PRODUCT BRIEF

iNAND® EM141 e.MMC 5.1 Embedded Flash Drive

Optimized for a Wide Range of Applications Across Processor Architectures and Operating Systems

The Western Digital iNAND EM141 Embedded Flash Device (EFD) is the new generation 3D NAND e.MMC flash storage solution designed for applications that require high performance, reliable data storage, a small form factor, and efficient power consumption. With this product, Western Digital is expanding the lineup of its proven e.MMC product portfolio.

Combining the e.MMC interface and the 4th generation SmartSLC architecture, the iNAND EM141 EFD provides application-optimized performance and reliability to ensure a seamless transition with better supply continuity. It offers a great user experience for launching and running applications on various OS platforms, as well as downloading and capturing high-resolution videos. The product has been enhanced with features that improve data integrity and diagnostics, during development and out in the field. The iNAND EM141 EFD, with the new NAND technology and trusted design, works best for mid-range mobile devices, thin-and-light entry-level compute devices, and a wide range of emerging applications. The new lineup has two variants for mobile (MC) and PC OEMs. It includes densities of 32GB, 64GB, 128GB and 256GB.

Key Benefits

- 96-layer 3D NAND technology
- Supply stability and continuity
- Market-proven hardware and firmware architecture
- Continued commitment to the e.MMC eco-system

Performance

- Up to 300MB/s[1] sequential read performance, complying with e.MMC 5.1 HS400
- Up to 260MB/s sequential write performance
- Up to 20K IOPS random read performance using e.MMC Command Queue mechanism (CMDQ)
- Up to 12.5K IOPS random write performance

Design

- Power immunity: 4th generation SmartSLC technology ensures data integrity and backup in case of a power outage
- Enhanced endurance
- Advanced usage diagnostics with better failure analysis
- Encrypted Field Firmware Upgrade (FFU)
- Capacities from 32GB to 256GB[2]

Specifications

Capacity	e.MMC	Package Size	Part Number
32GB	eMMC 5.1	11.5×13×1.0mm	MC: SDINBDV4-32G PC: SDINBDV4-32G-V
64GB	eMMC 5.1	11.5×13×1.0mm	MC: SDINBDV4-64G PC: SDINBDV4-64G-V
128GB	eMMC 5.1	11.5×13×1.0mm	MC: SDINBDV4-128G PC: SDINBDV4-128G-V
256GB	eMMC 5.1	11.5×13×1.0mm	MC: SDINBDV4-256G PC: SDINBDV4-256G-V

[1] 1 MB/s – 1 million bytes per second. Based on internal testing; performance may vary depending upon host devices, usage conditions, drive capacity, and other factors.

[2] One gigabyte (GB) is equal to one billion bytes. Actual user capacity may be less due to operating environment.

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