

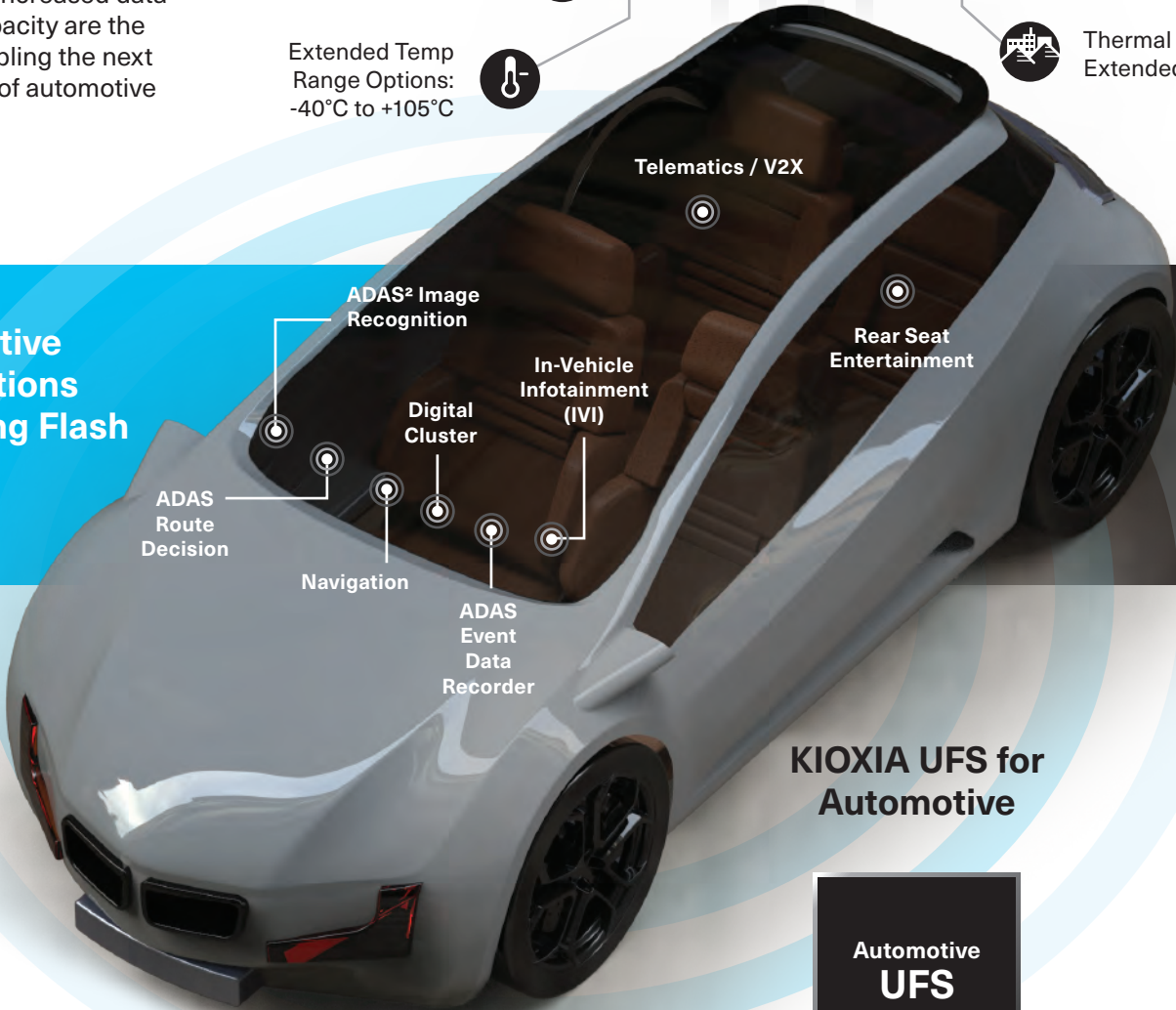
# DRIVING THE FUTURE OF AUTOMOTIVE APPLICATIONS

Anytime, anywhere connectivity has extended to the vehicle. Advanced driver assist features and infotainment systems enhance the experience but place a greater demand for in-vehicle memory solutions.

Accelerated processing power and increased data storage capacity are the keys to enabling the next generation of automotive systems.



## Automotive Applications Requiring Flash Storage



## KIOXIA UFS for Automotive



### Why UFS?

- High performance
- Fast boot times
- Better power efficiency
- Supports full duplexing
- High density offerings
- Industry Standard Support
- Thermal control, extended diagnostic functions

The first to introduce UFS technology<sup>6</sup>, KIOXIA continues to move the technology forward with the industry's first UFS 4.0 for Automotive applications<sup>7</sup>. UFS 4.0 devices integrate the company's BiCS FLASH™ 3D flash memory and a controller in a JEDEC-standard package. UFS 4.0 incorporates MIPI® M-PHY® 5.0 and UniPro® 2.0 and supports theoretical interface speeds of up to 23.2 gigabits per second (Gbps) per lane or 46.4 Gbps per storage device. UFS 4.0 is backward compatible with UFS 3.1.

### UFS 4.0 CAPACITIES<sup>4</sup>

- 128GB
- 256GB
- 512GB

KIOXIA delivers flash-based products for next-generation storage applications. Having invented NAND flash over 35 years ago, KIOXIA is now one of the world's largest flash memory suppliers – and continues to move the technology forward.

[1] Electrical component qualification requirements defined by the AEC (Automotive Electronics Council).  
[2] Advanced Driving Assistant System.  
[3] Universal Flash Storage (UFS) is a product category for a class of embedded memory products built to the JEDEC UFS standard specification. Due to its serial interface, UFS supports full duplexing, which enables both concurrent reading and writing between the host processor and UFS device.  
[4] Product density/capacity is identified based on the density/capacity of memory chip(s) within the Product, not the amount of memory capacity available for data storage by the end user. Consumer-usable capacity will be less due to overhead data areas, formatting, bad blocks, and other constraints, and may also vary based on the host device and application. For details, please refer to applicable product specifications. The definition of 1Gb = 2<sup>30</sup> bits = 1,073,741,824 bits. The definition of 1GB = 2<sup>30</sup> bytes = 1,073,741,824 bytes.  
[5] PPAP - Production Part Approval Process  
[6] KIOXIA Corporation's first sample shipment, as of February 8, 2013.  
[7] As of January 29, 2024  
MIPI Alliance Specification for M-PHY, MIPI® and M-PHY® are registered trademarks owned by MIPI Alliance.  
JEDEC is a trademark of JEDEC Solid State Technology Association.  
All other company names, product names and service names may be trademarks of their respective companies.  
The product image shown is a representation of the design model and not an accurate product depiction.  
All comparisons are to previous generation devices.  
© 2024 KIOXIA Corporation. All rights reserved.