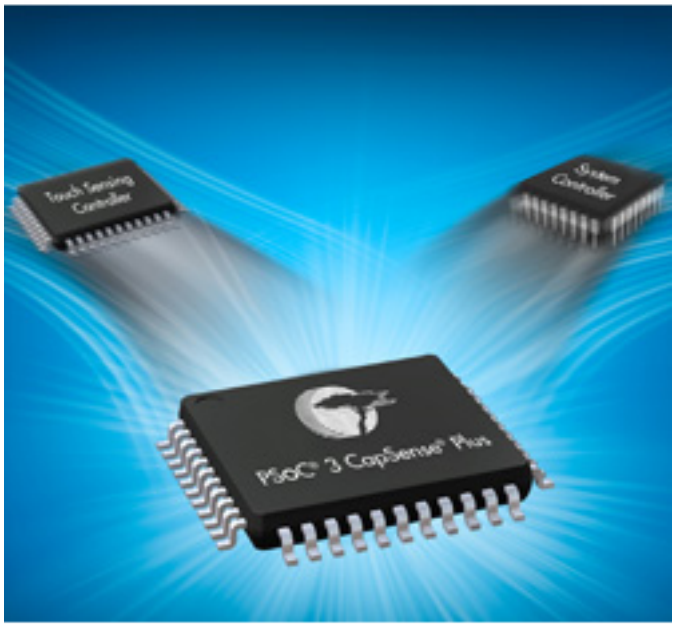
Cypress Adds SmartSense Auto-Tuning To PSoC 3 Programmable System-on-Chip



Cypress Semiconductor today introduced the PSoC 3 CapSense Plus capacitive touch-sensing solution for buttons, sliders, touchpads, and proximity sensing. It's the industry's best capacitive-sensing solution that can also perform general system control functions. To accomplish this task, the new product combines two premier Cypress product offerings, the PSoC 3 programmable system-on-chip and the industry-leading CapSense capacitive touch control technology.

PSoC 3 CapSense Plus lowers system design cost and eases the design process with Cypress's revolutionary, patent-pending SmartSense auto-tuning algorithm, which eliminates the requirement for system tuning. SmartSense enables automatic tuning of more than 10 parameters to achieve optimal touch sensing performance. The graphical CapSense software module in Cypress's PSoC Creator IDE makes it easy for designers to define combinations of buttons, sliders, touch pads and proximity-sensing capacitive sensors, and offers real-time feedback of parameters such as signal-to-noise ratio (SNR), finger threshold, noise threshold, and more.

The new PSoC 3 CapSense Plus devices offer up to 62 General Purpose I/O (GPIO) pins—all of which can handle CapSense signals—enabling the industry's largest number of capacitive sensing elements in a single chip. In addition, the new solution provides Cypress's legendary noise immunity that ensures robust operation in the presence of noise from a variety of sources. More information on the new solution is available at www.cypress.com/go/psocpluscapsense [1].

In addition, an informative web-based module entitled "Upgrade your Capacitive Touch-Sensing Designs" is available at http://www.eetimes.com/electrical-

engineers/education-training/courses/4... [2].

Cypress is offering the CY8CKIT-031 PSoC CapSense Expansion Board Kit to speed designs with the new solution. The CY8CKIT-031 includes both button and slider modules, three separate overlays for prototyping, and a resource CD with example projects and application notes. The new kit's adapter board allows engineers to plug in existing CapSense modules into the CY8CKIT-001 PSoC Development Kit or the CY8CKIT-030 PSoC 3 Development Kit, giving engineers access to the complete PSoC 3 ecosystem to create powerful, customized designs, and ease customers' ability to re-use CapSense designs within the PSoC 3 environment. The CapSense modules kits include the CY3280-BSM Simple Button Module Kit, the CY3280-SRM Radial Slider Module Kit, the CY3280-SLM Linear Slider Module Kit, and the CY3280-BMM Matrix Button Module Kit. For customer who already have these module kits, they are eligible for a 50 percent discount when purchasing the new CY8CKIT-031kit. Designers can get more information and order the new kit at www.cypress.com/go/cy8ckit-031 [3].

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