

# Micron and Crucial Introduce Next-Generation SSD for Personal Storage, Media and Entertainment Markets

# New M550 SSD Offers Faster Performance, Longer Battery Life and High-Capacity Storage With Advanced Feature Set

# **Key Messages:**

- Reaches 20 times higher performance<sup>1</sup> than conventional hard drives for lightning fast boot, file and application load times
- Stretches battery life through dramatically better power efficiency, consuming as little as 6 percent as much power versus a traditional hard drive on comparable workloads<sup>2</sup>
- Offers an advanced feature set that includes hardware-based encryption, data protection against unexpected power loss and an advanced adaptive thermal monitoring system
- Available in 2.5-inch, mSATA and M.2 form factors with capacities up to 1TB

#### **Multimedia Elements:**

- 1. Media Kit
- 2. How We Make Our SSDs (video)
- 3. The Benefits of Upgrading to an SSD (video)
- 4. Installing an SSD Is Easier Than You Think (video)

BOISE, Idaho, March 18, 2014 (GLOBE NEWSWIRE) -- Micron Technology, Inc. (Nasdaq:MU), today announced a new personal storage class, solid state drive (SSD), continuing a legacy of developing foundational memory technology into reliable, high-performance storage solutions. The M550 SSD is designed to meet the increasingly demanding needs of high-performance computing, ultrathin, and media/video applications. It is available today to consumers, businesses and system builders under the Crucial<sup>®</sup> brand and to OEM customers under the Micron<sup>®</sup> brand.

# **Faster Storage Performance**

The M550 SSD offers 20 times higher performance<sup>1</sup> than a traditional hard drive, while consuming significantly less power. It enables quick boot-up, speedy file and program access, near instant wake from sleep, as well as ultra-efficient power management for increased battery life. In fact, the M550 draws as little as 0.15 watts during normal operation<sup>2</sup>.

The M550 design tightly integrates Micron NAND and firmware to deliver up to 95,000 input/output operations per second (IOPS). The drive's sequential speeds reach up to 550 MB/s for reads and 500 MB/s writes, which maxes out the capabilities of the SATA 6 Gb/s interface.<sup>3</sup> To understand the benefits of upgrading to an SSD and see the dramatic performance gains compared to traditional hard drives, watch our video.

#### **Advanced Feature Set**

The M550 SSD incorporates a host of advanced features to provide users with a powerful computing experience:

- Best-in-Class Hardware Encryption: Keeps personal files and sensitive information secure in the event of device theft or loss.
- **Device Sleep Low-Power Mode:** Enables the drive to draw practically no power while in sleep mode and respond instantly when the laptop is opened.
- Data Protection: Employs onboard power-loss protection and advanced error recovery techniques to protect the integrity of stored data.
- Adaptive Thermal Management: Dynamically adjusts power consumption based on system temperature for ultrasmall, thermally constrained systems.

Reliability: Our proprietary RAIN technology provides built-in fail-over protection at the NAND level.

### **Micron Quality You Can Trust**

The M550 SSD is built start-to-finish by Micron, providing the comprehensive quality control that only a NAND Flash memory manufacturer can supply. With more than 35 years of technology leadership, Micron is one of the world's largest and most trusted Flash storage manufacturers. The new drive utilizes Micron's proven 20-nanometer (nm) multilevel cell (MLC) NAND Flash to achieve terabyte capacity on the 2.5-inch form factor. Watch this behind-the-scenes video to see how Micron designs and builds SSDs.

"Built on our years of storage expertise, the M550 SSD combines leading-edge performance with an advanced feature set to create a powerful computing experience," said Darren Thomas, vice president of Micron's storage business unit. "For consumers, the Crucial M550 SSD offers a reliable storage solution from a trustworthy brand. For OEM customers, the Micron M550 SSD offers a slim, lightweight form factor for ultrathin designs, and advanced features for media and video applications."

Micron's advanced NAND Flash technology provides more storage in a smaller footprint, making it possible to pack half a terabyte of storage onto an SSD module the size of a stick of gum (80mm x 22mm). This M.2 form factor, along with the mSATA form factor, are key designs for current and next-generation ultrathin computers, including Ultrabook<sup>™</sup> devices, tablets and convertible PCs. Visit micron.com/ultrathin to see how Micron SSDs transform the ultrathin experience to meet the needs of the mobile computing market.

