

### ***Tiny, Programmable Mixed-Signal ASIC Features I<sup>2</sup>C Interface***

[Dialog Semiconductor's](#) SLG46811 is the smallest GreenPAK device to include an I<sup>2</sup>C communication interface as well as the least expensive one. The GreenPAK products are cost-effective programmable mixed-signal ASICs that are customer designed with GreenPAK Designer software. The SLG46811 integrates existing GreenPAK programmable logic with new shift register macrocells, a multichannel sampling analog comparator and a 92 x 8-bit pattern generator, all within a small 1.6-mm x 1.6-mm STQFN package (Figs. 1 and 2).

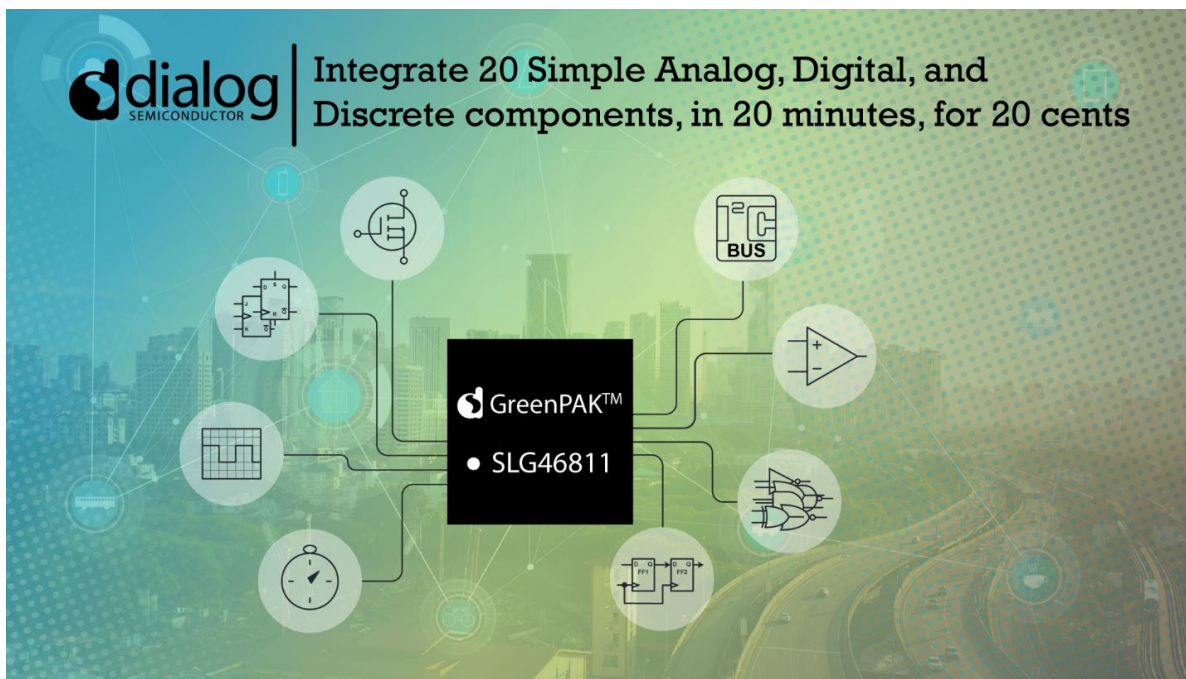
The SLG46811's multichannel sampling comparator is capable of sampling four analog signals, making it the smallest GreenPAK that can do so. Additionally, the shift register macrocells and 92-byte pattern generator allow engineers to take advantage of significant advancements with its nanoamp active-current consumption, greater customizability and customer-defined control.

"The SLG46811 is a significant addition to our GreenPAK product family" said John McDonald, vice president Marketing, CMBU at Dialog Semiconductor. "Current competitive solutions such as discrete logic and analog ICs, mixed-signal MCUs or small FPGAs are more expensive, have larger footprints, are highly complex, offer higher power consumption and longer latency."

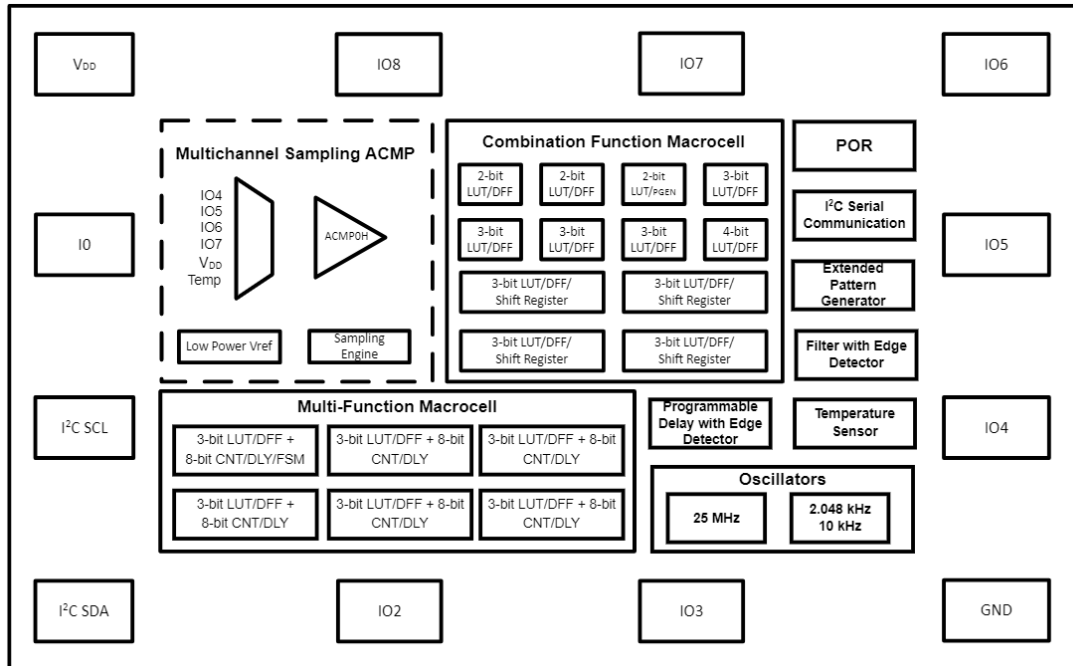
He added, "The SLG46811 includes all of these new and traditional features in its ultra-small form factor, achieving a very cost-effective solution improving not only traditional GreenPAK applications but extending GreenPAK products into new functions that allow engineers to create more complex and compact digital projects."

Applications for the SLG46811 include smartphones and fitness bands, portable and handheld electronics, smart meters, home appliances and IoT, personal computers and servers, PC peripherals, data communications equipment, robotics, and toys. It's also suitable for applications with communication interfaces where GreenPAK can be used as a simple master device.

For more information, see the SLG46811 [page](#).



*Fig. 1. Housed in a 12-pin 1.6-mm x 1.6-mm x 0.55-mm STQFN, the SLG46811 GreenPAK programmable mixed-signal matrix IC eliminates size constraints by offering the smallest GreenPAK device with an I<sup>2</sup>C communication interface.*



*Fig. 2. The SLG46811 device also offers a new, multichannel sampling analog comparator, making it the smallest GreenPAK that can sample up to four analog channels. Additionally, the IC offers digital macrocells, including shift registers and a long pattern generator block, that enable the device to generate master transactions for SPI, I<sup>2</sup>C, UART, and 1-wire. Small size and energy efficiency make the device well suited for a wide set of applications.*