

Precision Power Conversion Platform Enables Disruptive Inverter Technology to Lower Solar Energy Cost

NORWOOD, Mass.--(BUSINESS WIRE)-- <u>Analog Devices, Inc.</u> today introduced a revolutionary addition to its power conversion platform with an innovative series of mixed-signal control processors. The ADSP-CM41x series is designed to dramatically simplify system design, lower cost, and improve efficiency and safety in solar, energy storage, and electric vehicle infrastructure. Solar panels and battery systems have become significantly less expensive in recent years, creating the need for inverter technologies to drive the next wave of efficiencies in solar energy. While disruptive new inverter designs have begun making improvements in size, weight, and cost reductions, they require further advances in digital processing to unlock their full potential. The new ADSP-CM41x control processors represent a breakthrough in power conversion design, with an unmatched level of hardware integration specifically tailored to solar and other emerging energy applications. By alleviating the need for complex external circuitry, the ADSP-CM41x control processors deliver design time and cost reductions, safety improvements, and the precision gains needed to maximize the impact of today's inverter designs.

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- Learn about ADI's Power Conversion Platform: http://www.analog.com/ADSP-CM41x.html
- Learn about ADI's portfolio of mixed-signal control processors:

Precision Power Conversion Platform Enables Disruptive Inverter Technology to Lower Solar Energy Cost (Photo: Business Wire)

http://www.analog.com/en/products/processors-dsp/cm4xx-mixed-signal-control-processors.html

Connect with engineers and ADI product experts on EngineerZone®, an online technical support community: https://ez.analog.com/community/analog-microcontrollers

"The cost of sustainable energy is the primary challenge facing the industry," says Mark Martin, vice president, Industrial

Automation, Energy and Sensors, Analog Devices. "With the ADSP-CM41x, Analog Devices has overcome fundamental hurdles in power converter design to help our customers solve this challenge. The controller's unique architecture and performance levels are key enablers for innovative inverter solutions."

Central to the ADSP-CM41x design is its breakthrough "dual independent core" safety concept, which enables the integration of safety redundancy and functions into a single chip. This first-ever architecture saves considerable development time and system cost by eliminating the need for an external supervisory element, which is the current standard. Equally important is the on-board integration of optimized hardware accelerators, designed to offload work from the processor core and boost the processing power available for core functions. Additionally, the device's on-board arc fault detection simplifies design, and enhances safety by using intelligent decision making to improve reliability and accuracy.

Building upon an already state-of-the-art power conversion platform

The ADSP-CM41x establishes a new benchmark in ARM core processing and analog precision, adding to the industry performance leadership established by the recently released ADSP-CM40x power conversion series. The ADSP-CM41x series seamlessly integrates with other critical signal chain components, including the AD740x sigma delta-based A/D converter, which replaces larger, more expensive sensor modules to reduce system cost and improve isolated current measurement. Also included in the platform is the ADuM413x series of isolated gate drivers featuring iCoupler® isolation technology that enables faster switching to further increase system efficiency.

Product Pricing and Availability

Product	Availability	Price Each Per 1,000	Packaging
ADSP-CM41x	Samples Now	Starting at \$10.99	210 Ball BGA
			176 Lead LQFP
ADSP-CM40x	Production Now	Starting at \$8.14	212 Ball BGA
		_	120 Lead LQFP
			176 Lead LQFP

About Analog Devices

Analog Devices (NASDAQ: ADI) designs and manufactures semiconductor products and solutions. We enable our customers to interpret the world around us by intelligently bridging the physical and digital worlds with unmatched technologies that sense, measure and connect.

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