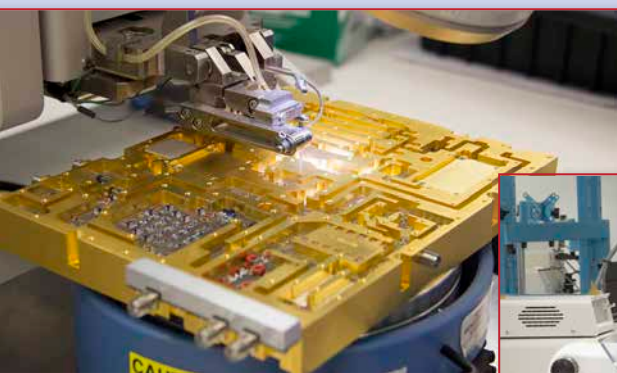


FABS and LABS

This is the first article in our new "Fabs and Labs" series featuring companies with interesting design, fabrication, assembly and test facilities that we visit in our travels around the industry.



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Mercury Systems has hit the sweet spot for producing commercial and defense sensor systems in their Advanced Microelectronics Centers. Mercury is a provider of commercially developed, open sensor and Big Data processing systems, software and services for critical commercial, defense and intelligence applications. They are able to deliver innovative solutions, rapid time-to-value and world-class service and support to prime contractor customers due to their intelligent setup of design and manufacturing facilities and industry expertise.

About six years ago, Mercury targeted additions in the RF and microwave sector that would enable them to provide the entire sensor chain from end-to-end: acquire, digitize, process, store, exploit and disseminate/electronic countermeasures. They acquired several microwave companies including LNX, KOR Electronics, Micronetics and Echotek Corp. These acquisitions gave them a wide array of microwave component and sub-assembly capabilities to fill out their portfolio of sensor capabilities.

After these acquisitions, Mercury developed their Advanced Microelectronics Centers in Hudson, N.H. and West Caldwell, N.J. to design and build high quality sensor assemblies. These centers provide the right flexibility and volume needed for the high performance sensor market. While many larger companies provide high volume production, they typically lack the flexibility needed by customers. There are also many smaller companies that provide flexibility but lack the scale to provide LRIP and production quantities. With their Advanced Microelectronics Centers, Mercury

has filled the missing gap with facilities that can be flexible and still meet the production volumes needed for this market.

The Hudson facility has 72,000 square feet with 12,000 square feet of clean room space and the West Caldwell facility has 23,000 square feet with 8,000 square feet of clean room space. The clean rooms provide full manual and automated microelectronics assembly plus digital and high frequency testing. The facilities also have machine shops and environmental testing facilities so that everything can be done on-site to build prototype and production products. Design and manufacturing engineers are co-located in the facilities for a smooth handoff from development to production. The clean rooms are also laid out to maximize cleanliness and optimize workflow. Both facilities have the same equipment and processes so that there is capacity flexibility and redundancy. For critical military programs, these attributes can be a strategic advantage. The New England locations are also in close vicinity to many of their customers.

Mercury Systems has built a "right-sized" company that is flexible like a small company but also has the scale to provide production quantities of high-performance sensor systems, including microwave components and sub-assemblies. They are leveraging their microwave company acquisitions and combined design power to introduce custom products to the commercial and defense industries. View their Advanced Microelectronics Center overview video at

www.microwavejournal.com/AMC