



MLC/ Industrial 3D microSD

Product Highlights

- Compliant with SD 3.0
- Supports SD and SPI Modes
- Capacities in 4GB – 128GB
- Two Operating Temperature Ranges
 - Utility: -25 to 85°C
 - Utility+: -40 to 85°C
- Read / Write Speeds up to 90 / 80MB/s*

**Capacity Dependent*

With many light industrial, medical and handheld designs requiring a cost effective industrial-grade microSD, Delkin's Utility line is the ideal storage solution. Utility microSD cards are offered in 4GB to 128GB, built with a controlled BOM and managed life cycle to deliver consistent performance and no surprises. The Utility line is compliant with the SD 3.0 standard for read / write speeds up to 95 / 90 MB/s and built to industrial standards. Utility microSD cards are rated for -25 to 85°C operation and are mechanically rugged, to withstand a range of environmental conditions. Utility+ microSD cards are rated for full industrial temperature operation, from -40 to +85°C.

Delkin Utility & Utility+ microSD Part Numbers

Capacity	Utility Series	Utility+ Series
4GB	S404GSEMC-U3000-3	S304GSEMC-U3000-3
8GB	S408GSEMB-U1000-3	S308APGE9-U1000-3
16GB	S416GSEMB-U3000-3	S316APGE9-U3000-3
32GB	S432VSKLB-U1000-3	S332FQYFA-U1000-3
64GB	S464FQYFA-U1000-3	S364FQYFA-U1000-3
128GB	S41HFQYFA-U1000-3	S31HFQYFA-U1000-3

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Technical Specifications

Environment

Operating Temp

Utility microSD -25 to +85°C

Utility+ microSD -40 to +85°C

Storage Temp

-40 to +85°C

Shock¹

1500G, 0.5msec duration

Vibration²

7.7GRMS

20 – 80Hz / 1.52mm displacement

80Hz – 2000Hz, 20G acceleration

Reliability / Endurance

TBW³

SLC: N/A

MLC: 12 TBW

MTBF

> 3 million hours (0 to +25°C)

> 200,000 hours (60°C)

Capacity Range

SLC

N/A

MLC/ Industrial 3D

uSD: 4GB – 128GB

Performance⁴

SLC

N/A

MLC/ Industrial 3D

Sequential Read up to 90MB/s*

Sequential Write up to 80MB/s*

*UHS-1 Mode

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¹Per MIL-STD-810G, Method 516.6 Procedure I. Testing to other shock profiles available upon request.

²Per MIL-STD-810G, Method 514.6; Category 24. Testing to other vibration curves available upon request.

³TBW figures are representative for 4GB capacity based on optimal usage model. Contact Delkin for life estimates on other capacities or using your specific usage parameters.

⁴Performance figures shown are for highest capacity configuration, and will vary by capacity, host, usage model and other factors.

Features

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Note: Requests for samples are considered on a case-by-case basis and are available for B2B Industrial customers only.

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