

Datasheet

# M.2 (S80) 3TE7 series

- M.2 SATA III solution for industrial field
- Exclusive L<sup>3</sup> architecture
- DRAM-less, 100% data integrity
- Excellent random performance
- Supports TRIM/NCQ/SMART
- Built in iData Guard
- Compatible with M.2 2280-D2-B-M standard
- Designed with hardware LDPC ECC engine



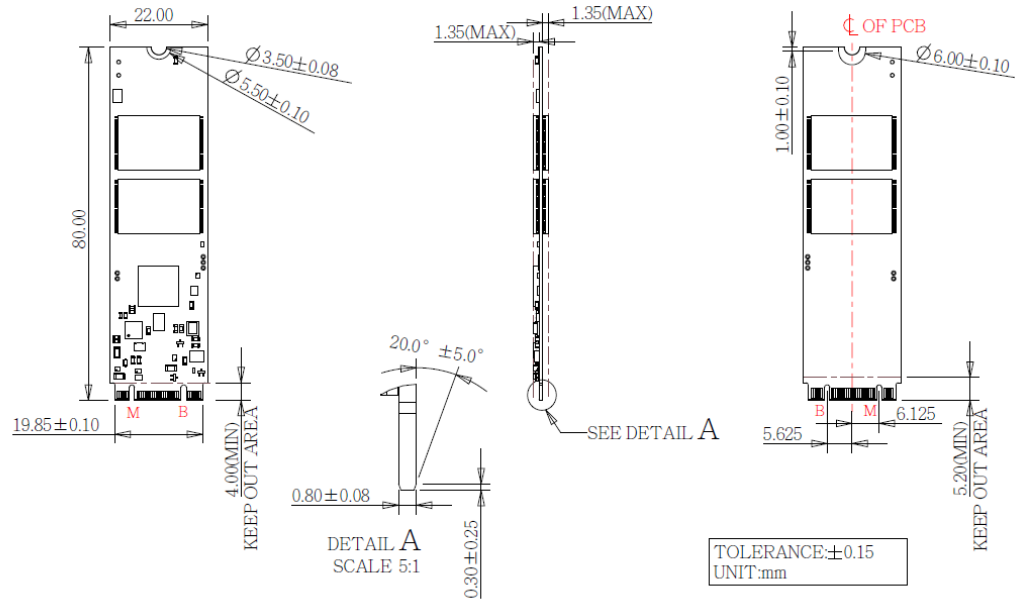
## Introduction

Innodisk M.2 (S80) 3TE7 SATA III Solid State Drive adopts latest SATA III NAND controller with Innodisk's exclusive L<sup>3</sup> FW architecture which incorporates powerful LDPC technology into Innodisk signature 4K mapping L<sup>2</sup> FW architecture. 3TE7 series have outstanding high IOPS, better data integrity and extended lifespan through implementation of Die-Raid protection. Built-in thermal sensor and iData Guard also ensure data integrity and reliability of 3TE7 for industrial applications.

Innodisk M.2 (S80) 3TE7 is designed for industrial field and supports several advanced features including TRIM, NCQ, and S.M.A.R.T. In addition, Innodisk's exclusive industrial-oriented firmware provides flexible customization service, making 3TE7 a perfect option for a variety of industrial applications.

# M.2 (S80) 3TE7 series

## Diagram



Contact us for more information about the M.2 (S80) 3TE7.

Innodisk is a service-driven provider of industrial embedded flash and DRAM storage products and technologies, with a focus on the cloud computing, industrial/embedded, and aerospace and defense industries.

### Headquarters (Taiwan)

5F., No. 237, Sec. 1, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan  
Tel: +886-2-7703-3000  
Email: sales@innodisk.com

### Branch Offices:

USA  
[usasales@innodisk.com](mailto:usasales@innodisk.com)  
+1-510-770-9421

Europe  
[eusales@innodisk.com](mailto:eusales@innodisk.com)  
+31-40-3045-400

Japan  
[jpsales@innodisk.com](mailto:jpsales@innodisk.com)  
+81-3-6667-0161

China  
[sales\\_cn@innodisk.com](mailto:sales_cn@innodisk.com)  
+86-755-21673689  
[www.innodisk.com](http://www.innodisk.com)

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## Specifications

Interface	SATA III
Flash Type	3D TLC
P/E cycle	3,000
Capacity	64GB~2TB
Max. Channels	4
Sequential R/W (MB/sec, max.)	560/520
RMS. Power Consumption	1.65W (0.5mA x 3.3V)
Thermal Sensor	✓
External DRAM buffer	-
H/W Write Protect	Optional
ATA Security	✓
S.M.A.R.T.	✓
Dimension (WxLxH)	22.0 X 42.0 X 3.5 mm
Environment	Vibration: 20G @7~2000Hz Shock: 1500G @ 0.5ms Storage Temperature: -55°C ~ +95°C MTBF: 3 million hours

