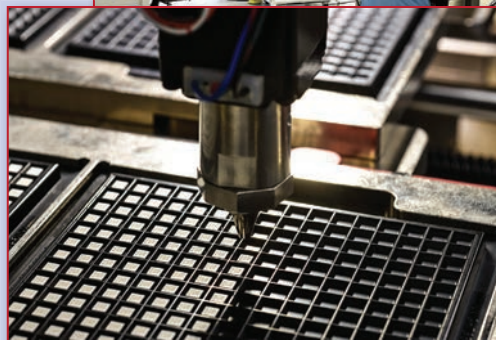
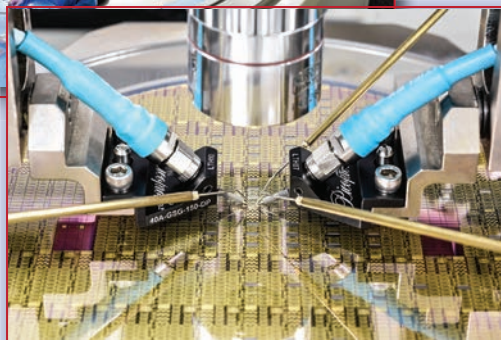


# FAB S and LAB S

## Performance Drives at Custom MMIC



As a fables MMIC house, Custom MMIC provides value by being flexible and nimble to meet customer demands. They provide diligence in the selection of the best fabrication facilities and processes for a given application to best leverage their design, simulation and testing expertise. Higher demand this year has led Custom MMIC to build a new 10,800 square foot facility in Chelmsford, Mass. that includes more automated equipment. This new facility is enabling Custom MMIC to address higher volume products and reduce lead times to better serve their customers.

Examples of the state-of-the-art equipment in the new facility include a Cascade 12000 autoprober with high and low temperature capability and an Exatron 903 autohandler for plastic and air cavity QFN packages. These acquisitions were required due to the transition to high volume production of its extensive standard product library.

Their engineering and production test equipment operates to 70 GHz including VNAs, sources, phase noise test station, temperature chambers, pulse power and more. The lab is modular and can be reconfigured as needed for the most complex setups. In-house derived test code is also in place to automate all engineering and production measurements. The lab also has the flexibility to test both die and packaged parts while de-embedding all surrounding losses and parasitics, to

accurately characterize the products.

Custom MMIC is certified to ISO9001:2008 and has successfully transferred the certification to the new facility. They also have the capability to produce space qualified products to MIL-PRF-38534 Class K. The facility has laminar flow hoods used for wafer test, die pick and visual inspection in a clean environment.

They are celebrating their 10-year anniversary as the company evolved from humble beginnings in 2006 as a start-up founded by Paul Blount. In 2011, Custom MMIC was awarded the Army Innovation Achievement Award for improvements over an existing design with 8 dB more gain, 1 dB less noise figure and 8x reduction in power dissipation. Company investment in recent years has yielded an extensive standard product library, based upon addressing the needs of system engineers. Over 100 standard products incorporate key improvements over standard COTS parts, such as positive gain slope, low phase noise, and all positive bias (no sequencing).

Custom MMIC excels at high performance GaAs and GaN products, emerging as a key MMIC supplier focused on military and aerospace applications. Their design team has extensive experience developing MMICs at frequencies from DC to 100 GHz. They design single function MMICs to complex integrated transmit/receive MMIC signal chains including various types of amplifiers, switches, phase shifters, attenuators, mixers and multipliers.

[www.custommmic.com](http://www.custommmic.com)