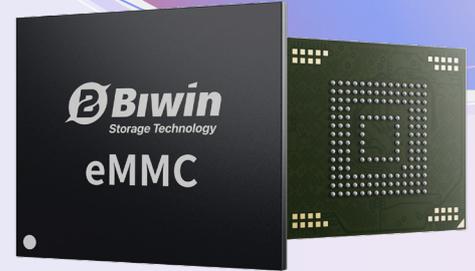


TAE208 Automotive eMMC

The BIWIN TAE208, with the eMMC 5.1 standard for automotive-grade performance, is built with high-quality 3D TLC NAND. It's designed for a wide range of in-vehicle applications, including intelligent cockpit systems, in-vehicle infotainment (IVI), central control units, navigation, digital instrument clusters, T-BOX modules, and domain controllers.

Supporting HS400 high-speed mode, the TAE208 also features FFU, Boot Partition, RPMB, and idle data acceleration to optimize performance. Housed in a compact BGA package, the TAE208 offers capacities up to 128 GB, providing a high-density solution for space-constrained automotive designs. To withstand the harsh conditions of vehicle environments, the TAE208 supports an operating temperature range of -40°C to +105°C, fully compliant with AEC-Q100 Grade 2 standards.

The BIWIN TAE208 eMMC meets the stringent demands of automotive systems and offers an impressive combination of high endurance, low power consumption, high bandwidth, and long-term reliability.



Key Features

High Performance with AEC-Q100 Compliance

BIWIN TAE208 eMMC strictly adheres to the eMMC 5.1 standard and is AEC-Q100 qualified. It supports HS400 high-speed mode, delivering faster data transfer rates to meet the demands of complex environments, including smart cockpit features and autonomous driving.

Large Capacity, Versatile Storage

The BIWIN TAE208 eMMC utilizes 3D TLC NAND technology to deliver stable, reliable storage while offering cost efficiency. With a maximum capacity of 128 GB, it is designed to meet the extensive data storage needs of modern automotive systems, including intelligent cockpit features, central control units, and navigation systems.

Data Integrity and Protection

The BIWIN TAE208 eMMC features a Boot Partition to ensure reliable and secure system booting. The RPMB (Replay Protected Memory Block) enables encrypted storage to protect user privacy, while the idle data acceleration feature further optimizes system performance, increasing response speed.

High Durability, Stable Operation

The BIWIN TAE208 eMMC meets the Automotive Grade 2 temperature standards, operating within a range of -40°C to +105°C. This ensures exceptional durability and consistent performance in extreme environmental conditions. Designed to withstand high vibration, humidity, and other challenging factors, it is the ideal solution for automotive applications that demand stable operation in harsh environments.

Technologies

Bad Block Management

Power Loss Protection

Global Wear Leveling

RPMB Partition (Replay Protected Memory Block)

FFU (Firmware Field Upgrade)

ECC (Error Correction Code)

Applications



Smart Cockpit



IVI



Central Control



Navigation



Autonomous Driving



Instrument Cluster



T-BOX



Domain Controller

Model Name	TAE208
eMMC Standard	eMMC 5.1
Flash Type	3D TLC
Capacity	64 GB / 128 GB
Sequential Read (Up to)	330 MB/s
Sequential Write (Up to)	220 MB/s
Operation Current (Max.)	175 mA
Standby Current (Max.)	120 μ A
Dimensions	11.50 x 13.00 x 1.10 mm
Packaging	FBGA 153 Ball
Operating Temperature	-40°C to +105°C
Storage Temperature	-40°C to +105°C
Endurance	3000 P/E cycles
MTBF	>3,000,000 hours
Certifications	RoHS, REACH, AEC-Q100
Warranty	5-Year

Order Information

Capacity	Part Number	Power Loss Protection
64 GB	BWEFMA064GN1KC	Firmware-Based
128 GB	BWEFMA128GN1KC	Firmware-Based

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. As used for storage capacity, one megabyte (MB) = one million bytes, one gigabyte (GB) = one billion bytes, and one terabyte (TB) = one trillion bytes. Total accessible capacity varies depending on the operating environment. As used for buffer or cache, one megabyte (MB) = 1,048,576 bytes. As used for transfer rate or interface, megabyte per second (MB/s) = one million bytes per second, and gigabyte per second (GB/s) = one billion bytes per second.
6. MTBF = Mean Time Between Failures based on internal testing using the Telcordia stress testing standard.
7. Please visit www.biwin technology.com for warranty details in your region.
8. For more information, please contact sales@biwintech.com.

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