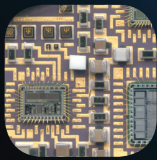
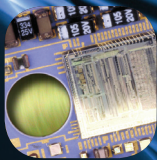
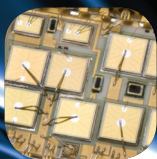
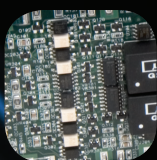




# Microelectronics Packaging



**TELEDYNE**  
MICROELECTRONIC TECHNOLOGIES  
Everywhere you look™

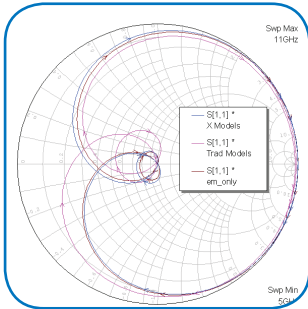


**LEADER IN THE  
SCIENCE AND ART OF  
MICROELECTRONICS**

# LEADER IN THE SCIENCE AND ART OF MICROELECTRONICS

In this world of rapidly changing technologies, one constant is the need for continually increasing the density of electronic circuits to meet the size and weight constraints of ever more complex systems.

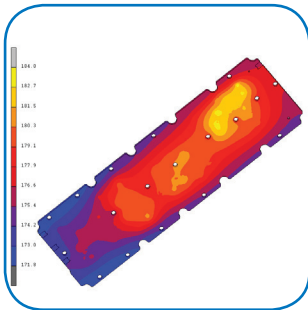
For over 50 years, Teledyne Microelectronics has met the challenge with creative packaging solutions for today's most demanding applications.



## 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
- Solder and Stud Bumping
- COB - Chip on Board
- SMT - Surface Mount Technology



## Quality

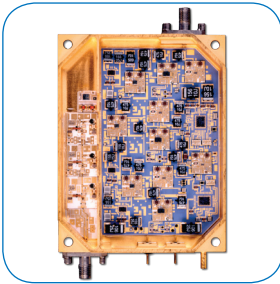
Every employee is committed to producing the highest quality product. We are a DoD DMEA Microelectronics Trusted Source, accredited for Microelectronics Packaging, Assembly and Test Services and maintain the highest level industry certifications:

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



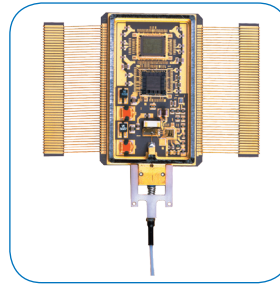
Contact our team to find out how we can help solve your toughest technology challenges.

# Microelectronics Packaging Solutions



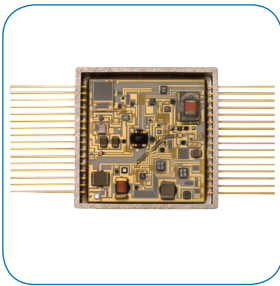
## RF & Microwave

MMICs, GaAs and GaN packaging with an emphasis on optimizing performance with precision interconnect processes, as applied to LNAs, IMAs, MCAs and MFAs



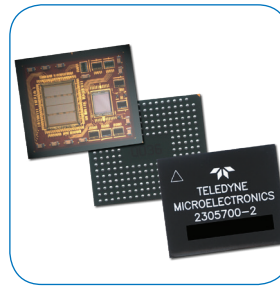
## Optoelectronics

Fiber optic transmitters and receivers; detachable fiber connector or pigtailed fiber, auto alignment, laser welding, fiber polishing and lensing, BER testing, RF over fiber, optical delay line modules



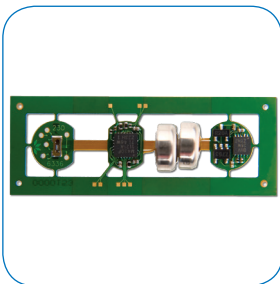
## Space

Class K space level modules for spacecraft, satellites, launch vehicles, reentry vehicles, total dose radiation space Micro Dosimeter



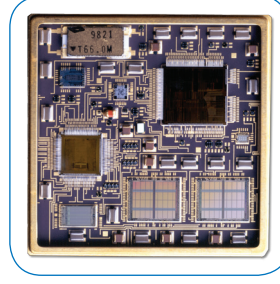
## High Density Interconnect

Signal processing, interface control modules, DSP,  $\mu$ P, FPGA, ASIC, memory modules, flipchip, UBM, dam & fill, balling & reballing



## Medical Devices

Cardiac rhythm management devices, neural and muscle stimulators, cochlear implants, drug infusion pumps, GI sensors, hearing aids, patient monitors



## Secure Communications

FIPS 140-2 Suite A & B, anti-tamper coatings, intrusion detection technologies, encryption protection

# Teledyne Sales Contacts

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