

PRESS RELEASE

Small size, highly reliable PCIe M.2 SSD for true industrial applications

Swissbit N-20m2 - a small form factor, low power, robust SSD with 4x PCIe-3.1 interface

Bronschhofen, Switzerland. 8 October 2020 – Swissbit announces the introduction of its N-20m2 SSD module, which delivers high speed PCIe performance from a small M.2 2230 form factor. The module utilizes Swissbit's recently launched EN-20 PCIe-BGA component to minimize PCB space requirements while offering a wide storage capacity range of up to 480 GB as well as 4-lane PCIe-3.1 and NVMe-1.3 compliance. The memory storage solution is targeted at small embedded systems and routers where the N-20m2 acts as a perfect boot device. Alongside the M.2 2230 size, the module is also available in standard dimensions of 2242 and 2280.

The new product range features industrial grade 3D-NAND that supports an ambient temperature range from -40°C to +85°C. The SSD-module combines high grade NAND flash chips, a sophisticated PCIe controller and firmware that supports demanding applications. The PCIe 4-lane interface with backwards compatibility to single or dual lane system designs operates according to the latest PCIe-3.1 specification and offers high bandwidth up to 1600 MB/s for sequential read and 770 MB/s for sequential write. Random performance surpasses 145,000 / 130,000 IOPS for read and write and nearly doubles the bandwidth of SATA SSDs.

Features for product robustness

For low power consumption without sacrificing performance, the new Swissbit SSD-module N-20m2 has an HMB (host memory buffer) feature, which uses system DRAM memory to maintain the flash translation table. Intelligent thermal management protects the long-term stability of the controller and maintains a continuous bandwidth even at the highest specified temperature of 85°C ambient. Other reliability and security features are End-to-End Data Path Protection (ETEP), AES-256 encryption, LDPC error correction with full page fail recovery and a protection against sudden power loss. Data care management adds extra protection of the stored data at high operating temperatures. For long term mechanical stability, the N-20m2 is designed with a 30 µinch gold-plated connector.

Designed for long service life

The NVMe protocol has been designed to efficiently use the bandwidth with a native nonvolatile memory command set resulting in ultra-low latency. Swissbit thus offers a high performance, high reliability, cost efficient, true

industrial SSD with up to 1 DWPD (Drive Writes Per Day) endurance. For even higher endurance requirements, N-26m2 offers a 10-fold writability in full pSLC mode.

A solution for demanding markets

“The N-20m2 is our dedicated solution for the latest PCIe based industrial and NetCom systems that demand increased performance without sacrificing stability, thermal resistance and endurance. With the development of our EN-20 BGA our designers have created a really small but powerful and robust module. Comprehensive and detailed SMART information combined with our monitoring tool lets users easily control the life time status of the SSD and schedule maintenance. What you get is a product that perfectly meets the requirements of the next generation of IoT systems” explains Roger Griesemer, General Manager Memory Solutions at Swissbit AG.

Available images

The following images are available for download in printable format at:

<http://www.htcm.de/kk/swissbit>

 <p>Image Source: Swissbit</p> <p>Swissbit’s PCIe-M.2 SSD product N-20m2 is available in three different sizes.</p>	 <p>Image Source: Swissbit</p> <p>Industrial 3D-NAND Flash Memory in a compact design</p>
 <p>Image Source: Swissbit</p> <p>Swissbit’s TLC version N-20m2 is available with capacities from 15 to 480 GB. For increased endurance, the SSD is also available as a pSLC version (N-26m2).</p>	

About Swissbit

Swissbit AG is the only independent European manufacturer of storage and embedded IoT solutions for demanding applications. Swissbit combines its unique competences in storage and embedded IoT technology with its advanced packaging knowhow. This expertise allows our customers to reliably store and protect data in critical industrial, NetCom, automotive, medical and finance applications as well as across the Internet of Things (IoT).

Swissbit develops and manufactures industrial-grade storage and security products “Made in Germany” with high reliability, long-term availability, and custom optimization.

Swissbit’s storage range includes SSDs with PCIe and SATA interface such as mSATA, Slim SATA, CFast™, M.2 and 2.5” as well as CompactFlash, USB flash drives, SD Memory Cards, micro SD Memory Cards and managed NAND BGAs like eMMC. Security products are available in various application specific editions as USB flash drives, SD Memory Cards, and micro SD Memory Cards.

Swissbit was founded in 2001 and has offices in Switzerland, Germany, USA, Japan and Taiwan.

For further information, please visit www.swissbit.com

Regional Headquarters:

Swissbit Germany AG
Bitterfelder Strasse 22
12681 Berlin
Germany

Tel: +49 30 936 954 0
Email: info@swissbit.com

www.swissbit.com

Headquarters:

Swissbit AG
Industriestrasse 4
9552 Bronschhofen
Switzerland

Tel: +41 71 913 03 03
Email: info@swissbit.com

www.swissbit.com

Contact:

Swissbit AG
Zeljko Angelkoski
Industriestrasse 4
9552 Bronschhofen
Switzerland

Tel: +49 172 6325706

Email: zeljko.angelkoski@swissbit.com

www.swissbit.com

Press Agency:

HighTech communications GmbH
Brigitte Basilio
Brunhamstrasse 21
81249 Munich
Germany

Tel: +49 89 500778-20

Fax: +49 89 500778-77

Email: b.basilio@htcm.de

www.htcm.de