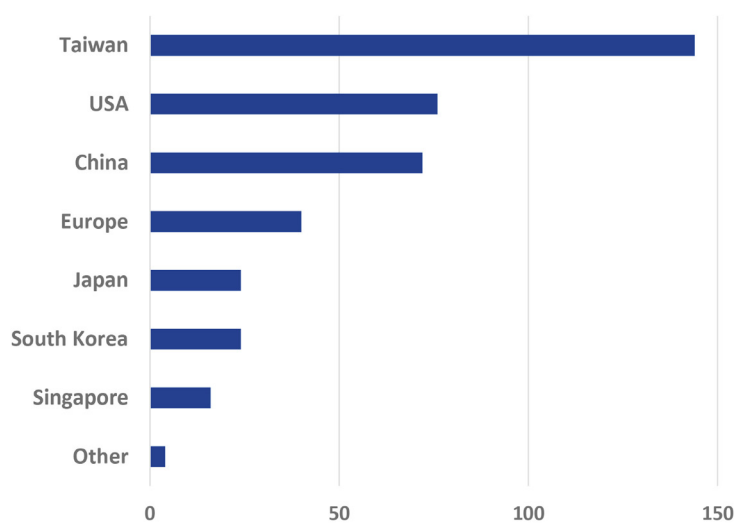
Unparalleled Customer Support

The RTA 3D has been designed with remote support in mind; the system is user-friendly and low-maintenance. Operator training is an integral part of the installation process. The RTA team provides excellent customer service, aiming to respond to all customer concerns within 24 hours. Extended warranty and maintenance contracts are available.

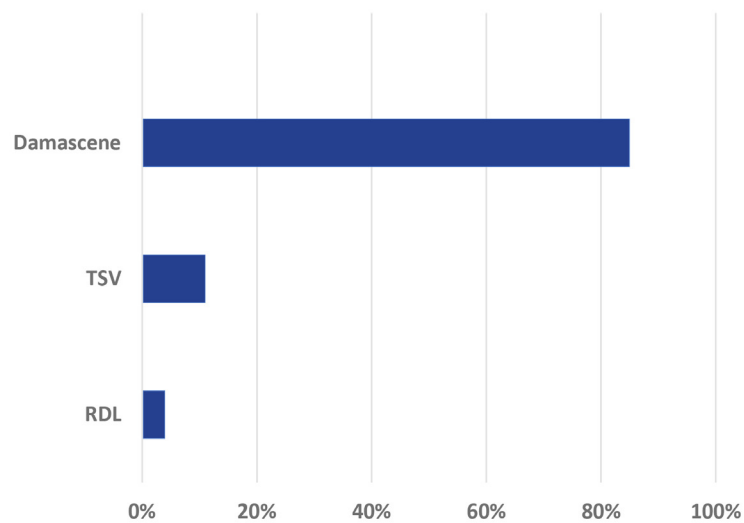
RTA Distribution by Country and Process

Over 400 RTA systems are currently in use worldwide, with most units sold in Taiwan and the US, followed by China and Europe. The majority of systems are used in copper damascene applications, followed by TSV and RDL (Redistribution Layer).

RTA Systems by Country



RTA Distribution by Process



Please note that the figures shown in the above graph are approximated.

RTA 3D	RTA 3D ²	Configuration Features and Capabilities
✓	✓	Early fault detection capability
✓	✓	Small footprint
✓	✓	Low maintenance/simplicity of design
✓	✓	Quick, reliable results from all bath components
✓	✓	Independent control of 2 different chemistries
	✓	Self-validating configuration assuring a smooth, uninterrupted manufacturing process
	✓	Dual Modular Redundancy (DMR) additionally enhanced by integrated self-diagnostics/fault detection
	✓	Easily multiplied for continuous backup, automation of troubleshooting, and downtime minimization

Benefits of the RTA 3D² configuration, as shown in the chart above, include the operation of two systems running simultaneously. This setup allows for continuous monitoring and cross-checking, ensuring optimal performance and reliability.