

# Analog Devices Welcomes Hittite Microwave Corporation

NO CONTENT ON THE ATTACHED DOCUMENT HAS CHANGED



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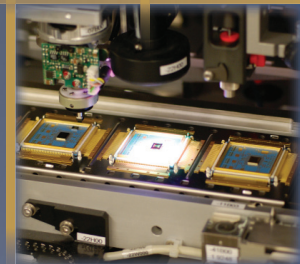
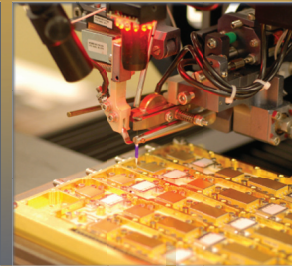
# MILITARY MANUFACTURING

**Standard & Custom Products, DC to 110 GHz!**

Analog, Digital & Mixed-Signal ICs, Modules, Subsystems & Instrumentation

## **Facilities, Manufacturing & Test**

- ◆ ISO 9001:2008 & AS9100:2009
- ◆ Class 100 Environment for S-Level Products
- ◆ Automatic Hybrid Assembly Equipment:  
Die Inspect/Pick, Die/Substrate Attach & Wire Bond
- ◆ IR Reflow Equipment for PCB Based Assemblies
- ◆ Automated Digital Product Test to 40 Gbps
- ◆ Automated RF, Microwave & Millimeterwave Product Test to 110 GHz



## **High Reliability Screening & Tests**

- ◆ Wafer Lot Acceptance Test (WLAT)  
Bond Pull & Die Shear  
SEM Inspection  
Metal & Dielectric Thickness Meas.
- ◆ Temperature Cycle
- ◆ Constant Acceleration
- ◆ High Temp Burn-In
- ◆ Visual Inspection
- ◆ Vibration
- ◆ Fine & Gross Hermeticity
- ◆ Radiographic Inspection
- ◆ Particle Impact Noise Detection
- ◆ Residual Gas Analysis
- ◆ ESD Characterization
- ◆ Serialized Test Data
- ◆ Qualification Report

**Hittite Delivers Qualified Solutions to Meet Your Specific Requirements!**



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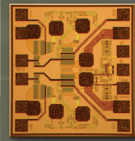
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# MILITARY PRODUCTS

*Military Qualified Components, Modules & Subsystems!*

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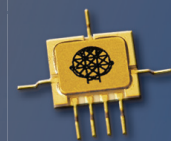
Chip (Die)



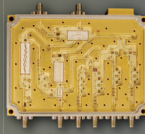
Dielectric Resonator Oscillator



Hermetic Modules



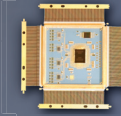
Hermetic SMT Package



Clock Generator



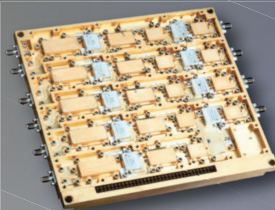
Integrated Sub-Assembly



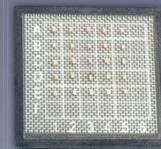
FPGA



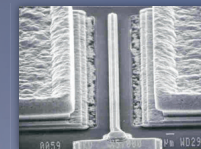
Switched Filter Bank



Multi-Channel Downconverter



Serialized Die in GEL-PAK



FET Channel SEM

## *Hittite Provides Proven Technical Solutions for Military Applications!*

- ◆ Vertical Integration with In-House MMIC & Module Design and Manufacturing
- ◆ Rapid Prototyping Capability Reduces Technical & Schedule Risks
- ◆ Custom IC Development Enables Advanced Performance with Miniature Size
- ◆ IC Manufacturing Infrastructure Provides Benefits in Controlling Performance, Quality, Schedule, Obsolescence, Packaging & Design Optimization
- ◆ Demonstrated Track Record of Industry Leadership and Key Supplier to the World's Most Trusted Defense System Integrators

