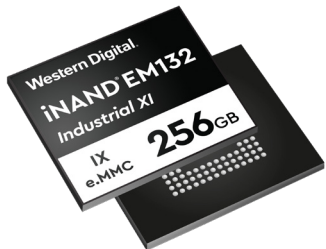


PRODUCT BRIEF



Western Digital® iNAND® IX EM132 Industrial Embedded Flash Devices

Proven Reliability and Endurance for Embedded Platforms

The Industrial iNAND IX EM132¹ Embedded Flash Drive (EFD) is Western Digital's most advanced e.MMC flash storage solution for industrial applications, with high reliability and endurance across a wide range of operational requirements.

Designed and tested to withstand demanding environmental conditions, this industrial-grade flash device features advanced flash memory management firmware to provide enhanced power immunity, ECC, wear leveling, and bad block management. Data intensive applications can rely on the EM132 to capture every critical moment, log each event, and to ensure quality-of-service to end-users.

The Smart Partitioning feature in the iNAND IX EM132 EFD Industrial flash devices allows Boot partitions, RPMB, multiple General-Purpose Partitions, User Data Area and Enhanced User Data Area, providing OEMs the flexibility to choose different attributes on a single device depending on storage requirements.

In Addition, the optimized 3D NAND memory offers significant advantages over that of standard X2 MLC memory in the previous EM122 EFD generation.

Key Features and Benefits

Product Highlights

- Operating Temperature Range: -40°C to 85°C (32GB-256GB) on Industrial Extended-Temperature SKUs; -25°C to 85°C (16GB-256GB) on Industrial SKUs
- Broad Portfolio: 16GB to 256GB
- Extended product life cycle for industrial grade
- Advanced controller built for endurance and reliability
- High Endurance: Up to 3K P/E cycles in TLC
- Smart Partitioning, Advanced Health Report and Manual Refresh (Industrial Grade)
- Enhanced User Data Area (EUDA) (Commercial Grade)
- Operating voltage: 2.7V to 3.6V

Business Benefits

- Drives faster time to market with quick system integration
- Enables real-time analytics at the edge
- Enables cloud augmentation, reduces network traffic
- Improves connected user experience
- Provides reliable local storage, as primary or backup
- Optimizes system performance
- Improves cost per MB over 2D memory

Serving Industrial Applications

- Industrial boards and PCs
- Factory automation
- Smart meters and utilities
- Smart buildings and homes
- IoT gateways
- Surveillances
- Drones
- SOM
- Transportation
- Networking
- Medical

¹ Formerly known as iNAND 7550L.

iNAND IX EM132¹ EFD Industrial Product Features and Specifications

Capacity ²	16GB	32GB	64GB	128GB	256GB
Interface	eMMC 5.1 HS400	eMMC 5.1 HS400	eMMC 5.1 HS400	eMMC 5.1 HS400	eMMC 5.1 HS400
Form Factor (mm)	11.5mm x 13mm x 1.0mm	11.5mm x 13mm x 1.0mm	11.5mm x 13mm x 1.0mm	11.5mm x 13mm x 1.0mm	11.5mm x 13mm x 1.2mm
NAND Flash Technology	3D NAND BiCS3 64L	3D NAND BiCS3 64L	3D NAND BiCS3 64L	3D NAND BiCS3 64L	3D NAND BiCS3 64L
Operating Voltage					
Core Voltage (VCC):	2.7–3.6V	2.7–3.6V	2.7–3.6V	2.7–3.6V	2.7–3.6V
I/O (VCCQ) Voltage	1.7–1.95V or 2.7–3.6V	1.7–1.95V or 2.7–3.6V	1.7–1.95V or 2.7–3.6V	1.7–1.95V or 2.7–3.6V	1.7–1.95V or 2.7–3.6V
Operating Temperature					
Industrial Wide Temperature	–25°C to 85°C	–25°C to 85°C	–25°C to 85°C	–25°C to 85°C	–25°C to 85°C
Industrial Extended Temperature		–40°C to 85°C	–40°C to 85°C	–40°C to 85°C	–40°C to 85°C
Performance					
Sequential Read/Write (MB/s)	Up to 310/150	Up to 310/150	Up to 310/150	Up to 310/150	Up to 310/150
Random Read/Write (IOPS)	Up to 20K/12.5K	Up to 20K/12.5K	Up to 20K/12.5K	Up to 20K/12.5K	Up to 20K/12.5K
Write Endurance					
Total Terabytes Written (TBW)	Up to 693TB	Up to 693TB	Up to 693TB	Up to 693TB	Up to 693TB
Ordering Information					
Commercial Grade	SDINBDA6–16G	SDINBDA6–32G	SDINBDA6–64G	SDINBDA6–128G	SDINBDA6–256G
Industrial Wide Temperature	SDINBDA6–16G-I	SDINBDA6–32G-I	SDINBDA6–64G-I	SDINBDA6–128G-I	SDINBDA6–256G-I
Industrial Extended Temperature		SDINBDA6–32G-XI	SDINBDA6–64G-XI	SDINBDA6–128G-XI	SDINBDA6–256G-XI

1 Formerly known as iNAND 7550L.
 2 1 GB = 1,000,000,000 bytes. Actual user capacity less.

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