SiliconMotion

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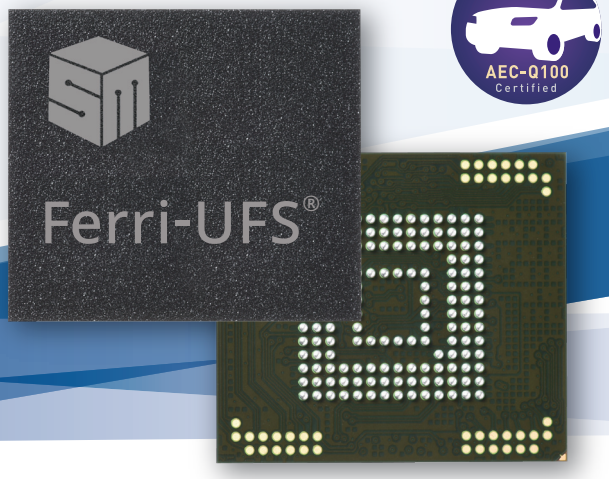
Ferri-UFS®

Industrial / Automotive UFS Memory



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Ferri-UFS is a highly integrated solution which combines a feature-wise flash controller compliant with the latest UFS 3.1 standard and standard NAND flash memory. Its high-performance storage accessing, better power efficiency, and ease of system design make the Ferri-UFS a fabulous solution for automotive, industry, embedded and portable applications.

The Ferri-UFS leverages industry leading technology and experience in NAND management, and supports the UFS 3.1 advanced features such as HS-Gear4 x 2-lane mode and command queue. With extended temperature and various capacity support, offering easy and rapid design integration, the Ferri-UFS also ideally fits the requirements of point-of-sale terminals, networking and telecommunications equipment, and a variety of leading-edge industrial applications. With superior performance, multitasking support, and high stability, the Ferri-UFS can seamlessly serve the needs of a wide variety of mobile devices and new booming embedded/portable applications.

Applications

Embedded applications using eMMC today can migrate to Ferri-UFS for higher performance and capacity options. Additionally, Ferri-UFS can be customized via firmware for specific features and applications.

As the world's leading NAND controller vendor, Silicon Motion builds its products to the highest quality and reliability standards – backed by outstanding sales and technical support from design through post production. Silicon Motion's commitment to automotive and industrial quality is fully incorporated throughout the design, manufacturing and qualification phases of its Ferri-UFS products.

Why Ferri-UFS®

Easy to adopt
- Easy PCB traces routing and layout with high PCB/SMT yield
- Excellent long-term reliability and good heat dissipation

Lower total cost of ownership
- Eliminate requalification cost from NAND generation change
- Long product life cycle

Eliminate down time
- Supports self-monitoring, analysis and reporting health status
- Field programmable firmware update available

Customization available
- Configurable enhanced partition with content preload / protect
- Technical customization available

Ferri-UFS®

Features

High-Efficiency Error Correction
- Advanced Hardware LDPC (ECC) Engine
- StaticDataRefresh™ and EarlyRetirement™ technologies ensure the data reliability

Power Efficiency
- Dynamic power management technology enables multiple power saving modes

Advanced Global Wear Leveling to Enhance Reliability
- Even distribution of program / erase cycles across all NAND flash chips
- Maximizes the lifespan with low Write Amplification Index (WAI)

Robust Data Protection
- Advanced system level protection against unstable power
- Software / hardware write protect option
- Multiple user data security zones
- Software / hardware secure erase function
- PowerShield and DataPhoenix technologies prevent data corruption in case of sudden power lost

Automotive IVI compliance to the AEC-Q100 requirements

Specifications

Part Number	SM671
Host Interface	UFS 3.1 HS-Gear4 x 2-lane
Dimensions	11.5 x 13 x 1.2(mm)
Package	153-ball BGA
Temperature Support	Commercial Temp (-25°C to +85°C) Industrial Temp (-40°C to +85°C) Automotive Grade (-40°C to +85 / +105°C)
Green Product	Compliant to RoHS (Restriction to Hazardous Substances Directive) 2.0 / Halogen free

Available Density

TLCmode	*64/128/256/512GB*

For more informaiton about Ferri-UFS®, please go to www.siliconmotion.com or send email to **ferri@siliconmotion.com**

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