## Ordering Information

Operation Temp.	64GB	128GB	256GB	512GB	1TB	2TB
Standard Grade (0°C ~ +70°C)	DEM28-64GDK1GC1SL	DEM28-A28DK1GC*DL	DEM28-B56DK1GC*QL	DEM28-C12DK1GC*QL	DEM28-01TDK1GCAQL	DEM28-02TDK1GCAQQ
Industrial Grade (-40°C ~ +85°C)	DEM28-64GDK1GW1SL	DEM28-A28DK1GW1DL	DEM28-B56DK1GW1QL	DEM28-C12DK1GW1QL	DEM28-01TDK1GWAQL	DEM28-02TDK1GWAQQ

\*. PCB version

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## Introduction

Innodisk M.2 (S80) 3TE7 is SATA III 6.0 Gb/s flash based disk, which adopts latest SATA III NAND controller with Innodisk's exclusive L<sup>3</sup> FW architecture. The upgraded L<sup>3</sup> FW architecture, combining Innodisk signature 4K mapping algorithm L<sup>2</sup> FW architecture with powerful LDPC technology, makes 3TE7 series have outstanding high IOPS, better data integrity and extended lifespan through reducing the bad block number happening. Built-in thermal sensor, and iData Guard ensure data integrity and reliability of 3TE7 for industrial applications.

Innodisk M.2 (S80) 3TE7 is designed for industrial field, and supports several standard features, including TRIM, NCQ, and S.M.A.R.T. In addition, Innodisk's exclusive industrial-oriented firmware provides a flexible customization service, making it perfect for a variety of industrial applications.

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## 3TE7 series

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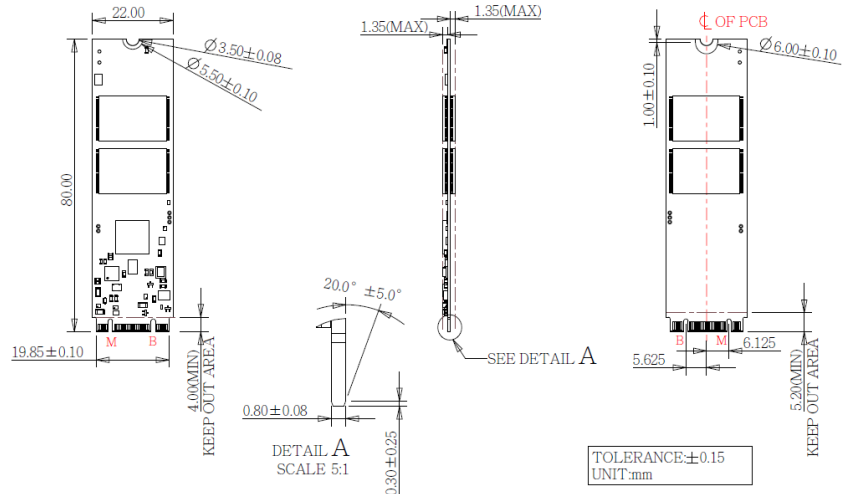
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+1-510-770-9421  
Europe  
[eusales@innodisk.com](mailto:eusales@innodisk.com)  
+31-40-3045-400  
Japan  
[jpsales@innodisk.com](mailto:jpsales@innodisk.com)  
+81-3-6667-0161  
China  
[sales\\_cn@innodisk.com](mailto:sales_cn@innodisk.com)  
+86-755-21673689  
[www.innodisk.com](http://www.innodisk.com)

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### Specifications

Interface	SATA III
Flash Type	3D TLC
P/E cycle	3,000
Capacity	32GB~2TB
Max. Channels	4
Sequential R/W (MB/sec, max.)	550/520
Max. Power Consumption	2.3W(3.3V x696mA)
Thermal Sensor	√
External DRAM buffer	-
H/W Write Protect	Optional
ATA Security	√
S.M.A.R.T.	√
Dimension (WxLxH)	22.0 X 80.0 X 3.5 mm (Max)
Environment	Vibration: 20G @7~2000Hz Shock: 1500G @ 0.5ms Storage Temperature: -40°C ~ +85°C MTBF: 3 million hours

### Ordering Information

Operation Temp.	32GB	64GB	128GB	256GB	512GB	1TB	2TB
Standard Grade (0°C ~ +70°C)	DEM28-32GDK1EC1SF	DEM28-64GDK1EC*DF	DEM28-A28DK1%C*QF	DEM28-B56DK1%C*QF	DEM28-C12DK1%C*QF	DEM28-01TDK1%CAQF	DEM28-02TDK1%CAQF
Industrial Grade (-40°C ~ +85°C)	DEM28-32GDK1EW1SF	DEM28-64GDK1EW*DF	DEM28-A28DK1EW*QF	DEM28-B56DK1EW*QF	DEM28-C12DK1EW*QF	DEM28-01TDK1EWAQF	X

%.E: 64 layers 3D TLC; G: 96 layers 3D TLC; K: 112 layers 3DTLC

\*. PCB version control

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