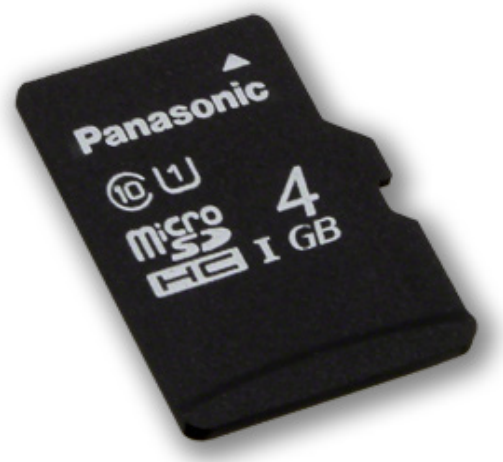
Panasonic

Why Panasonic SD Cards are Highly Reliable



SD Cards are the industry standard for today's removable flash media-based products, including digital cameras, camcorders, music players, smart phones, home theater components, and emerging wearable and Internet of Things (IoT) devices.

Rising media consumption, an explosion of personal data, and the growth of IoT are spurring demand for SD memory cards. Meanwhile, manufacturers are looking for highly reliable – yet affordable – SD storage media for their products.

What makes Panasonic SD Cards uniquely reliable?

Panasonic offers uniquely designed, robust SD cards that deliver higher reliability by using the latest in flash memory technology, a proprietary controller with on-chip error correction code (ECC), and ingenious firmware algorithms.

- The latest in flash memory technology
- A proprietary controller with on-chip ECC
- Ingenious firmware algorithms

Advanced SD card technology

Panasonic's proprietary SD controller utilizes programmed intelligence to provide bad block management, error correction, data randomizer, effective wear leveling, and data recovery. This advanced technology delivers longer SD card life, no read errors, and minimizes data corruption – all in the pursuit of improving card performance, reliability and longevity.

- Longer card life: static wear leveling eliminates intensive data writing to a specific cell and maximizes card life.
- No read errors: an automatic data refresh algorithm automatically detects and refreshes the bit errors that accumulate when reading data, assuring no read errors.
- Minimal data corruption: power failure robustness minimizes data damage in the event of a sudden power failure.

Rigorous quality standards and extensive testing

Panasonic performs extensive and rigorous in-house quality testing for all SD cards to assure the highest quality and reliability for every chip that leaves the fab. Panasonic is also committed to using a fixed and controlled Bill of Materials (BOM). By offering a fixed BOM, Panasonic pledges that any change to core SD card components – the NAND flash memory, the SD controller IC, and the firmware – requires a product change notification. In addition, many Panasonic SD cards are AEC-Q100 certified, solidifying their rank amongst top competitors.

Panasonic's family of SD cards

Three Panasonic SD Card product lines – industrial, consumer plus, and consumer – offer more than 50 products to handle a diverse range of SD card use cases, including security, video, medical, automotive, and IoT applications.

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Industrial SD Cards

Built for ruggedized solutions, Panasonic's Industrial SD/SDHC memory cards implement built-in industrial NAND flash memory and have twice the physical strength of standard SD card offerings. Both Single Level Cell (SLC) and Multi Level Cell (MLC) SD cards use Panasonic's exclusive SD controller. This provides for greater control over firmware and customization options to meet the most demanding requirements of today's industrial and commercial applications.

Panasonic Industrial SD Cards operate in severe environmental conditions, prevent data corruption due to power failure, and offer high program/erase endurance. Operating temperature of -40°C to +85°C is standard along with an extended 60k write cycle for the highest endurance in an SLC card.

Consumer Plus SD Cards

These MLC/pSLC NAND flash memory cards are designed for high endurance and high capacity applications. Operating temperatures are -40°C to +85°C or -25°C to +85°C.

Consumer SD Cards

TLC NAND flash memory cards with Panasonic's modified controller deliver long lifetime usage and high system performance. The standard operating temperature range is -25°C to +85°C.

Discover higher reliability with Panasonic storage media

Panasonic has uniquely designed, extremely robust SD Cards that offer higher reliability using the latest technology in flash memory. Durable, safe and affordable, Panasonic SD Cards can reliably handle the needs of any use case from security, video and medical to industrial, automotive and IoT applications.