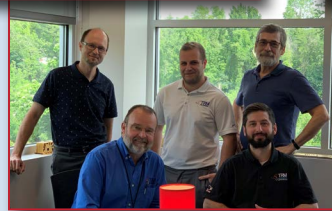
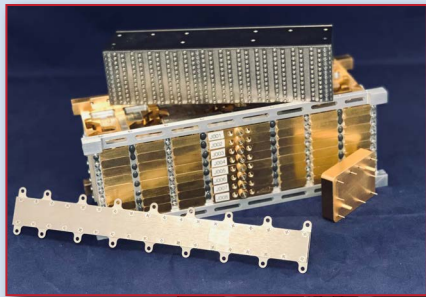


FAB S and LAB S

TRM Microwave: Building On A Long Heritage for a New Generation of Growth



TRM Microwave is one of the RF/microwave industry's marathoners. 51 years ago, three guys tired of working for a large company formed Technical Research & Manufacturing Inc. and started building components for cable television. Over the years, the name became TRM Microwave, and the company focused its growing capabilities on the defense market. Approximately 90 percent of its business supports defense, the rest space missions.

TRM's products comprise passive RF/microwave components, integrated assemblies and subsystems. A large catalog of RF/microwave circuit functions—beam formers, power dividers, couplers and hybrids—are available as stand-alone products; more often, though, they are the building blocks for integrated assemblies. These extensive component designs give customers confidence that TRM has the knowledge and production capability to execute challenging programs.

As system designers move to replace traveling wave tube amplifiers, TRM is seeing a growing demand to develop combiners for GaN power amplifiers. In addition to low loss, high-power combiners must dissipate the heat generated by the reflected power from the devices. The company's engineers are developing innovative approaches to handle this thermal management challenge, which is opening doors to directed energy and missile programs.

To support its growth, TRM expanded its facility earlier this year, doubling the size of its Bedford, N.H., site to some 25,000 square feet. The firm added a two-story extension to its existing building, then retrofitted the original so the two look the same. The expansion created two manufacturing floors, one for standard production, the other for new product development. The added space enabled the standard production flow to be aligned with the value stream, including

an investment in separate environmental rooms with ovens and vibration tables to support each production area. The expansion also included a computer managed carousel stock room for precise inventory control.

TRM's expansion followed a successful three-year mentor-protege program sponsored by the U.S. Missile Defense Agency. Raytheon served as the mentor to help TRM improve its business processes and management. Although the formal program has completed, the lessons and benefits continue through the company's continuous improvement culture.

In January, TRM was acquired by Quantic Electronics, a private equity firm formed by Arcline Investment Management that invests in electronics companies serving high performance and high reliability applications. Quantic's companies, now numbering a dozen, offer different products but largely serve the same customers. Each company operates independently, and Quantic helps cross-pollinate new business opportunities among them. This strategy has already provided a stream of new opportunities for TRM. With time, it will lead to collaboration among the companies, combining their capabilities to offer more integrated solutions. The financial scale of Quantic Electronics will also enable investments that TRM could not manage by itself.

The reason Quantic would find TRM an attractive acquisition is clear: during a half-century, TRM has developed a heritage of technical expertise, customer focus and program execution while retaining the flexibility and agility of a small company with a strong team culture. TRM's goal is solving complex RF/microwave challenges, getting customers what they need, when they need it—because beyond the customer are the men and women serving the nation. TRM wants them to get home safely at the end of the day.

www.trmmicrowave.com