

multi-mix integrating technology

Multi-Mix® Microtechnology is an innovative process for microwave, multilayer integrated circuits and micro-multifunction modules (MMFM®). This process is based on fluoropolymer composite substrates, which are fusion bonded together into a multilayer structure. The fusion process provides a homogeneous dielectric medium for superior electrical and power handling performance at microwave frequencies.

Multi-Mix® technology allows the integration of active and passive functions into self-contained modules a fraction the size of conventional hybrid units.

Multi-Mix® process controls allow low cost manufacturing suitable for high or low volume production. The platform strategy of MMFM® reduces engineering cycle time and enables Multi-Mix® to be an economical solution for new designs of virtually unlimited size and shape.

Multi-Mix® offerings:

- Quad Hybrids/Couplers/Power Dividers
- Beamformers
- Delay Lines
- Filters
- Vector Modulators
- Phase Shifters
- Custom Integrated Modules

System goals accomplished:

- Integration of active RF components
- Integration of passive RF components
- Reduce Size
- Reduce Weight
- Reduce Overall System Costs
- Reduce Parts Count
- Higher Power

Applications:

- High Power Amplifier Modules
- Antenna Feed Networks
- Integrated T/R Modules
- Electronically Steered Phased Arrays
- Data Links
- Switch Filter Banks
- Beamforming Networks



Multi-Mix® technology has been successfully used to:

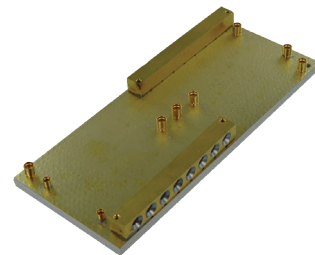
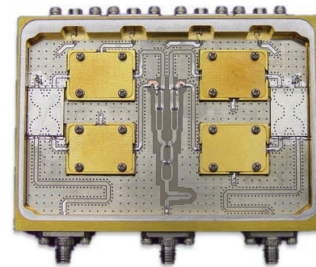
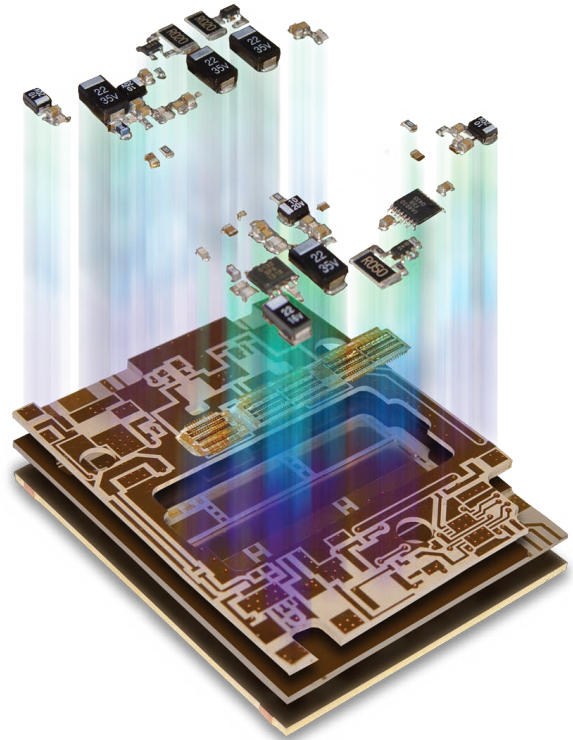
- Reduce size and weight in large phased array antenna feed networks
- Integrate multiple filter functions and reduce overall weight and volume by more than a factor of 10
- Create small high power multi gain stage linearized amplifiers
- Create beamforming networks with extremely tight port to port amplitude and phase control
- Include long delay lines in a small volume
- Create radiating structures
- Manufacture multiple function integrated assemblies
- Create wideband vector modulators
- Apply to multiple hi-rel and space applications

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From application engineering, through design and manufacturing, we offer a comprehensive approach to product specification, design certification and service. Whether you're looking for a standard or custom designed power solution, we have the proven experience to deliver what you need.

You can also count on us for in-service support. Our worldwide extensive product support program is backed by high caliber staff accustomed to the needs of the military. It's all part of the added value you can expect when you bring together an experienced team.



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