

Datasheet

M.2 (P30)

4IE3 series

- M.2 type 2230 M key
- PCIe Gen4 x4, NVMe 1.4
- Excellent data transfer speed
- Standard/Wide-temperature
- End-to-end Data Path Protection
- 256-bit AES hardware-based encryption
- Support TCG Opal Function (Optional)



Introduction

Innodisk M.2 (P30) 4IE3 is a NVM Express DRAM-less SSD designed with PCIe interface and industrial 3D TLC NAND Flash. M.2 (P30) 4IE3 supports PCIe Gen.4 x4 and it is compliant with NVMe 1.4 providing excellent top and also sustained performance. With sophisticated error detection and correction (ECC) functions, the module can provide full End-to-end Data Path Protection that secures the data transmission between the host system and NAND Flash. It offers an ideal solution for embedded, automotive, medical, gaming and most industrial applications.

Innodisk M.2 (P30) 4IE3 is designed with AES engine, which is a built in controller. When controller receives the data package from host, AES engine encrypts the data package and saves the encrypted data into NAND flash. Thus, unauthorized personal has no access to decrypt the data in NAND flash.

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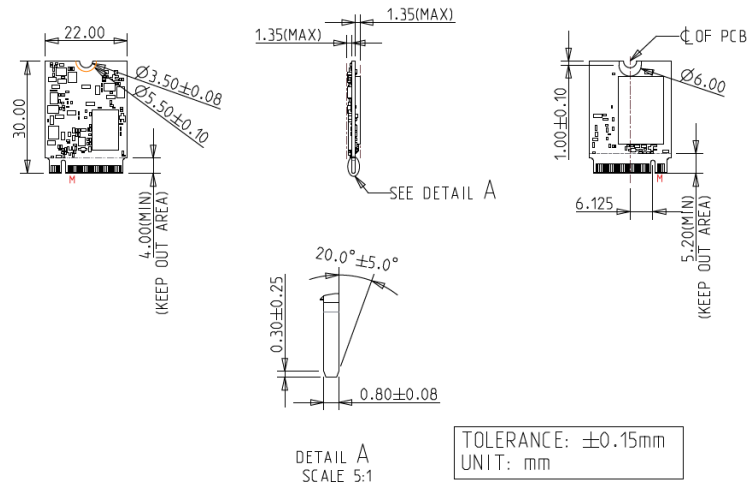
M.2 (P30)

4IE3 series

Contact us for more information
about the M.2 (P30) 4IE3

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.

Diagram (ST)



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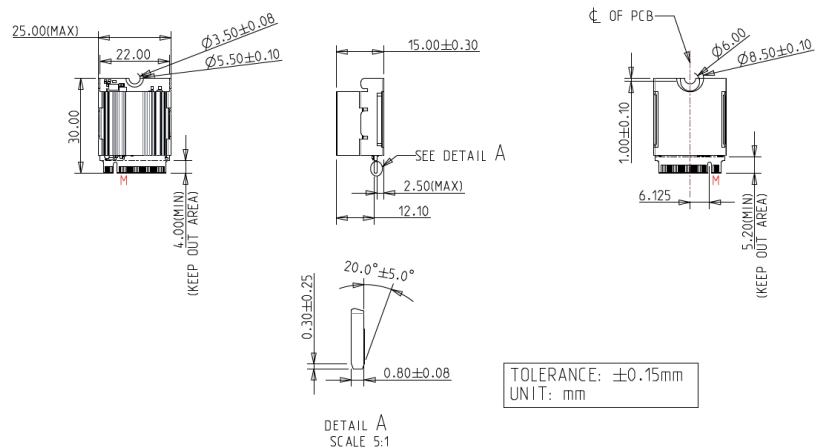
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Diagram (WT)



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Specifications

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20240702

Interface	PCIe Gen4 x4
Flash Type	iSLC (3D TLC)
P/E cycle	100,000
Capacity	40GB~160GB
Max. Channels	2
Sequential R/W (MB/sec, max.)	1,800/1,450
Max. Power Consumption	3.3W
Thermal Sensor	√
External DRAM Buffer	NA
AES	√
TCG Opal	√ (optional)
H/W Write Protect	√ (optional)
ATA Security	√
Dimension (WxLxH)	WT with heatsink: 25.0 X 30.0 X 15.0 mm (Pure M.2: 22.0 X 30.0 X 3.4 mm)
Environment	Vibration: 20G @7~2000Hz Shock: 1500G @ 0.5ms Storage Temperature: -40°C ~ +85°C MTBF: >3,000,000 hour

Ordering Information

Operation Temp.	40GB	80GB	160GB
Standard Grade (0°C ~ +70°C)	DHM23-40GDH1KCBDF	DHM23-80GDH1KCBDF	DHM23-A60DH1KCBDF
Industrial Grade (-40°C ~ +85°C)	DHM23-40GDH1KWBDHF	DHM23-80GDH1KWBDHF	DHM23-A60DH1KWBDHF

For TCG OPAL function, the PN Code 10th~12th will be DH2.



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