



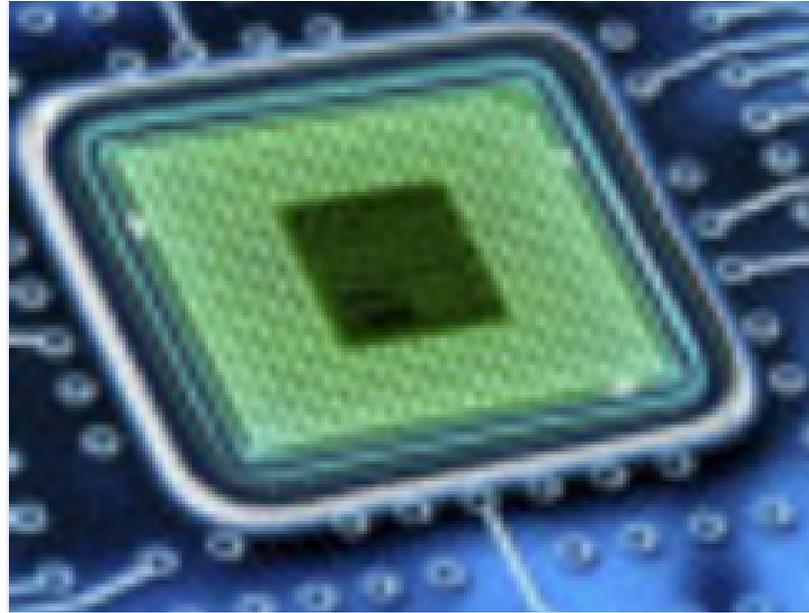
QPTECHNOLOGIES
MICROELECTRONIC PACKAGING & ASSEMBLY SOLUTIONS

November 2021 Newsletter

Happy November! As we approach next week's Thanksgiving holiday in the U.S., we would like to take a moment to acknowledge all those who have done and continue to do their part throughout the pandemic to sustain our industry and our business. Whether you are part of our internal team, or one of our supply-chain partners or vendors, we are thankful for your hard work that has helped ensure we could continue meeting our customers' needs. And if you are one of our valued customers, we are tremendously thankful for your business. The past two years have been highly challenging for our world. We are grateful that our staff has remained healthy, and that we've been able to slowly get "back to normal" as we return to the office and to in-person events. We look to the year ahead with optimism that things will continue to improve. If you celebrate Thanksgiving, we wish you a happy and peaceful holiday!

Tech Highlight: Custom Substrate Development

One of our newer core offerings is our substrate development service, which we launched in 2020 to accommodate customers' unique packaging requirements. We work with you to create turnkey solutions for substrate-based assemblies, with delivery times at least 50 percent faster than competitive services. Targeting both ICs and MEMS, we help you design and develop your custom substrate – using virtually any type of substrate material – as well as provide fabrication prep and assembly services.



We further expanded our capabilities earlier this year, incorporating interposer designs for flip-chip and large-cavity packaging. If you have a flip-chip die that you need to package quickly and cost-effectively using your existing technology, our team can help you select the right package and substrate materials – or adapt what you have and need to continue using – to meet your packaging requirements. For our latest development in this area, please see the earlier interposer item in this newsletter; we'll be sharing more details soon. In the meantime, if you have questions or would like to learn more about our substrate development service, please contact us at sales@qpstechnologies.com.

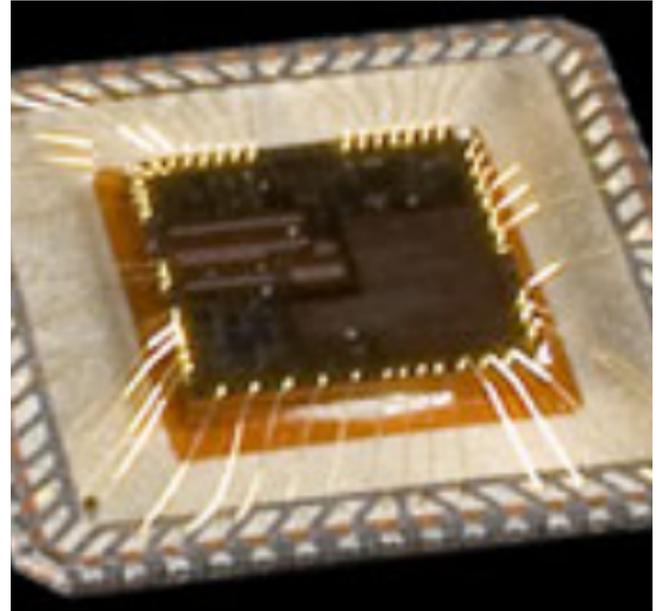


Mike Strittmatter, Sales Engineer

Over the past year, we've added a number of seasoned professionals to our team to help support and extend our strong growth. In March, Mike Strittmatter came on board as a sales engineer, bringing more than three decades of industry experience to his role supporting current and future customers in the southwestern U.S., southeast Asia, South and Central America, and Africa. Before joining QP Technologies, Mike was president of technical sales and consulting firm SDS Technology. Prior to that, he held sales management roles with Carsem Semiconductor, Sales and Service Inc. (SSI), and Access Substrates. His experience also includes stints with Hitachi, Micron, Maxim and Dallas Semiconductor. Mike resides in Texas with his wife Polly and two miniature schnauzers, Daisy and Skip. Mike also holds a commercial pilot's license, is a Certified Flight Instructor, and enjoys working on classic muscle cars.

News Highlight: Failure Prediction in Packaging

As packaging continues to grow in complexity, potential problems must be eliminated as early as possible to prevent devices from failing due to previously undetected issues. In his latest blog post for Semiconductor Engineering, our Sam Sadri shares his insights into how statistical process control is being used to optimize packages through analyzing data gathered over time, such as wirebond pull strength. The post also touches on the application of test technique, such as thermal cycling test and burn-in testing, to aid in reliability prediction and contribute to total quality management.



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About QP Technologies

QP Technologies is a leading provider of microelectronic packaging and assembly, wafer preparation, and substrate design and development services. We leverage proven technologies developed by our skilled staff, and we work closely with you to get your products to market quickly, with the highest quality prototype and production volumes.

858.674.4676

moreinfo@qptechnologies.com

www.qptechnologies.com