AEROSPACE AND DEFENSE

Analog Devices provides solutions from antenna to bits to enable today’s mission-critical platforms. We offer the industry’s broadest portfolio of components and high performance signal chain solutions, decades of system-level knowledge and expertise, custom modules and subsystems, and the capability to secure silicon all the way to data output.
Solving Tomorrow’s Aerospace and Defense Problems

Our industry-leading integrated solutions that reduce size, weight, and power, combined with our new capabilities in security and cryptographic solutions, allow us to continue to partner with customers across a wide range of applications and technologies.

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| Technology                                               |                        |
| Video buffers, receivers, and codecs                     |                        |
| MEMS accelerometers and gyroscopes                       |                        |

Technology
Flight Control Technology
- Data acquisition modules
- Precision converters
- Linear amplifiers
- Digital signal processors
- Isolation devices

Flight Controls
- Linear variable differential transformer (LVDT)
- Actuation systems
- Temperature and pressure monitoring
- Strain gage monitoring
- Level sensing

Power Plant Monitoring
- FADEC systems
- Health and usage monitoring systems (HUMS)

Video/Audio Controls
- In-flight entertainment
- On-board internet

Navigation
- Attitude heading and reference system (AHARS)
- VOR, GPS, NDB, and ILS receivers

Radar
- Weather radar

Radar/Communications
- RF and microwave devices
- High speed ADCs
- RF DACs
- Integrated, low noise synthesizers
- High power amplifiers

A commitment to innovation, performance, and reliability for defense and aerospace applications.

Aerospace Technology
- MEMS gyroscopes and accelerometers
- Inertial measurement units
- Digital signal processors
- Video encoders and decoders
- Security solutions

Collision Avoidance Systems

Communication Data Links

Radar Altimeters and Sensors

Advanced Payloads
Industry’s Broadest Portfolio

ADI helps our customers **break down the barriers between RF, analog, and digital, and rethink the signal chain**—to build, optimize, integrate, repackage, and redefine the entire signal chain to deliver the highest performance with the greatest reliability to mission-critical applications.

**Broadest portfolio of process technologies:** GaN, GaAs, SiGe, BiCMOS, CMOS, MEMS, and SOI

- 1000+ RF and microwave parts and ICs
- Analog and mixed-signal ICs
- Video and audio
- Digital signal processors
- LO frequency generation ICs
- Microelectromechanical systems
- Clock and timing ICs
- Power
Advanced Integration Capabilities

Our antenna-to-bits portfolio and ability to integrate on-chip, in-package, and on the line replaceable units (LRUs) enable us to provide customers with custom integrated solutions that mitigate new adoption risks and ensure the highest levels of performance and design efficiency.

ADI has extensive experience in the design and manufacturing of high performance miniature microwave, analog, and digital subsystems for demanding high reliability defense and space applications, including high power amplifiers, frequency converters, digitizers, integrated measurement units (IMUs), and precision instrumentation.

ADI Manufacturing and Test Abilities Include:

- Automatic hybrid assembly equipment; includes
  - 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, and millimeter wave product tests to 110 GHz
Enhanced Products
ADI offers a broad catalog of EP qualified components to support the defense and aerospace markets.

- Operating temperature range: –55°C through +125°C
- NiPdAu or SnPb leads
- Manufactured via a single processing flow baseline at a non-China facility
- No copper-based wire bonding

Die Products
ADI can provide die to customers to meet their flexible requirements. Bare die for selected products is available for customers to integrate and package.

Space Products
ADI designs components to address the challenges of electronics in rocket boosters, on-orbit space vehicles, and deep space missions. ADI provides Class S and Class K qualified die as monolithic hermetic devices or as fully integrated solutions in the form of a system in a package.

Space, Satellite, and High Reliability Systems
Analog Devices provides state-of-the-art RF and microwave, linear IC, data conversion, and digital signal processing technologies developed for high reliability applications with QML Class V processing for the specific needs of the space market.

Innovative and Robust Packaging Solutions
ADI offers a variety of packaging configurations that provide our customers the flexibility and reliability they need to be successful. Packaging solutions include enhanced products, die sales, NiPdAu lead finish products, MIL-STD-883 devices, QML Class V, Class S, and Class K.
Security Capabilities

Analog Devices works with customers at every level to enable system-wide security that meets the most exacting mission requirements. Our hardware- and software-based cryptographic technologies and cybersecurity software and services protect the entire signal chain, from antenna to bits—securing radio communications.

- FPGA-based security to redefine the MILCOM signal chain
  - Eliminating the SWaP consumption of custom security ASICs and supporting components
  - Supporting algorithm upgrades without hardware modifications

- Cyber Range™—security simulation and training capabilities

To learn more, visit analog.com/securitysolutions.
Aerospace and Defense Online Design Support

To assist engineers in designing the best systems possible, ADI has launched a dedicated online design site that provides quick and easy access to relevant product and technical design information. This online design resource contains a diverse range of technical resources including:

- Product data sheets
- Reference designs
- Sample interactive circuit diagrams
- Application notes
- Technical articles
- Circuit notes
- On-demand technical webcasts
- Video tutorials
- Design tools
- Design communities
- Webcasts

Stay up to date on the latest aerospace and defense products and solutions from ADI by registering for our free enewsletter. Registration is quick and easy: go to analog.com/subscribe to sign up today.