Virtium Introduces High-Endurance, Low-Power, M.2-Compliant USB 3.1 Solid-State Drives for Industrial-Embedded Applications

New TuffDrive M.2. USB SSD Line Delivers Small-Form-Factor, Cost-Efficient, Durable Storage to SATA-less Systems

RANCHO SANTA MARGARITA, Calif. – April 30, 2019 -- Virtium, a leading provider of solid-state drive (SSD) and memory solutions for the Industrial Internet of Things (IIoT) markets, today introduced the TuffDrive® M.2 USB line of SSDs that bring high-endurance, low-power, small-form-factor solid-state storage to industrial-embedded applications. The new SSDs enable designers to take advantage of USB 3.1's widespread host support and efficiently connect M.2 form factor drives to host systems lacking the SATA storage interface. The drives provide cost-effective, secure storage to a wide range of uses that require lower capacities, such as operating system boot, code and application storage, virtualization, and light data logging.

Virtium's new TuffDrive SSDs leverage the M.2 2242 form factor (22mm x 42mm) and USB 3.1 to achieve small-footprint solid-state storage connected to host systems via a common, cost-effective interface. That combination reduces power consumption, and thus heat generation, compared to SATA-SSD storage. It also lowers electromagnetic interference (EMI), making the SSDs a viable option for medical, telecommunications and other EMI-sensitive applications, as well as for densely populated circuit boards. Additionally, the new drives' high-integrity M.2-to-USB 3.1 connection enables shock and vibration resistance superior to designs using alternative form factors and interfaces.

"Virtium is bringing to market the lowest-power, highest-reliability, M.2-compliant USB drives," said Scott Phillips, vice president of marketing at Virtium. "Our engineers took a highly

creative approach in developing an SSD line that leverages a form factor proven in embedded-industrial designs and a widely used, highly efficient interface. This achievement is particularly important for designers designing with IIoT SSDs and have to work with host systems that lack SATA, while still requiring lower power and heat."

"By combining the ubiquitous USB interface with the small form factor of the M.2 SSD, Virtium makes it easy for embedded-industrial systems designers to extend Flash data storage into new applications," said Alan Niebel, president of WebFeet Research and author of the *2018 Non-Volatile Memory Market Shares by Vendor Report*. "The drives' high endurance, low power and cost-effectiveness empower those designers with solid-state storage providing secure data storage in demanding designs."

The hot-pluggable TuffDrive M.2 USB line is designed with lower-capacity applications in mind; the embedded SSDs not only lower power requirements and generate less heat than SATA drives, they also reduce system bill-of-materials outlays because those applications call for relatively low capacities. The drives are available with high-endurance options and supported by Virtium's vtGuard® power-fail protection, vtView® industrial SSD software for drive monitoring, and value-added service and support that includes ten-plus years of product availability and in-field integration support. Additionally, Virtium offers optional AES-256 self-encryption for the TuffDrive M.2 USB line, as encrypted SSDs with this feature provide significantly greater protection for data at rest than drives without it.

The new TuffDrive M.2 USB solid-state drives are sampling now and have been qualified by select Virtium customers. For more information on Virtium's new TuffDrive M.2 USB SSDs, as well as the company's broad portfolio of solid-state storage and memory solutions, visit M.2 SSDs at www.virtium.com, call 888.847.8486 or email sales@virtium.com.

About Virtium

Virtium manufactures solid-state-storage and memory solutions for the world's top industrial embedded OEM customers. The company designs, builds and supports its products in the

USA, and provides a dedicated software team for custom storage solutions – all fortified by a network of global locations.

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