

Datasheet

# M.2 (S42) 3IE7 series

- 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 2242-D2-B-M standard
- Designed with hardware LDPC ECC engine



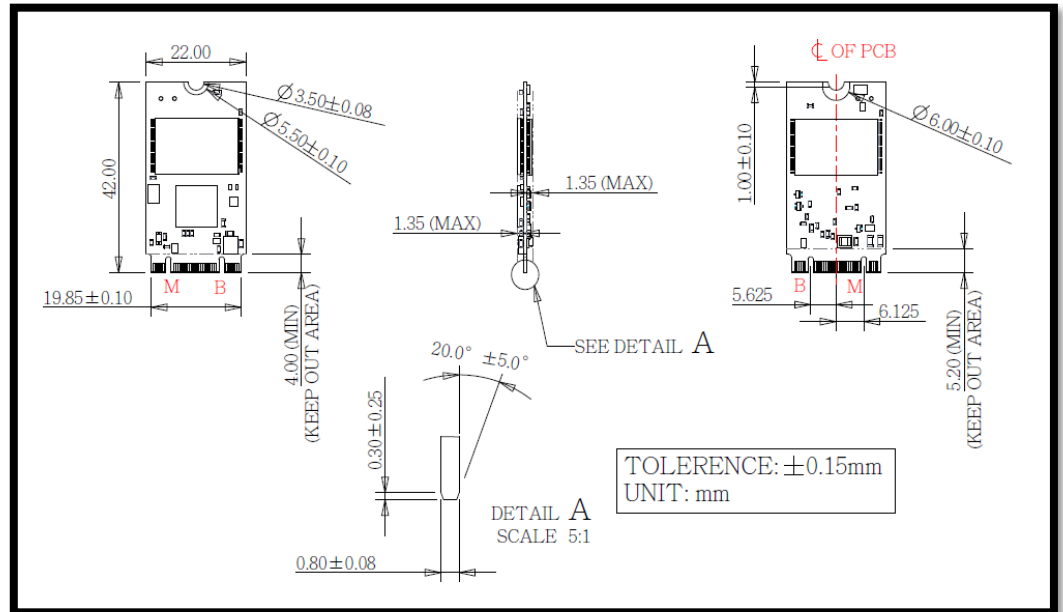
## Introduction

Innodisk M.2 (S42) 3IE7 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 3IE7 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 3IE7 for industrial applications.

Innodisk M.2 (S42) 3IE7 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.

# M.2 (S42) 3IE7 series

## Diagram



Contact us for more information  
about the M.2 (S42) 3IE7.

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)

© 2021 Innodisk Corporation.  
All right reserved. Specifications are  
subject to change without  
prior notice.

20190425

## Specifications

Interface	SATA III
Flash Type	3D TLC
P/E cycle	30,000
Capacity	20GB~160GB
Max. Channels	4
Sequential R/W (MB/sec, max.)	560/530
Max. Power Consumption	2.8W(850mA $\times$ 3.3V)
Thermal Sensor	✓
External DRAM buffer	-
H/W Write Protect	Optional
ATA Security	✓
S.M.A.R.T.	✓
Dimension (W $\times$ L $\times$ H)	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.	20GB	40GB	80GB	160GB
Standard Grade (0°C ~ +70°C)	DHM24-20GDK1EC*DF	DHM24-40GDK1EC*&F	DHM24-80GDK1EC*&F	DHM24-A60DK1ECAQF
Industrial Grade (-40°C ~ +85°C)	DHM24-20GDK1EW*DF	DHM24-40GDK1EW*&F	DHM24-80GDK1EW*&F	DHM24-A60DK1EWAQF

\*, PCB version control

&. D=Dual channel; Q=4 channel

**innodisk**

[www.innodisk.com](http://www.innodisk.com)