

Engineering Design Services Ridgetop Group Inc.

RIDGETOP GROUP
CUSTOM
ENGINEERING
DESIGN

Engineering Innovation



*Ridgetop Group is an accredited
DoD Category 1A Trusted Integrated
Circuit Supplier for design services, and
is AS9100C/ISO9001:2008 compliant*

Your Development Partner

Ridgetop Group focuses on high-reliability electronic designs that leverage our expertise in project management, design centering, technical writing, and test program development.

Our recent and past endeavors include mission-critical designs for aerospace, medical, and telecom applications.

Ridgetop's expert staff of engineers and state-of-the-art tools provide design services unsurpassed in quality and innovation.

Find out more at ridgetopgroup.com.

Ridgetop Custom Design Services —
Built for Your Success™



Ridgetop Group Inc

Design and Support Capabilities

Built for Your Success

- Innovative electronic diagnostic and prognostic solutions
- Full design-tool support for analog and mixed-signal ICs using varying process nodes (0.5 μ to 65 nm)
- High-speed design for analog-to-digital converter (ADC) and digital-to-analog converter (DAC) components
- FPGA-based design, from basic specification to the gate level, with timing analysis and programming
- IP blocks of specialized functionality
- Modeling and simulation
- Completion of back-end IC design from existing EDIF/SPIICE to GDSII
- Rescaling of legacy design to smaller process geometry
- Radiation-hardened (rad-hard) and foundry-specific design

Design

Ridgetop offers extensive experience and proven results for critical aerospace, automotive, and semiconductor sectors. Our wide range of achievements in design include:

- Laser rangefinder application for electro-optics firm
- Rad-hard ADC for aerospace imaging applications
- DAC for MP3 hardware chip
- DO-178- and DO-254-compliant design for commercial aerospace applications

Independent Design Reviews

Ridgetop has been commissioned to assess the following:

- Rad-hard and expected-useful-life analysis for high-resolution camera utilized in an orbital space satellite.
- Commercial assessment of capabilities for 90 nm semiconductor foundry to produce rad-hard ICs.
- Electronic prognostics trade analysis for life-cycle cost reduction.

Documentation Support

Ridgetop maintains a staff of fully trained document specialists familiar with producing comprehensive user manuals, proposals, and routine technical reports for our customers. Ridgetop has produced DO-178- and DO-254-compliant documentation for designs, which adhere to stringent protocol required in commercial flight control applications.

Diagnostics and Test

Ridgetop is very familiar with the development and execution of thorough test procedures, including test program optimization. These innovative methods provide specified fault coverage while minimizing actual test time expended. Test environments have included P1451-based sensors, as well as LabVIEW-based, IEEE-488, IEEE 1149 (JTAG), I2C, and commercial semiconductor test system settings.

Tools Available

In addition to a staff of highly trained personnel, Ridgetop maintains a full suite of advanced EDA analog and mixed-signal design tools, including design simulation, layout, and parasitic extraction. Alternatively, Ridgetop can use your tools for full compatibility and technology transfer.

Government Procurement

With DCAA-approved rates, Ridgetop is registered with established government purchase organizations, including AMCOM Express (Army) and Seaport-E (Navy). Over the years, Ridgetop has done business with a wide variety of government organizations, including five NASA Mission Directorates, NAVAIR, NAVSEA, SPAWAR, U.S. Department of Energy, and the U.S. Air Force.

Facilities

Ridgetop Group is headquartered in Tucson, Arizona, near prime contractors, military bases, and large commercial firms. Support and sales locations for Ridgetop exist in Germany, Belgium, Japan, China, and the United States. Ridgetop also provides personnel for on-site engineering, technical documentation, and other services.

Contact Ridgetop

Visit us at www.ridgetopgroup.com.

Speak with one of our staff at 520.742.3300.

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