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Microchip Introduces the Industry's Smallest Package and Lowest Power MEMS Oscillators in DSC6000 Family

MEMS Oscillators Provide Semiconductor-Grade Reliability and Superb Frequency Stability Over a Wide Temperature Range

CHANDLER, Ariz., Sept. 26, 2016 /PRNewswire/ -- Microchip Technology Inc. (NASDAQ: MCHP), a leading provider of microcontroller, mixed-signal, analog and Flash-IP solutions, today announced the availability of the [DSC6000 family](#) of Micro-Electro-Mechanical Systems (MEMS) oscillators. The new family is the industry's smallest MEMS MHz oscillator with the lowest power consumption over full frequency range of 2 KHz to 100 MHz.



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The DSC6000 MEMS oscillators are excellent choices for use as clock references in small, battery-powered devices such as wearables and Internet of Things (IoT) devices in which small size, low power consumption, and long-term reliability are paramount. They also meet the stringent mechanical durability and reliability requirements within Automotive Electronics Council standard Q100 (AEC-Q100), so they are well suited for under-hood applications as well.

Microchip's DSC6000 oscillators are housed in industry standard 4-pin DFN packages ranging from as small as 1.6 x 1.2 mm up to 7 x 5 mm, and consume just 1.3 mA (typical)—less than half the current consumption of the lowest-power quartz-based oscillators. They also have a maximum operating temperature range of -40° C to +85° C and +/-25 ppm maximum drift over this range. They can sustain 500 times more shock and five times more vibration than a quartz oscillator, ensuring rock-solid stability in most operating environments.

"MEMS oscillators have enormous benefits over traditional quartz-based oscillators, especially as the products in which they are used become smaller and lighter, as well as demand small device footprints, low power consumption, and precision timing," said Rami

Kanama, vice president of Microchip's Timing and Communications Group. "Microchip offers the industry's most complete MEMS-based timing solutions. The DSC6000 family is the latest addition to our MEMS oscillator and MEMS clock generator families that provide the best-in-class combination of low power and high performance in a tiny package, ideal for IoT and mobile applications."

Microchip's ClockWorks® online configuration tool allows designers to easily select the right oscillator in terms of frequency, package size, ppm and temperature range and then request complimentary samples of that oscillator through the same tool. The TimeFlash Field Programming Kit provides instant frequency generation by fusing the One-Time Programmable (OTP) memory in a blank DSC6000 part that can be ordered separately.

Development Support

To facilitate evaluation and development, Microchip's ClockWorks Configurator is available online at clockworks.microchip.com/Timing. Microchip's TimeFlash Field Programming Kit that supports the DSC6000 family is available at <http://www.microchip.com/timeflash> for \$130-350. Evaluation boards programmed to customer specifications are available upon request through any Microchip sales representative or authorized worldwide distributor.

Pricing and Availability

The DSC60xx and DSC61xx are in production today and available now starting at \$0.81 USD in 10K quantities. Package options include: 1.6 x 1.2 mm; 2.0 x 1.6 mm; 2.5 x 2.0 mm in 4-pin VLGA; and 3.2 x 2.5 mm in 4-pin VDFN. For additional information, contact any Microchip sales representative or authorized worldwide distributor, or visit Microchip's Web site at <http://www.microchip.com/DSC6000>.

To purchase products mentioned in this press release, go to microchipDIRECT or contact one of Microchip's authorized distribution partners.

Resources

High-res images available through Flickr or editorial contact (feel free to publish):

- PR Graphic: www.flickr.com/photos/microchiptechnology/29606073196/sizes/l
- TimeFlash Field Programming Kit: www.flickr.com/photos/microchiptechnology/29641314135/sizes/l
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About Microchip Technology

Microchip Technology Inc. (NASDAQ: MCHP) is a leading provider of microcontroller, mixed-signal, analog and Flash-IP solutions, providing low-risk product development, lower total system cost and faster time to market for thousands of diverse customer applications worldwide. Headquartered in Chandler, Arizona, Microchip offers outstanding technical

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