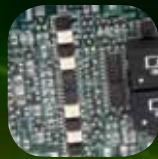


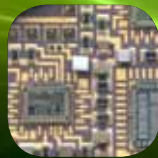
RF/Microwave and Optoelectronics



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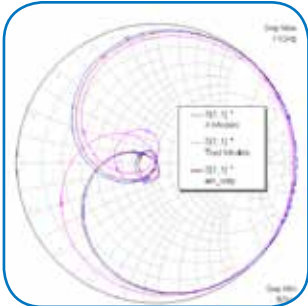


**LEADER IN THE
SCIENCE AND ART OF
MICROWAVE PACKAGING**



LEADER IN THE SCIENCE AND ART OF MICROWAVE PACKAGING

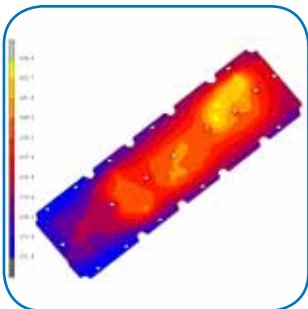
For nearly 50 years, we have led the industry in providing innovative, custom high-density, high-reliability microelectronics packaging solutions for the most demanding applications.



Optimize SWAP: Size, Weight, Power and Performance

Our dedicated team of scientists and engineers work with you to optimize your size, weight and performance requirements through:

- Circuit layout design
- Mechanical analysis
- Materials selection
- Thermal and power management analysis
- Power Integrity (PI) and Signal Integrity (SI) analysis



Services

At any phase of your design, we work with you to provide a cost effective, innovative packaging solution. Reliability and producibility are designed into every circuit, achieving a state-of-the-art quality product.

Advanced Technologies

We utilize a full array of advanced technologies to achieve optimal packaging for your circuit:

- WLP - Wafer Level Packaging
- CSP - Chip Scale Packaging
- SIP - System in Package
- MCM - Multichip Module
- MCA - Microwave Assembly
- Flip Chip/Flip Chip on Flex
- BGA/CGA - Ball/Column Grid Array
- Stud Bumping
- COB - Chip on Board
- SMT - Surface Mount Technology



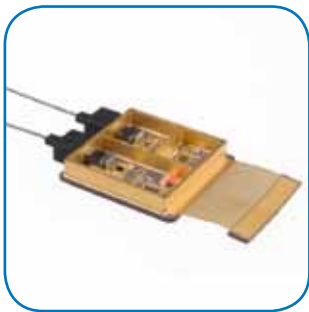
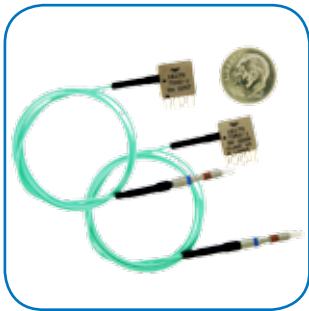
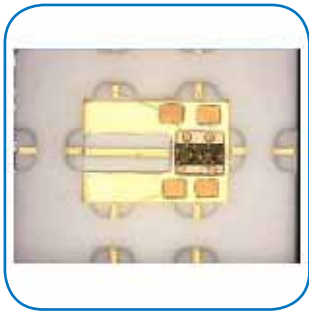
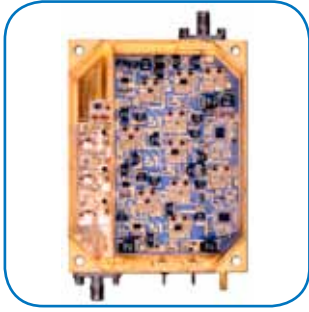
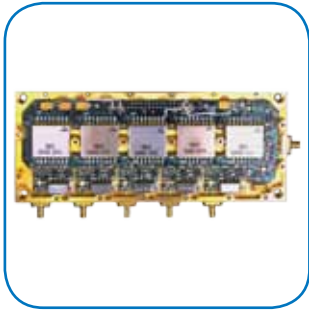
Quality

Every employee is committed to producing the highest quality product. We are a DoD DMEA Microelectronics Trusted Source, accredited for Microelectronics Packaging, Assembly and Test Services and maintain the highest level industry certifications:

- AS9100
- ISO 9001:2008
- MIL-PRF-38534, Class H and K



Contact our team to find out how we can help solve your toughest technology challenges.



Microwave Packaging Experience

We provide assembly and test support (up to 65 GHz) for single and multi-function RF & Microwave for secure communications and EW systems

- Detector Log Video Amplifier (DLVA)
- Detector Video Compression Amplifier (DVCA)
- Low Noise Amplifier (LNA) and Medium Power Amplifier (MPA)
- Successive Detection Log Amplifier (SDLA)
- Amplifier Controls (Pre, Variable, Gain, Driver, MMIC)
- Converters (Up, Down, High Band, Low Band)
- Detectors (Bit, RF, Log)
- Diplexers
- Filters (Bandpass, Low, High)
- Frequency Discriminators
- Frequency Doubler and Frequency Synthesizer
- GPS RF Processors
- Modulator (PFM)
- Multi-channel Video Module
- Multi-throw Switch Assembly
- Receivers (Wideband, Crystal Video)
- Ripple Counters
- Switch Combiners
- Tracking Converters and Processors
- Transmitters & Receivers

Fiber Optic Products

We offer a line ruggedized fiber optic transmitters, receivers and transceivers

- Miniature fiber optic TX, RX and TR
 - CSP (Chip Scale Package): 0.38" x 0.38" x 0.1"
 - MINI (Very Small Form Factor): 0.80" x 0.54" x 0.36"
 - SFF (Small Form Factor): 1.91" x 0.53" x 0.38"
- Broad performance range
 - CSP: 100 Mbps up to 4.25 Gbps
 - SFF and MINI: 50 Mbps to 4.25 Gbps
- Operates from -40°C to +95°C
- Shock & Vibration (MIL-STD-883)
- Conformal coated for moisture resistance (MIL-I-46058C)

Optoelectronics Capabilities - Hermetic

We offer innovative design, modeling, Telcordia qualification, production and testing of optoelectronics devices

- Single mode and multimode fiber: 6 degrees of freedom (DOF) alignment and affixing with accuracy to less than 5 microns
- Beam Profiling and Fiber Lensing
- Processing of Fiber Arrays
- Electronics to Optical Measurement and Testing
 - Optical Spectrum Analysis and Lightwave Component Analysis
- Optical/Microwave Modeling
- Optoelectronics to Microwave Integration

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