

Configurable Mixed-Signal ICs Are Now Available For Automotive Applications

[Dialog Semiconductor](#) SLG46620-A Configurable Mixed-Signal IC (CMIC) makes the company’s GreenPAK customizable IC technology available for the automotive industry. This chip offers designers an alternative to discrete implementations and standard ICs when implementing safety, comfort and self-driving features (see the figure). According to the company, this CMIC, along with other members of the GreenPAK family, replaces dozens of components in automotive applications to optimize flexibility, footprint and BOM reduction. Additional benefits include lower costs, accelerated time to market and unified developments flows.

Each automotive-grade GreenPAK base die part can be programmed to implement multiple AEC-Q100 qualified ICs, with functionality including power sequencing, voltage monitoring, system reset, LED control, frequency detection, sensor interfacing and more. Every custom, factory-programmed IC is issued its own unique part number, top marking, automotive-grade datasheet and Production Part Approval Process (PPAP). In production, the customer’s unique GreenPAK configuration will be factory programmed and tested to ensure it meets its functional specification to automotive reliability levels.

The CMICs give OEMs the ability to create flexible base platforms that are easily customized at no additional cost to the designer. The scalable nature of Dialog’s automotive GreenPAK portfolio allows customers to choose the CMIC that best fits their needs and budget.

“Automotive electronics designers will benefit greatly from the flexibility and low latency that the SLG46620-A CMIC device offers,” said Tom Sandoval, senior vice president for the Automotive Business Segment of Dialog Semiconductor. “Because GreenPAK products quickly and efficiently process asynchronous inputs, the SLG46620-A is ideal for implementing functional safety features. This is just the first device in a family of CMIC Automotive products that Dialog will deliver to this exciting, evolving market.”

For more information on the SLG46620-A, please visit [SLG46620-A](#) product page.

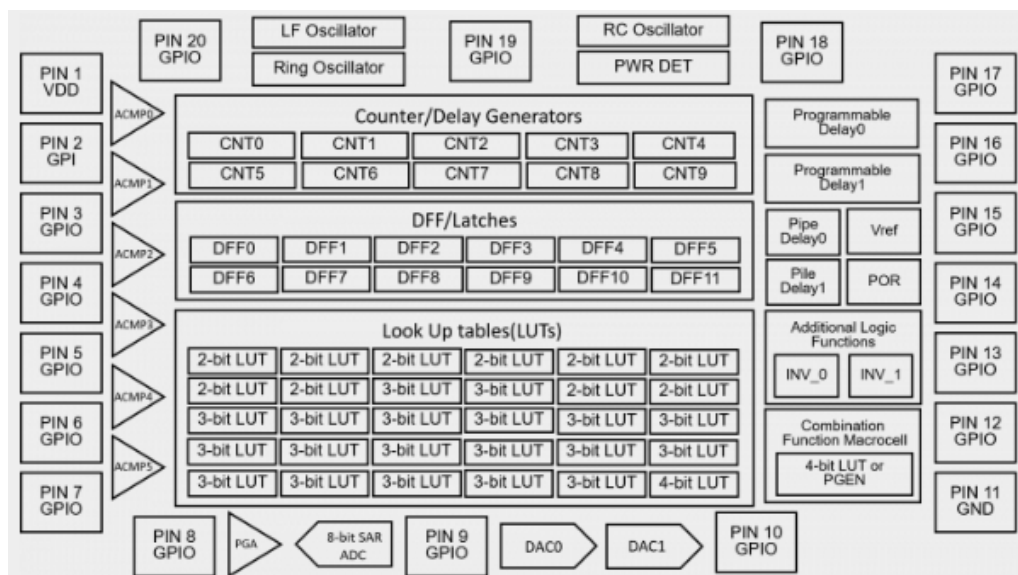


Figure. The SLG46620-A provides a small, low-power component for commonly used mixed-signal functions. The user creates their circuit design by programming the one-time non-volatile memory (NVM) to configure the interconnect logic, the I/O Pins and the macrocells of the SLG46620-A. This highly versatile device allows a wide variety of mixed-signal functions to be designed within a very small, low-power AEC-Q100 qualified integrated circuit.