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Biolog Device´s secure fingerprint USB is made possible with Hyperstone´s U9 controller & API software.

At the heart of Biolog Device´s highly secure fingerprint USB is Hyperstone´s U9 flash memory controller. Biolog Device has chosen Hyperstone´s controller and API to support the BFU100A´s design due to their renowned reliability and flexibility in enabling customer firmware extensions.

Konstanz, Germany & Gyeonggi-do, Korea – The high performance features of the U9 Flash Memory Controller coupled with Hyperstone's API (Application Programming Interface) have allowed Biolog Devices' design to become a truly unique USB stick. It can be used across a range of embedded storage applications where security precautions are a must.

Matthias Steck, Deputy General Manager of Hyperstone AP underlines the role of the controller within the design: "By utilizing Hyperstone's API software kit alongside our USB 3.1 controller, Biolog Device has developed a high quality solution. This is a design where secure data storage, encryption and broad flash support is key and we are proud to have played such a pivotal role in its design." The BFU100A has a fingerprint sensor integrated into the front panel of the USB which is controlled through software commands sent over a high speed SPI interface. "Highly secure personal settings, like mobile payments, accessing cloud services and unlocking phones can be achieved through fingerprint biometrics, and in our rapidly digitalized world, devices like the BFU100A are profoundly beneficial" states Dong Yun Kim, CTO of Biolog Device.

Hyperstone's API permits the addition of proprietary firmware extensions to the existing firmware. This enabled Biolog Device to integrate their proprietary fingerprint sensor, thus enabling extra authentication and encryption to further protect data as it is passed through the controller onto the flash. Hyperstone´s U9 is employed to manage the flow of both biometric and user data stored inside the USB stick. The firmware extensions developed by Biolog Device using Hyperstone's API ensure the fast recognition speed of fingerprints, while retaining excellent read and write performance of data to and from the flash memory.

Biolog Device´s BFU100A is fully compliant with USB 3.1 and boasts SuperSpeed performances guaranteeing maximum performance with secure data processing. Hyperstone´s U9 controller also offers a comprehensive compatibility across a wide range of NAND flash memories. In this instance, Biolog Device has chosen a MLC flash to safely store data.

Due to its low power-consumption, meticulous encryption software and capacity to efficiently store multiple authentication codes, the BFU100A is ideally suited for applications where secure data storage is imperative.

Hyperstone´s USB 3.1 Flash Memory Controller the U9 is inside Biolog Device´s secure fingerprint USB Stick.

Flash Memory Controllers and API

The complete range of Hyperstone's flash memory controllers with application and flash-specific firmware represents a unique platform for industrial high endurance flash memory storage devices. Support is available for a range of host interfaces, including CompactFlash (CF), SecureDigital (SD), eMMC, SATA, and USB. Together with Hyperstone's proprietary hyReliability™ firmware, all controllers provide enhanced endurance and data retention management as well as rigorous fail-safe features, all of which are mandatory for industrial embedded applications. Implemented hardware features and special firmware developments enable the highest data retention and refresh mechanisms, even when storage applications are faced with extreme environmental conditions. The integrated AES enables high performance data encryption on-the-fly. A unique ID is available for security applications. Biolog Device uses Hyperstone's flash controller security features. The Hyperstone API enables the implementation of unique features and firmware extension, while full ownership of the developed code stays with Biolog Device.

Ends.

About Biolog Device

Biolog Device is a professional Smart Phone Camera module components manufacturer, established in 2008. The company strives to manufacture the best products and satisfy client requirements on product quality since its foundation. In 2014, Biolog Device entered the optimized production market in Vietnam following on from China. The company is continuously growing based on the accumulated manufacturing technologies in the camera module component areas of OIS (Optical Image Stabilization) and AF (Auto Focusing).

To learn more about Biolog Device, please visit www.biologdevice.com

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About Hyperstone

Hyperstone is a fabless semiconductor company based in Konstanz, Germany with a strong focus on world class flash memory controllers for industrial embedded markets. Its products set the standard for high-reliability flash management providing confidence for NAND flash performance in mission critical situations. Hyperstone's products include microcontrollers for various host interfaces and performance points, e.g. SATA, USB, CF/PATA, SD/microSD and eMMC. Flash controller firmware is supplied complementary to the controllers and customized for each flash and application.

To learn more about Hyperstone, please visit www.hyperstone.com

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