



ADC Technology Overview

Ridgetop Group Inc.

Engineering Innovation



Your Development Partner

Ridgetop Group offers a diverse library of high performance analog-to-digital converter (ADC) intellectual property (IP). Ridgetop has extensive experience in development of innovative technology for mission-critical designs in aerospace, medical, consumer electronics, and telecom applications.

Ridgetop's expert staff of engineers and state-of-the-art tools provide quality and reliable technology to address customers' needs.

Find out more at ridgetopgroup.com.

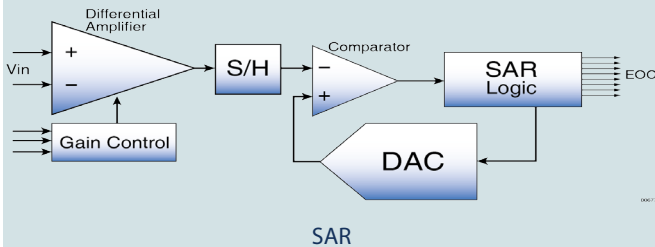


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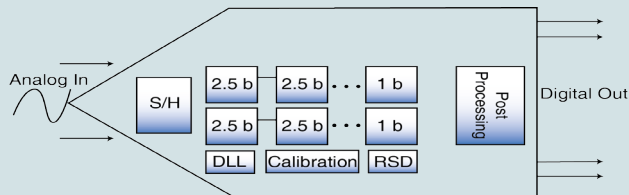
Technology and Design Capabilities

Topologies

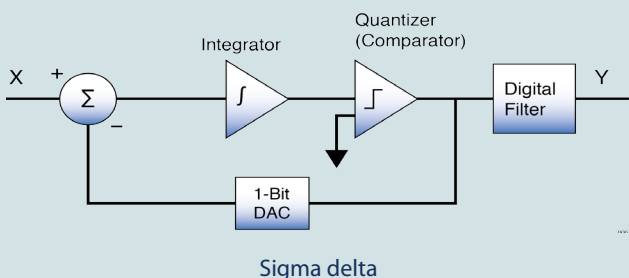
Over the years Ridgetop has developed ADCs using topologies such as SAR, pipeline, time-interval parallel pipeline, and sigma delta.



SAR



Pipeline and
Time-interleaved parallel pipeline



Sigma delta

ADC Technology

Ridgetop has the technical experience and proven results for critical aerospace, automotive, and semiconductor sectors. Our ADC IP library includes:

- Rad-hard ADCs for aerospace and military applications
- Non-rad-hard ADCs for commercial applications

Built for Your Success

- Full design support for analog and mixed-signal ICs using various process nodes down to 65 nm
- Sample rates from 400 KS/s to 3 GS/s
- Resolution from 7 to 18 bits
- IP blocks of specialized functionality
- Modeling and simulation
- Rescaling of legacy design to smaller process geometries
- Radiation-hardened (rad-hard) and foundry-specific design
- Fully customized ADC chips or IP blocks
- Calibration
- Gain Control

Foundries

Ridgetop maintains a staff of fully trained specialists with expertise in different foundries:

- TSMC
- IBM
- X FAB
- ON Semi

Processes & Geometries

Ridgetop's ADC technology capabilities extend across several processes and geometries. Ridgetop strives to meet customers' needs. Our technology is designed to be flexible for customized designs made to order. Some of the processes and geometries provided by Ridgetop include:

- CMOS 130 nm, 180 nm, 250 nm, 350 nm, 600 nm
- SiGe BiCMOS 130 nm

Radiation Hardness

Ridgetop Group's mission is to produce innovative and reliable technology. By offering ADC designs with high tolerance to total ionization dose (TID) and other radiation effects, Ridgetop provides high performance and reliability to its customers' end products or applications. Ridgetop has proven its excellence in generating top-of-the-line radiation-hardened technology for critical applications.

Contact Ridgetop

Visit us at www.ridgetopgroup.com.

Contact us at 520.742.3300 or email us at info@ridgetopgroup.com.

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

