



Micross is a leading manufacturer of RF and Microwave surface mount semiconductor components and hybrids, for space, aerospace & defense applications, with over 20 years of space heritage and zero flight failures!



## HI-REL RF AND MICROWAVE CUSTOM & COTS MICROELECTRONICS

### Custom & COTS Single and Multi-Function Devices

Accelerate time-to-market utilizing our extensive library of standard SMT RF components and hybrids built on qualified, proven functional blocks and devices following the guidelines of: EEE-INST-002; MIL-PRF-38534; MIL-PRF-38535; All equivalent intl. docs, or an SCD

### SWaP Optimized RF/ $\mu$ W through 40+ GHz

Synthesized multi-layer semiconductor package designs reduce size, weight and power dissipation – critical for space and aerospace applications, from DC to Ka band

### Minimize Risk & Costs

By managing the device qualification process at the module level, the additional risks and costs associate with procuring & qualifying multiple components are eliminated. Documentation already in place.

**Switches:** GaAs, PIN, SPST through SP8T available with driver

**Amplifiers:** LNAs, Driver Amplifiers, & Power Amplifiers in GaAs or GaN

**Attenuators:** WAs or DSAs with or without driver

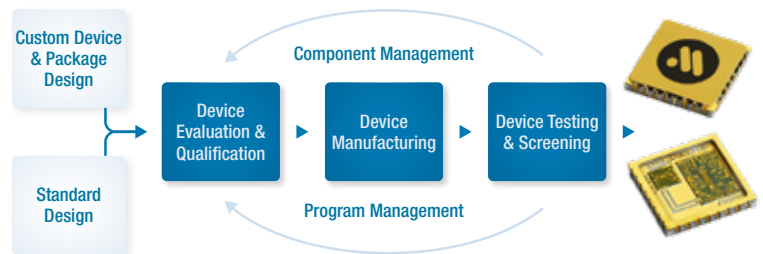
**Frequency Conversion:** Vector Modulators, Frequency Multipliers

### Multi-Chip Modules

Building Block Integration  
Optimize SWaP Performance & Reliability  
Part Management Reduction

### Custom Solutions

Your Die/Our Package  
Custom Package Design through 50GHz  
Electrical & Mechanical Characterization



### Control Products

High Power PIN Switch  
GaAs FET Switches  
Digital Step Attenuators

### Amplifier Products

GaN and GaAs Technology  
Low Noise Amplifiers  
Power Amplifiers

*At the Forefront of New Frontiers... 20+ Years of Flawless Performance in Space*



GPS III • MSP BLOCK III • KH-5 ARGON • WGS

# End-to-End Hi-Rel RF & Microwave Microelectronics

## Product Design

- Circuit Analysis
- Thermal Analysis
- Risk Mitigation Study
- Component Derating

## Package Design

- Schematic Capture
- Package Modeling
- Multi-Layer Leaded/Leadless

## Device Manufacturing

- Microelectronic Assembly
- Device Screening

## Device Testing

- Small Signal Testing
- Large Signal Testing
- Data Recording
- Fixture De-embedding

## Device Qualification

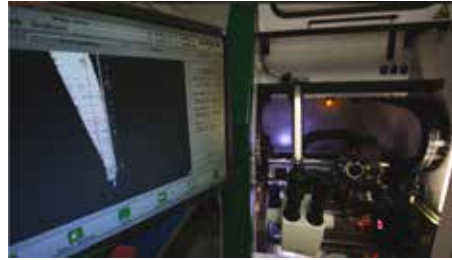
- Life Testing
- Destructive Physical Test
- Residual Gas Analysis
- Radiation Testing

## Program Management

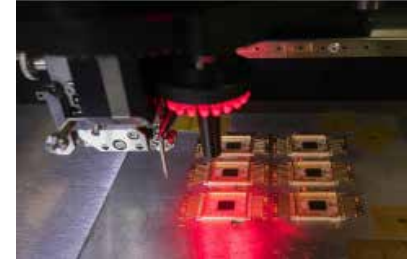
- Counterfeit Mitigation
- EOL/Obsolescence
- Customer Design Review
- Project Management



**Design**  
Specialist in GaN/GaAs Custom Solutions



**Manufacture**  
10,000 ft<sup>2</sup>, AS9100 & ISO9001 Certified Facility

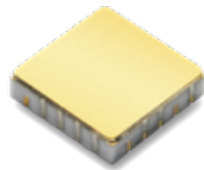


**Device Qualification**  
100% Tested to MIL-PRF Class S

## SINGLE CHIP MICROCIRCUITS

### MIL-PRF-38535 Class B and S

- WLAT
- 100% Screening (MIL-STD-883)
- QCI Groups A, B, C, D
- Radiation and ESD Testing
- Frequency Range: DC-50GHz



#### GaAs/GaN MMIC

- Control Products
- Amplifier Products

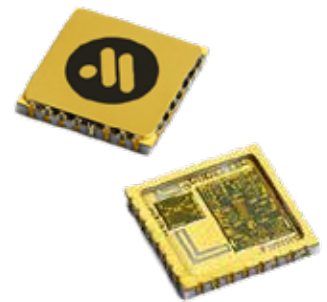
#### Includes:

- Configuration Control
- Lot Traceability
- Serialization
- DC and RF Test Data
- Temperature Performance
- Final Test Report

## HYBRID MULTI-CHIP MODULES

### MIL-PRF-38535 Class H and K

- Design Review
- Element Evaluation
- 100% Screening (MIL-STD-883)
- QCI Groups A, B, C, D
- Radiation & ESD Testing (if reqd)
- DC-40GHz



#### GaAs/GaN MMIC

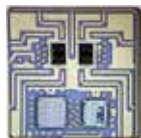
- Control Products
- Amplifier Products
- Driver Products

#### Includes:

- Configuration Control
- Lot Traceability
- Serialization
- RF Test Data
- Temperature Performance
- Final Test Report



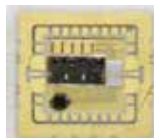
**RF Switches**  
SPST/SPDT/  
SP4T/SP8T



**RF Switches**  
with Integrated  
Driver



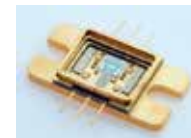
**Digital Step**  
Attenuator



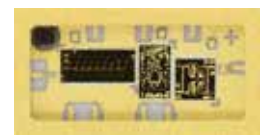
**LNA's/Drivers**



**GaN PA**  
with Matching



**MMIC Based**  
GaN PA



**Vector**  
Modulators



**micross**<sup>®</sup>

one source. one solution.<sup>®</sup>

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