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Industry's Only Family of Standard Non-Hybrid Space-Grade Power Converters Now Includes 28 Volt (V)-Input Radiation-Tolerant Options

Microchip's alternatives to inflexible hybrid-style converters improve design flexibility while reducing system size, cost, and development time

CHANDLER, Ariz., Jan. 25, 2022 (GLOBE NEWSWIRE) -- Space system designers cannot easily support non-standard voltages or add functions with traditional hybrid-style power converters. Microchip Technology Inc. **(Nasdaq: MCHP)** has eliminated the cost, complexity and customization challenges of these hybrid solutions by offering a discrete-component-based, space-grade DC-DC power converter family that now includes 28V-input, 50-watt (W) radiation-tolerant options.

"Our latest **28V-input SA50-28** products greatly simplify and accelerate system development," said Leon Gross, vice president of Microchip's discrete product business unit. "They are easier to customize than alternative space-grade power converters so they can meet specific voltage, current and other needs. Customers gain flexibility while reducing the size, cost and complexity of their space system designs."

Microchip's SA50-28 family is the industry's only off-the-shelf, 28V-input, radiation-tolerant power converter offering that is based on discrete components with surface-mount construction and non-hybrid assembly processes. Delivering more capabilities than alternative off-the-shelf, space-grade power converters, a single SA50-28 device with customized parameters eliminates the volume, weight and complexity problems of using hybrid solutions with their multiple devices and surrounding circuitry.

Microchip's comprehensive SA50-28 product line is a 20V- to 40V-input, 50W family with nine standard outputs of 3.3V, 5V, 12V, 15V and 28V in single- and triple-output configurations. The devices can be tailored to a system's exacting power needs in a relatively short time with minimal additional costs as compared to hybrid-style power converter products. Other features include high efficiency, low output noise, output inhibit control, overcurrent protection, external synchronization and full-rated power operation through −55°C to +85°C with linear derating to +125°C.

The SA50-28 family is part of Microchip's growing line of standard non-hybrid, space-grade power converters that enable designers to use commercially available, off-the-shelf components whose circuitry has a proven spaceflight heritage. The products join the radiation-hardened SA50-120 power converter family, introduced in February 2021, that reduces risk and development time for qualified space systems by allowing designers to start with proven commercially available off the shelf technology in ceramic or plastic

packages and quickly scaling up development using lower screening levels than traditional Qualified Manufacturers List (QML) requirements.

Availability

Microchip's radiation-tolerant SA50-28 family is available for volume production and limited sampling. Prototype-grade units are available from stock, and non-radiation-tolerant engineering units are also available with the same performance as the space-grade units at a lower cost. Delivery times are usually faster than hybrid-construction units with no associated lot penalty. The devices are complemented by Microchip's family of FPGAs, high-reliability radiation-hardened power semiconductors, and space-grade timing devices.

For additional information, including pricing, contact a Microchip sales representative, authorized worldwide distributor, or visit Microchip's **website**.

Resources

- Application Image: **www.flickr.com/photos/microchiptechnology/51815526895/sizes/l/**

About Microchip Technology

Microchip Technology Inc. is a leading provider of smart, connected and secure embedded control solutions**.** Its easy-to-use development tools and comprehensive product portfolio enable customers to create optimal designs which reduce risk while lowering total system cost and time to market. The company's solutions serve more than 120,000 customers across the industrial, automotive, consumer, aerospace and defense, communications and computing markets. Headquartered in Chandler, Arizona, Microchip offers outstanding technical support along with dependable delivery and quality. For more information, visit the Microchip website at **www.microchip.com**.

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