Custom Integrated Circuits
- Semiconductor device to system level knowledge
- Extensive library of proven Analog, Digital & Mixed-Signal ICs and MMICs
- Mechanical and thermal design

Facilities, Manufacturing & Test
- Class 100 environment for S-level product
- Automatic hybrid assembly equipment includes; die inspect/pick, die/substrate attach, and wire bond
- IR reflow equipment for PCB based assemblies
- Automated digital product test to 40 Gbps
- Automated RF, microwave and millimeterwave product test to 110 GHz

Automated Assembly: Wirebonding
Automated Assembly: Substrate & Die Attach

Automated Wafer Inspect & Handler

Module Burn-in

SEM / Physical Analysis

Vibration Test Stand

High Reliability Screening for Military & Space
- Custom Digital, Mixed-Signal & MMIC Solutions
- Custom MIC Modules & Subsystems
- Custom Instrumentation

Custom Mission Critical Applications
Hittite Microwave has a strong reputation for technically innovative, high performance, quality products and provides a wide portfolio of custom solutions for military and space environments.

Hittite Microwave is an innovative designer and manufacturer of analog, digital and mixed-signal ICs, Modules, Subsystems and Instrumentation for analog, digital, RF, microwave and millimeterwave applications covering DC to 110 GHz. Our products are developed using state-of-the-art GaAs, InGaP/GaAs, InP, SiGe, CMOS and BiCMOS semiconductor processes including MESFET, HEMT, pHEMT, eHEMT, HBT and PIN devices.

We design and supply custom ICs, Modules, Subsystems and Instrumentation, containing multiple functions for specific requirements. We select the most appropriate semiconductor and package technologies, uniquely balancing digital and analog integration techniques.

Hittite Microwave is a one-stop solution provider which has the unique ability to provide products that are designed, developed and manufactured in-house from the IC level to the integrated module/subsystem. In doing so, Hittite provides unparalleled value and service to our customers through our ability to control cost, performance, schedule, obsolescence and reliability.

Hittite Microwave is ISO 9001:2008, AS9100:2009 and ANS/ESD S20.20-2007 certified designer and manufacturer. Every component is backed by every Hittite employee and subcontractors’ commitment to total quality, thus providing our customers with products that meet or exceed all requirements, are delivered on-time and function reliably throughout their useful life.

What We Do
- Validated device models
- Specialty products include: Synthesizers, Radar Based Sensors, Tx / Rx Subsystems
- Military & Space Solutions
- Analog, Digital & Mixed-Signal ICs, Modules, Subsystems & Instrumentation

Standard & Custom Products, DC to 110 GHz
- Quality Assurance; Reliability & Screening
  - Complete environmental test lab
  - In-process qualification, reliability analysis & production screening
  - In-house inspection & test of incoming material
  - Periodic qualification & monitoring of ISO 9001 sub-contractors
  - Full product traceability

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Since 1985, Hittite Microwave has offered standard and custom MMIC die, hermetic packaged die, HMC hybrids, subsystems and instrumentation for analog, digital and mixed-signal IC military and space applications. We leverage our IC design capabilities to select the optimum device technologies for these applications. We employ internal resources for engineering, prototyping and production assembly/test. High reliability screening is offered for all products to customer specifications and / or requirements outlined in MIL-PRF-38534/38535.

Space Level Component & Module Qualification

Hittite Microwave offers MIL-PRF-38534 Class K & MIL-PRF-38535 Class S screening on die, hermetic, packaged die and hybrid assemblies.

Hittite has created an exemplary foundation of advanced semiconductor technologies for analog/digital applications.

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Quality Assurance; Reliability & Screening
- Complete environmental test lab
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Military Level Component & Module Qualification

**Commercial / Industrial Components & Assemblies**

- **AS9100:2009 Certified**
- **ISO 9001:2008 QMS**
- **MIL-PRF-38534 / 38535**
- **DC - 110 GHz Solutions**
- **MIL-PRF-38534 Class K & MIL-PRF-38535 Class B screening on die, hermetic, packaged die and hybrid assemblies.**

**Space Level Component & Module Qualification**

Hittite Microwave offers MIL-PRF-38534 Class K & MIL-PRF-38535 Class S screening on die, hermetic, packaged die and hybrid assemblies.

**Contact us Today to Discuss Your Mission Critical MMIC, MIC, Subsystem and Instrumentation Hi-Rel Product Requirements.**

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### Standard & Custom Connectorized Modules

- **Hermetic Module**
- **197 Channel SMT**
- **SMT Package**

Hittite is a major component supplier to hundreds of military radar, EW, and communications programs worldwide.

Hittite is qualified by major spacecraft OEMs worldwide, shipping large tonnage of thousands of space grade components which are currently operational on dozens of commercial, scientific & military spacecraft.

Hittite has Created an Exemplary Foundation of Advanced Semiconductor Technologies for Analog/Digital Applications

**GaAs MESFET**
- **0.05, 0.15, 0.25, 0.5, 2.0 µm GaAs MESFET**
- **42 to 60 GHz**

**GaAs pHEMT**
- **50, 70, 90 GHz**
- **6 to 12 GHz pHEMT**
- **Space Qualified**
- **Circuits to 110 GHz**

**InGaP HBT Analog**
- **Space Qualified**
- **Circuits to 34 GHz**

**InGaP HBT Digital**
- **Space Qualified**
- **Circuits to 40 GHz**

**GaN HEMT**
- **High Efficiency Power and Control Devices**
- **Space Qualified**
- **Circuits to 40 GHz**

**SiGe HBT**
- **90, 130, 150 GHz**
- **Analog / Digital Integration**
- **Linear Amplifier**
- **Large Signal Integration**
- **Circuits to 40 GHz**

**SiGe BICMOS**
- **Silicon on Insulator**
- **Linear Amplifier**
- **Large Scale Integration**
- **Circuits to 40 GHz**

**SICOS**
- **Silicon on Insulator**
- **Linear Amplifier**
- **Large Scale Integration**
- **Circuits to 40 GHz**

**SOI**
- **Linear Control Devices**
- **Wideband Circuits to 40 GHz**

**Ceramic Hermetic SMT to 40 GHz**

**COTS Ceramic SMT to 43 GHz**

**High Speed BGA's**

**COTS Plastic SMT to 40 GHz**

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Every product we design, manufacture and ship is backed by our commitment to total quality. We provide our customers with products that meet or exceed all requirements and function reliably throughout their specified life.

Military Level Component & Module Qualification
Commercial/Industrial Components & Assemblies
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- Full product traceability

High Volume Test Capacity
Class 100K Clean Rooms

Automated Assembly:
- Wirebonding
- Substrate & Die Attach
- Automated Wafer Inspect & Handler

SEM / Physical Analysis Module Burn-in

Automated Water inspect & Handler

Vibration Test Stand

Module Burn-in

SEM / Physical Analysis

Emission Test Stand

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