

Datasheet

# M.2 (S42) 3IE7 series

- SATA III solution for industrial field
- Compatible with M.2 2242-D2-B-M standard
- DRAM-less, 100% data integrity
- Support iSLC/Ultra iSLC technology
- Supports TRIM/NCQ/SMART
- Built in iData Guard
- 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

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)

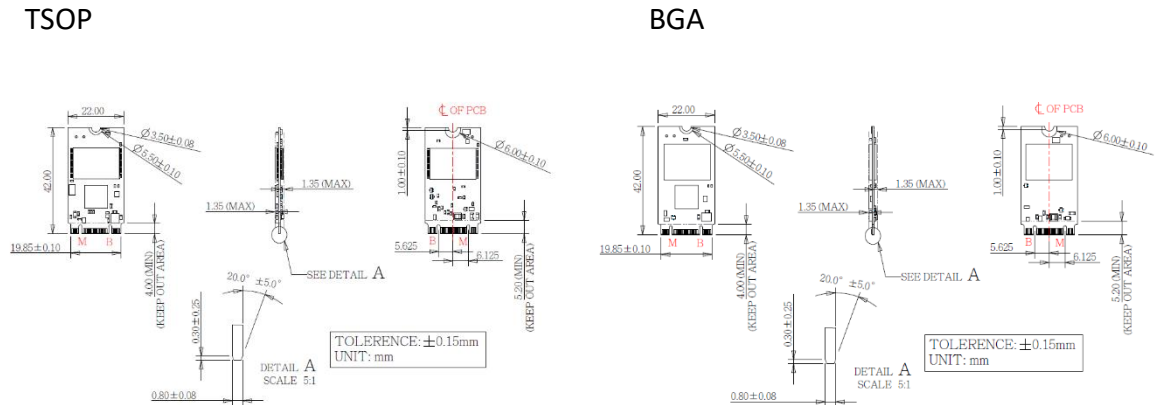
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## Diagram



## Specifications

Interface	SATA III
Flash Type	iSLC (3D TLC)
Capacity	20GB~320GB
Max. Channels	4
Sequential R/W (MB/sec, max.)	560/530
Max. Power Consumption	2.8W
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: -40°C ~ +85°C MTBF: 3 million hours

## Ordering Information

Operation Temp.	20GB	40GB	80GB	160GB	320GB
Standard Grade (0°C ~ +70°C)	DHM24-20GDK1%C*&F	DHM24-40GDK1%C*&F	DHM24-80GDK1%C*&F	DHM24-A60DK1%CAQF	DHM24-D2GDK1KCAQF
Industrial Grade (-40°C ~ +85°C)	DHM24-20GDK1%W*&F	DHM24-40GDK1%W*&F	DHM24-80GDK1%W*&F	DHM24-A60DK1%WAQF	DHM24-D2GDK1KWAQF

%. E: 64 layers 3D TLC / K: 112 layers 3D TLC

\*. PCB version control

&. S: 1 channel; D: 2 channels; Q: 4 channels