

ViaSat's strength is working with our customers on cooperative product development, offering custom products designed and manufactured to meet their needs.

We bring you a unique set of cross-functional, design skills in design and manufacture of state-of-the-art custom MMICs and RF assemblies for commercial and military applications. Our expertise includes optimizing product cost, performance, reliability, and ease of manufacture. We offer a flexible business model for potential partners with negotiated pricing based on production volumes.

Your product can become a reality using our resources and expertise. Expertise in Custom Microwave Products & Components Includes:

STRONG SYSTEM DESIGN AND ANALYSIS

We have a strong understanding of the systems in which our components operate. We design with the optimal trade-offs in mechanical, electrical, and packaging elements. The result is high yields, low cost, and easy-to-manufacture products.

Our Ka-band transceiver is a prime example of this system design capability. Understanding the overall system allowed us to optimize allocation of functions to the RF assembly and chip-set for the best cost-performance balance.

PROVEN DEVICE MODELING SUCCESS

A key to reducing time and cost in MMIC development is first pass design success. By generating enhanced proprietary device and component models, our internal modeling group has a proven history of first pass MMIC designs. These techniques are essential at higher frequencies where commercial models may be inaccurate or too generic for the specific requirements of a given application.

CREATIVE HIGH FREQUENCY ELECTRICAL DESIGN

Our experience brings you expertise in many areas of design:

- » GaAs, SiGe, GaN,
- » Frequencies from 1 GHz to 94 GHz
- » Complex circuits including phase shifters, power amps, mixers, VCOs, and PLLs
- » ADS, HFSS, Cadence and all standard design tools.

Our innovative design team, with a record of creating some of the highest performing circuits in the industry, is ready to tackle your most demanding projects.

OPTIMIZED MECHANICAL DESIGN

Much of the difficulty in high frequency design is the MMIC mechanical interfaces. Challenges include not only signal transitions, but also thermal dissipations, waveguide moding and coupling. Our talented mechanical engineering team can model and create custom designs that optimize final product performance.

HIGH PERFORMANCE PACKAGING

We work with selected high performance packaging houses that provide excellent QFN or ceramic quality packages at very competitive prices. In addition, if the need arises, our mechanical engineering staff can design custom housings and packages for more difficult projects. These custom housings are extremely cost competitive with high performance and reliability.

FLEXIBLE DESIGN FOR DOMESTIC AND OFF-SHORE MANUFACTURING

Flexibility in selecting the right manufacturing and design partners for your RF modules and MMIC products gives you the best mix of skills and experience, and an ability to apply best talents from each of our manufacturing partners. We partner with only leading manufacturing companies in the United States, Japan, Taiwan, and other Asian countries to bring you high volume manufacturing, fast prototyping, low cost, and most importantly, proven quality and reliability.

EXPERT HIGH FREQUENCY TEST

We use our expertise in high frequency test to develop a full test suite and test software for your product, then manage the final test implementation and execution at our subcontractor facilities.



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