Datasheet

mSATA
3IE7 with Innodisk NAND

- SATA III soultion for industrial field
- Exclusive L^3 architecture
- DRAM-less, 100% data integrity
- Excellent random performance
- Supports TRIM/NCQ/SMART
- Built in iData Guard
- Designed with hardware LDPC ECC engine



Introduction

Innodisk mSATA 3IE7 is SATA III 6.0 Gb/s flash based disk, which adopts latest SATA III NAND controller with Innodisk's exclusive L^3 FW architecture. The upgraded L^3 FW architecture, combining Innodik signature 4K mapping algorithm L^2 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.

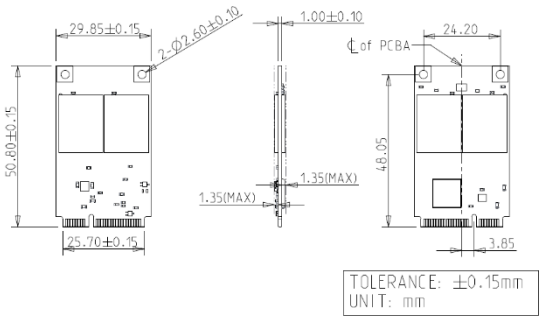
Innodisk mSATA 3IE7 is designed for industrial field, and supports several standard features, including TRIM, NCQ, and S.M.A.R.T. In addition, Innodisk's exclusive industrial-oriented firmware provides a flexible customization service, making it perfect for a variety of industrial applications.

mSATA 3IE7 series

Diagram

Contact us for more information about the mSATA 3IE7.

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



Specifications

Interface	SATA III
Flash Type	iSLC (3D TLC)
Capacity	20GB~640GB
Max. Channels	4
Sequential R/W (MB/sec, max.)*	550 / 520 MB/s
4KB Random (QD32) R/W (IOPS)*	88,000/76,000
Max. Power Consumption	1.9W
Thermal Sensor	√
External DRAM Buffer	-
H/W Write Protect	Optional
ATA Security	√
S.M.A.R.T.	√
Dimension (WxLxH)	29.85 X 50.8 X 3.7 mm
Environment	Vibration: 20G @7~2000Hz Shock: 1500G @ 0.5ms Storage Temperature: -55°C ~ +95°C MTBF: 3 million hours
* Performance based on CystalDiskMark 6.0.2 with file size 1000MB	

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Ordering Information (Please refer to TPS for detail)

Operation Temp.	20GB	40GB	80GB	160GB	320GB	640GB
Standard Grade (0°C ~ +70°C)	DHMSR-20GDK1KCASL	DHMSR-40GDK1KCADL	DHMSR-80GDK1%CA&L	DHMSR-A60DK1%CAQL	DHMSR-D2GDK1%CAQL	DHMSR-F4GDK1GCAQQ
Industrial Grade (-40°C ~ +85°C)	DHMSR-20GDK1KWASL	DHMSR-40GDK1KWADL	DHMSR-80GDK1%WA&L	DHMSR-A60DK1%WAQL	DHMSR-D2GDK1%WAQL	DHMSR-F4GDK1GWAQQ

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

&. D=Dual channel; Q=4 channel