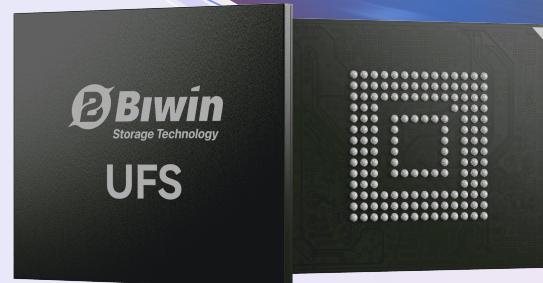


UFS 3.1

BIWIN introduces its UFS 3.1 high-speed flash storage solution for flagship smartphones with write speeds up to 1800 MB/s, more than 4 times faster than previous-generation universal flash storage.

It offers read speeds up to 2100 MB/s and capacities up to 512 GB, with a compact size of 11.5 x 13.0 mm.

This solution is widely used in applications such as smartphones, tablets, smart cameras, AR/VR, smart vehicles, drones, and more.



Key Features

High-Speed Read/Write

BIWIN UFS 3.1 delivers sequential read speeds up to 2100 MB/s and sequential write speeds up to 1800 MB/s, providing performance that is significantly faster than previous-generation storage solutions. This makes it ideal for high-end smartphones, tablets, and VR/AR devices that demand high storage bandwidth.

Wide Compatibility

Strictly adhering to JEDEC standards, the BIWIN UFS 3.1 ensures seamless compatibility with existing SoC platforms. Device manufacturers can easily upgrade from older UFS solutions without modifying hardware designs, unlocking the benefits of the latest flash memory technology with minimal development time and cost.

Low Power Consumption

In DeepSleep mode, BIWIN UFS 3.1 reduces power consumption to ultra-low levels, offering exceptional energy efficiency and significantly extending battery life for mobile devices.

Cost Efficiency

The HPB (Host Performance Booster) feature enhances performance by caching the mapping table in the device's memory, reducing read latency and boosting random read speeds. This improvement achieves significant performance gains without requiring costly high-end controllers, offering both cost-effectiveness and performance.

Technologies

Write Protection

Quick Erase

Wear Leveling

Garbage Collection

TRIM Command

Applications



Mobile Phone



Tablet



Laptop



Drone



VR / AR

Specifications

Model Name	UFS 3.1
Interface	UFS 3.1
Capacity	128 GB / 256 GB / 512 GB
Sequential Read (Up to)	2100 MB/s
Sequential Write (Up to)	1800 MB/s
Operating Voltage	$V_{cc} = 2.4 \text{ V} - 2.7 \text{ V}$ $V_{ccq} = 1.14 \text{ V} - 1.26 \text{ V}$
Dimensions	11.50 x 13.00 mm
Packaging	FBGA 153 Ball
Operating Temperature	-25°C to + 85°C
Storage Temperature	-40°C to + 85°C
Supported Platforms	Mediatek, Unisoc, Qualcomm, Rockchip
Warranty	3-Year Limited

Order Information

Capacity	Part Number	Packaging	Dimensions
128 GB	BWU3AKG16D128G	FBGA153	11.50 x 13.00 mm
256 GB	BWU3AKG26D256G	FBGA153	11.50 x 13.00 mm
512GB	BWU3AKG46D512G	FBGA153	11.50 x 13.00 mm

1. Tested by BIWIN labs. Actual performance may vary due to systems, devices, or environment.
2. Maintenance and future updates are required throughout the product lifecycle. Specifications are subject to change without notice.
3. The pictures are for illustration only. Actual products may vary due to product enhancements or changes.
4. Not all products are sold in all regions of the world.
5. Please visit www.biwintechnology.com for warranty details in your region.
6. For more information, please contact sales@biwintech.com.

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