

INDUSTRIAL microSD

Superior endurance and reliability across industrial applications

Kingston's Industrial microSD card is designed and tested to withstand the most demanding environmental factors. With an operating temperature of -40°C to 85°C, it can operate normally even in extreme desert heat and sub-zero conditions. The card utilises industry-leading pSLC mode to provide top transfer speeds of up to 100MB/s[1]. It is rated up to 1920 TBW[2] with 30K P/E cycles and has a built-in feature set specific to endurance, performance and industrial needs. Kingston's Industrial microSD ships with a UHS-I SD adapter and is available in capacities from 8GB-64GB[3].

- **Durable in extreme temperatures**
- **High endurance**
- **UHS-I Speed Class U3, V30, A1**
- **Industrial-grade built-in features**

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FEATURES / BENEFITS

Durable in extreme temperatures — Designed and tested to withstand a temperature range of -40°C to 85°C for use in harsh conditions.

High endurance and reliability — Up to 1920 TBW[2] and rated to endure 30K P/E cycles to meet requirements for a wide range of industrial applications.

UHS-I compliant — Speeds of up to 100MB/s[1] with U3, V30 and A1 support for Android-based applications.

Industrial-grade built-in features — Strong ECC engine, wear levelling, bad block management and an optional health monitoring tool to manage the lifespan of your card[4].

SPECIFICATIONS

Capacities[3]
8GB, 16GB, 32GB, 64GB

Performance[1]
Class 10, UHS-I, U3, V30, A1

Endurance[2]
Up to 1920 TBW
30K P/E cycles

NAND
TLC in pSLC mode

microSDHC card dimensions
11mm x 15mm x 1mm

SD adapter dimensions
24mm x 32mm x 2.1mm

Format
FAT32 for SDHC and ExFAT for SDXC

Operating & storage temperature
-40°C to 85°C

Voltage
3.3V

Industrial features
- Bad block management
- Strong ECC engine
- Power failure protection
- Wear levelling
- Auto-refresh read distribution protection
- Dynamic data refresh
- SiP – System in Package
- Garbage collection
- Health monitoring

Thermal cycle testing
Interval testing completed at various extreme temperatures

Vigorous temperature humidity bias
Several hundred hours of testing to ensure durability at varying levels of humidity

Wide temp chamber testing
Completed on all SDCIT2 cards prior to production

Warranty[4]
3 years



KINGSTON PART NUMBERS

Card (SD adapter included)	Card (SD adapter not included)
SDCIT2/8GB	SDCIT2/8GBSP
SDCIT2/16GB	SDCIT2/16GBSP
SDCIT2/32GB	SDCIT2/32GBSP
SDCIT2/64GB	SDCIT2/64GBSP

Waterproof[5]

Temperature proof[6]

Shock and vibration proof[7]

Protected from airport x-rays[8]

1. Speed may vary due to host and device configuration.
2. Terabytes Written (TBW) is derived from the endurance under the highest capacity and is based on internal metrics that quantify how much data can be written to a card in its lifespan.
3. Some of the listed capacity on a Flash storage device is used for formatting and other functions and is thus not available for data storage. As such, the actual available capacity for data storage is less than what is listed on the products. For more information, go to Kingston's Flash Memory Guide.
4. Kingston Flash Cards are designed and tested for compatibility with consumer-grade market products. It is recommended that you contact Kingston directly for any OEM opportunities or special use applications that are beyond standard daily consumer usage. For more information on intended use, please refer to the Flash Memory Guide.
5. IEC/EN 60529 IPX7 certified for protection against continual water submersion for up to 30 min and a depth of up to 1m.
6. Withstands temperature range from -40°C to 85°C.
7. Based on MIL-STD-883H, METHOD 2002.5 military-standard test method.
8. Protected against X-ray exposure based on ISO7816-1 guidelines.

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