

Datasheet

# M.2 (P80) 4TE3 series

- PCIe Gen4 x4, NVMe SSD
- Kioxia 3D TLC NAND
- Standard/Wide-temperature
- iPowerguard
- iDataguard
- Dynamic Thermal Management
- Hybrid Write Mode with SLC Cache Enable
- Support write protection (optional)
- Support AES & TCG OPAL function (optional)



## Introduction

Innodisk M.2 (P80) 4TE3 is a NVM Express DRAM-less SSD designed with PCIe interface and industrial 3D TLC NAND Flash. M.2 (P80) 4TE3 supports PCIe Gen4 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.

Innodisk M.2 (P80) 4TE3 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.

# M.2 (P80) 4TE3 series

Contact us for more information  
about the M.2 (P80) 4TE3.

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.

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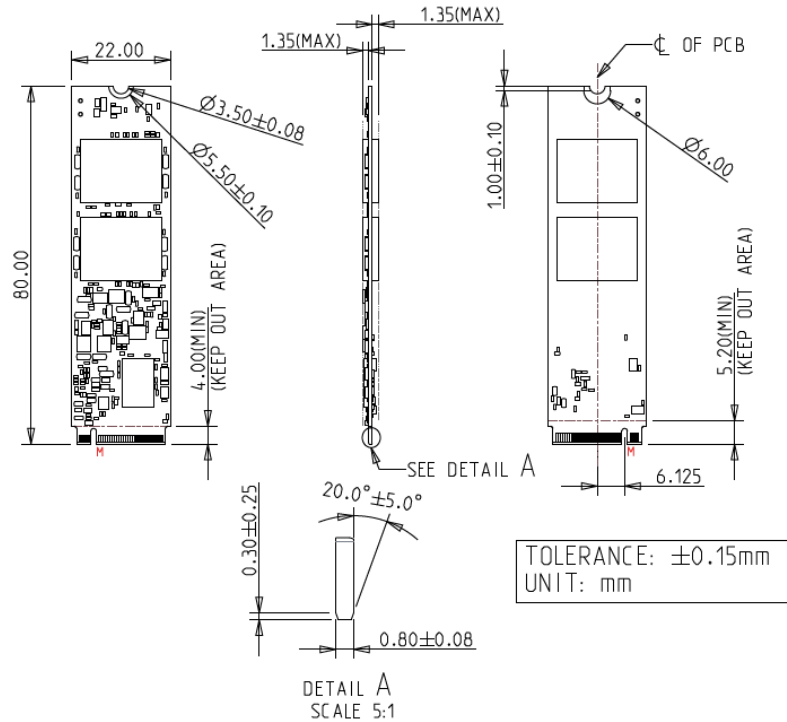
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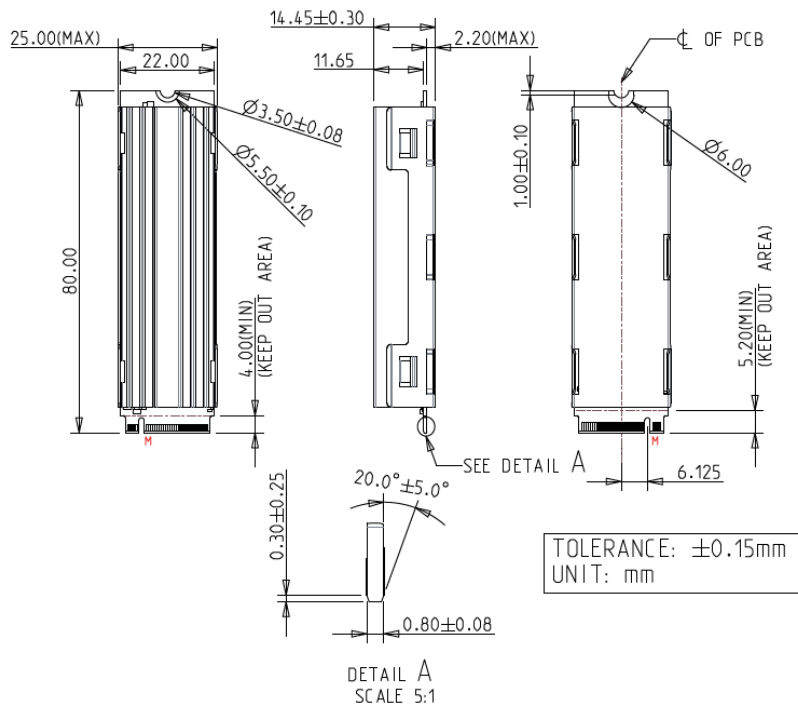
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## Diagram(ST)



## Diagram (WT)



# Specifications

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Interface	PCIe Gen4 x4
Flash Type	3D TLC
P/E cycle	3,000
Capacity	128GB~2TB
Max. Channels	4
Sequential R/W (MB/sec, max.)	3,650/3,200
Max. Power Consumption	4.8W
Thermal Sensor	√
External DRAM buffer	NA
H/W Write Protect	√ (Optional)
AES	√
TCG OPAL	√ (Optional)
Dimension (WxLxH)	WT with heatsink: 25 X 80.0 X 14.45 mm (Pure M.2: 22.0 X 80.0 X 2.87 mm)
Environment	Vibration: 20G @7~2000Hz Shock: 1500G @ 0.5ms Storage Temperature: -40°C ~ +85°C MTBF: 3 million hours

## Ordering Information

Operation Temp.	128GB	256GB	512GB	1TB	2TB
Standard Grade (0°C ~ +70°C)	DEM28-A28DH1KCADF(W)	DEM28-B56DH1KCAQF(W)	DEM28-C12DH1KCAQF(W)	DEM28-01TDH1KCAQF(W)	DEM28-02TDH1KCAQF(W)
Industrial Grade (-40°C ~ +85°C)	DEM28-A28DH1KWADF(W)	DEM28-B56DH1KWAQFH(W)	DEM28-C12DH1KWAQFH(W)	DEM28-01TDH1KWAQFH(W)	DEM28-02TDH1KWAQFH(W)

W: HW Write Protect  
For TCG OPAL function, the PN Code 10<sup>th</sup>~12<sup>nd</sup> will be DH2.

