



## PRODUCT BRIEF



## Western Digital® Industrial Grade SD™ and microSD™ Cards

Providing Trusted Reliability and Endurance

### Reliable Edge Storage in a Connected World

The convergence of ubiquitous connectivity and compute capability is driving an exponential growth in connected devices and connected sensors, generating incredible volumes of data and enabling vast new types of transformative applications and business models.

In addition to capturing this data locally as primary or backup storage, edge storage devices such as Western Digital Industrial Cards will maximize network efficiency and enable systems to analyze the data and act on the results in real-time.

Leveraging more than 28 years of expertise in NAND flash memory and storage systems, Western Digital Industrial Grade SD and microSD cards deliver edge storage solutions for industrial applications requiring high reliability, durability, and high intensity recording, across a wide range of operational requirements.

Designed and tested to withstand the most demanding conditions, and featuring an advanced memory management FW which includes power immunity, auto/manual read refresh, ECC, and wear leveling, data intensive applications can rely on Western Digital Industrial products to capture every critical moment, log each event, and to ensure quality of service to end users.

These high endurance solutions offer extended product life cycles which can reduce total cost of ownership (TCO) per system by eliminating costly redesigns and requalifications, and minimizing unnecessary maintenance calls.

### Product Highlights

- Operating Temp Range: -25°C to 85°C and -40°C to 85°C
- Extreme high endurance: Up to 1920 TBW
- Broad portfolio: 8GB to 128GB
- Extended product life cycle
- Advanced memory management FW features power immunity, auto/manual read refresh, ECC, wear leveling
- Advanced features to enhance reliability and utility, including health status meter, programmable ID, Host lock (card ownership lock), secure FFU, Dynamic Bit Flip Protection
- Durable design: water proof, shock and vibration proof, X-ray proof, magnet proof, impact proof
- Operating voltage: 2.7V to 3.6V

### Business Benefits

- Delivers lower system TCO
- Enables real-time analytics at the edge
- Reduces network traffic
- Provides reliable local backup
- Maximize system availability with health status meter, ensuring timely preventative maintenance

### Serving Industrial Applications

- Surveillance
- Transportation
- Industrial PC
- Factory Automation
- Networking
- Medical and Agriculture

## Western Digital Industrial Card Products<sup>4</sup>

Product Name	Industrial Ext Temp IX LD332 SD Card	Industrial Wide Temp IX LD332 SD Card	Industrial Ext Temp IX QD332 microSD Card	Industrial Wide Temp IX QD332 microSD Card	Industrial Ext Temp IX QD334 microSD Card
Capacity <sup>1</sup>	8GB – 64GB	8GB – 64GB	8GB – 128GB	8GB – 128GB	8GB – 64GB
Interface	SD 5.1 UHS-I 104	SD 5.1 UHS-I 104	SD 5.1 UHS-I 104	SD 5.1 UHS-I 104	SD 5.1 UHS-I 104
NAND Flash Technology	MLC	MLC	MLC	MLC	SLC
Operating Temp	-40°C to 85°C	-25°C to 85°C	-40°C to 85°C	-25°C to 85°C	-40°C to 85°C
Performance <sup>2</sup>	Speed Class 10 U1	Speed Class 10 U1	Speed Class 10 U1	Speed Class 10 U1	Speed Class 10 U3
Sequential R/W <sup>2</sup>	80/50 MB/s	80/50 MB/s	80/50 MB/s	80/50 MB/s	Up to 90/50 MB/s
Endurance <sup>3</sup>	Up to 192 TBW	Up to 192 TBW	Up to 384 TBW	Up to 384 TBW	Up to 1920 TBW

## Ordering Information

Product Name	Industrial Ext Temp IX LD332 SD Card	Industrial Wide Temp IX LD332 SD Card	Industrial Ext Temp IX QD332 microSD Card	Industrial Wide Temp IX QD332 microSD Card	Industrial Ext Temp IX QD334 microSD Card
Capacity					
8GB	SDSDAF3-008G-XI	SDSDAF3-008G-I	SDSDQAF3-008G-XI	SDSDQAF3-008G-I	SDSDQED-008G-XI
16GB	SDSDAF3-016G-XI	SDSDAF3-016G-I	SDSDQAF3-016G-XI	SDSDQAF3-016G-I	SDSDQED-016G-XI
32GB	SDSDAF3-032G-XI	SDSDAF3-032G-I	SDSDQAF3-032G-XI	SDSDQAF3-032G-I	SDSDQED-032G-XI
64GB	SDSDAF3-064G-XI	SDSDAF3-064G-I	SDSDQAF3-064G-XI	SDSDQAF3-064G-I	SDSDQED-064G-XI
128GB	—	—	SDSDQAF3-128G-XI	SDSDQAF3-128G-I	—

<sup>1</sup> 1GB=1,000,000,000 bytes. Actual user storage less.

<sup>2</sup> Based on internal testing; performance may be lower depending on host device, usage and other factors. 1MB=1,000,000 bytes.

<sup>3</sup> Approximations based on Western Digital internal metrics that quantifies how much data can be written to a card in its lifespan expressed in Terabytes Written (TBW), with write application of 1.

<sup>4</sup> Product specifications subject to change without notice. Pictures shown may vary from actual products. Not all products are available in all regions of the world.

### Contact Information

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