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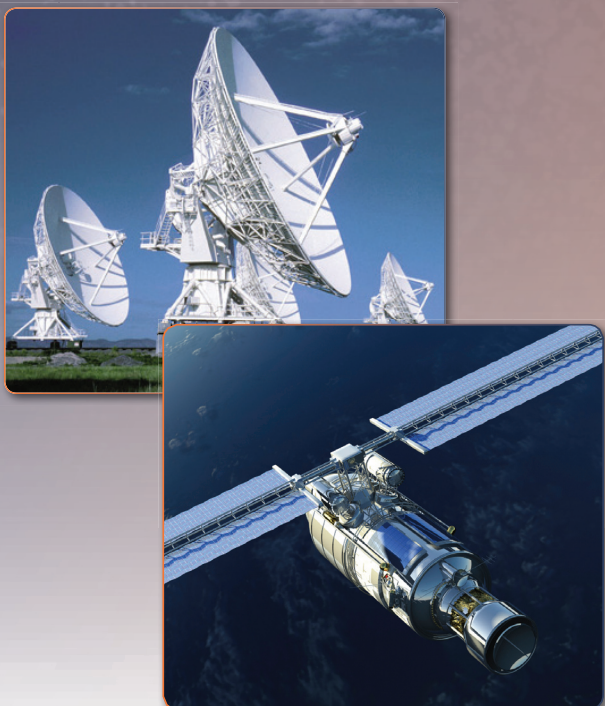
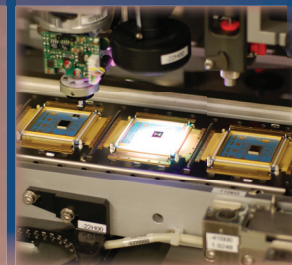
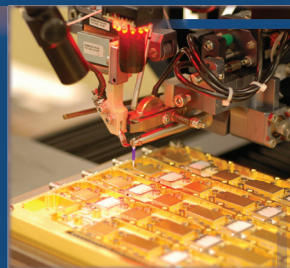
# SPACE MANUFACTURING

*Space Qualified Processes, People & Facilities!*

Analog, Digital & Mixed-Signal ICs, Modules, Subsystems & Instrumentation

## **Facilities, Manufacturing & Test**

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- ◆ Automated RF, Microwave &  
Millimeterwave Product Test to 110 GHz



## **Class S Screening & Qualification**

- ◆ VI to Methods 2010A & 2017K
- ◆ Temperature Cycle
- ◆ High Temperature Burn-In & Life Test
- ◆ Wafer Lot Acceptance Test  
Bond Pull & Die Shear  
SEM Inspection  
Metal & Dielectric Thickness Meas.
- ◆ Serialized Test Data
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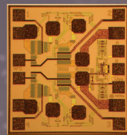
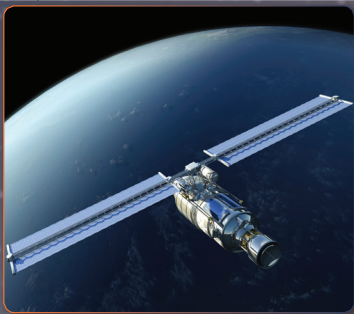
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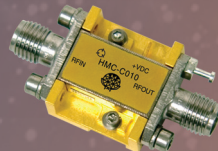
# SPACE PRODUCTS

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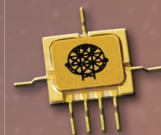
Analog, Digital & Mixed-Signal ICs, Modules, Subsystems & Instrumentation



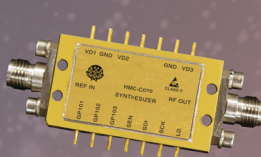
Chip (Die)



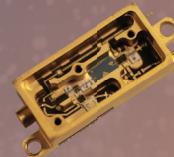
Hermetic Modules



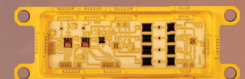
Hermetic SMT Package



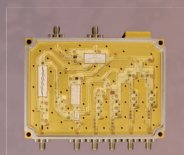
Hermetic MicroSynth™



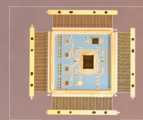
Downconverter



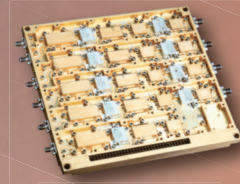
Switched Filter Bank



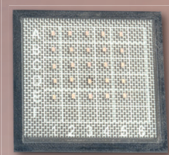
Clock Generator



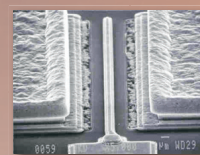
FPGA



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Serialized Die in GEL-PAK



FET Channel SEM

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- ◆ Qualified By Major Spacecraft OEMs
- ◆ Space Level Products, Component & Module Qualification
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