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PRESS RELEASE

BGA device for embedded applications: EM-30 from Swissbit available now

Latest industrial-grade 3D NAND e.MMC series offers a robust, reliable and cost-efficient memory solution

Bronschhofen, Switzerland. December 7, 2021 – Swissbit has extended its range of miniaturized storage solutions with the launch of its EM-30 series with an e.MMC-5.1 standard interface. The BGA device uses industrial grade 3D-NAND and is available in capacities from 16 to 256 GB. With the new series, Swissbit has responded to the increasing demands of embedded systems for ultra-small, vibration-resistant designs with escalating memory capacity requirements. In addition to durability and a temperature range of -40 up to +105 °C, Swissbit's EM-30 also offers additional features over and above the e.MMC standard. These include a remote secure firmware update option and an extended lifetime expectation, making the EM-30 product series ideal for a wide range of applications that include POS/POI terminals, routers and switches, through to solutions for industrial automation, the Internet of Things (IoT), automotive or medical systems.

The EM-30 product series (153 Ball BGA, 100 ball BGA option available) complies with e.MMC-5.1 specifications and is fully downward compatible. With sequential data rates of up to 300 MB/s for read and 230 MB/s for write as well as 40 and 42 k IOPS for read and write random access, EM-30 delivers the performance of SATA SSDs, but with significantly smaller size requirements and costs.

EM-30 is designed for an industrial temperature range of -40 to +85 °C as standard. Optionally, the e.MMC is also available for an extended temperature range of -40 to +105 °C, designed to meet the requirements of demanding automotive applications.

Predictable service life, data refresh and reliability

Especially for soldered-down components, knowing the expected service life under real conditions is important. EM-30 devices offer the option to access detailed information about the consumption of the write cycles and internal resources via standard access to the e.MMC registers without the need for special access methods or drivers.

In addition, similar to large SSDs, the EM-30 firmware supports automatic background data refresh of read-only areas that for instance occur with boot media. This feature coupled with strong error correction, ensures that data

availability is always highly reliable, even if the data has not been accessed under prolonged periods of exposure to high temperatures.

A further special feature is the increased protection against data corruption in the event of sudden power loss, which not only occurs in regions with an unstable power supply, but also typically when handling medical devices or embedded systems.

Flexible configuration

If and when required, EM-30 devices can be partitioned by the user into several TLC and pSLC segments. If the maximum possible endurance of the NAND is required, Swissbit offers an EM-36 variant preconfigured to 100% pSLC. These types are also now available in capacities between 5 and 80 GB.

Availability

The EM-30 product line is available via all Swissbit sales channels, for more information please visit www.swissbit.com/en/company/our-partners/. Individual inquiries can also be addressed directly to sales@swissbit.com.

Available images

The following images are available for download in printable format at:
https://kk.htcm.de/press-releases/swissbit/

Image Source: Swissbit

Beyond the standard: Swissbit EM-30 e.MMC-5.1

Image Source: Swissbit

Memory solution for embedded applications: Swissbit EM-30 with e.MMC-5.1.

About Swissbit

Swissbit AG is the leading European manufacturer of storage, security and embedded IoT solutions for demanding applications. Swissbit combines its unique competences in storage and embedded IoT technology with its advanced packaging know how. This expertise allows our customers to reliably store and protect data in industrial, NetCom, automotive, medical and fiscal 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 e.MMC. 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. Swissbit owns the registered trademarks Swissbit® and Hyperstone®. Since 2020, the independent investment firm Ardian is holding a majority stake in the company to support its growth.

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