### **High-Performance Storage for Video Applications**

The M550 has also been chosen as the preferred storage solution for AJA, a leading manufacturer of high-quality digital video interface, conversion and desktop solutions for professional broadcast and post-production. "Our customers demand high reliability for capturing the very high data rates of HD and 4k video. Whether it's a motion picture or a Major League Baseball broadcast, data degradation is unacceptable," said John Abt, CEO of AJA. "The Micron M550 easily meets AJA's performance requirements."

The M550 also leverages controller technology from the industry leaders at Marvell. "Marvell is excited to collaborate with Micron to bring a new generation of cutting-edge SSDs to the video market," said Rajan Pai, General Manager and Vice President of the Data Storage Business Unit at Marvell. "The combination of Micron's leadership in NAND flash memory coupled with Marvell's industry-leading 88SS9189 SSD controller creates a powerful solution that fuels exceptional delivery of digital entertainment and video content to meet the next wave of consumer demand."

#### **Compatibility and Availability**

The Crucial M550 2.5-inch SSD is offered in 128GB, 256GB, 512GB and 1TB capacities, and it is available for immediate purchase through <u>select global channel partners</u> or direct through <u>www.crucial.com</u>. The smaller M.2 and mSATA form factors will be available through Crucial later this year, in capacities up to 512GB. The drive is backed by a three-year limited warranty<sup>4</sup> and is compatible with both PC and Mac<sup>®</sup> systems.

The Micron M550 SSD is also available in a 64GB capacity; all configurations are available for immediate sampling and are sold direct to OEMs and via the company's <u>distribution network</u>.

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# Micron Technology, Inc.

Micron Technology, Inc., is a global leader in advanced semiconductor systems. Micron's broad portfolio of high-performance memory technologies—including DRAM, NAND and NOR Flash—is the basis for solid state drives, modules, multichip packages and other system solutions. Backed by more than 35 years of technology leadership, Micron's memory solutions enable the world's most innovative computing, consumer, enterprise storage, networking, mobile, embedded and automotive applications. Micron's common stock is traded on the NASDAQ under the MU symbol. To learn more about Micron Technology, Inc., visit <a href="https://www.micron.com">www.micron.com</a>.

#### **About the Crucial Brand**

Crucial is a global brand of Micron Technology, Inc. Crucial® products include award-winning solid state drives (SSDs) and DRAM for more than 50,000 desktops, laptops, servers, workstations, and other systems. Crucial products are available worldwide at leading retail and e-tail stores, commercial resellers, and system integrators who can be found at <a href="https://www.crucialproducts.com">www.crucialproducts.com</a>. For more information or support, visit <a href="https://www.crucial.com">www.crucial.com</a>.

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<sup>&</sup>lt;sup>1</sup> Performance level based on averaged PCMark Vantage HDD test scores of five leading hard drives compared to the M550 SSD. Actual performance level may vary based on benchmark used and individual system configuration. Test setup: 256GB M550 SSD (firmware MU03), 2TB Western Digital® WD20EURS 7200RPM hard drive, 2TB Seagate® ST2000DM001 7200 RPM hard drive, 1TB Western Digital WD10EZEX 7200RPM hard drive, 750GB Seagate ST3750640AS 7200RPM hard drive, and 500GB Western Digital WD5000AVDS 7200RPM hard drive, all tested on an Intel® DZ87KLT-75K motherboard, Intel i7-4770K 3.50GHz processor, BIOS Rev. 0446, and Windows® 8 Pro 64-bit operating system using PCMark Vantage HDD test suite.

<sup>&</sup>lt;sup>2</sup> Power calculations are based on published specs for the 500GB Seagate® Momentus® 7200 rpm internal laptop hard drive, one of the most popular hard drives according to NPD data published in September 2013. The Momentus uses 2.5 watts of power on an average workload, compared to 0.15 watts on the M550 SSD. In everyday terms, this means significantly more battery life and substantial savings on power costs.

<sup>&</sup>lt;sup>3</sup> Quoted performance figures are based on 256GB, 512GB and 1TB capacities.

<sup>&</sup>lt;sup>4</sup> Micron-branded and Crucial-branded M550 SSD warranty terms may vary. Contact your Micron or Crucial sales representative for complete warranty terms.