

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
- 256-bit AES hardware-based encryption
- iCell technology
- Support Write Protection (optional)
- Support 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.

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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.

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
+1-510-770-9421
Europe
eusales@innodisk.com
+31-40-3045-400
Japan
jpsales@innodisk.com
+81-3-6667-0161
China
sales_cn@innodisk.com
+86-755-21673689
www.innodisk.com

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Diagram(ST)

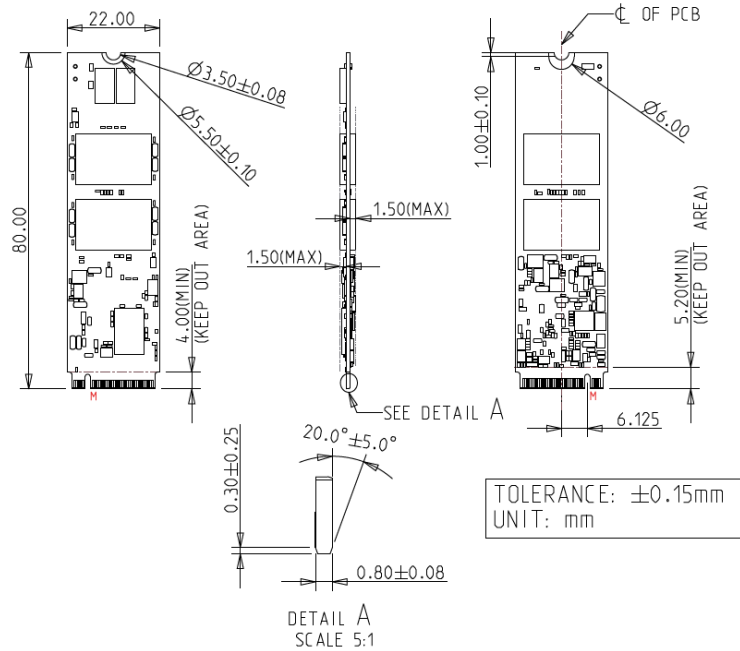
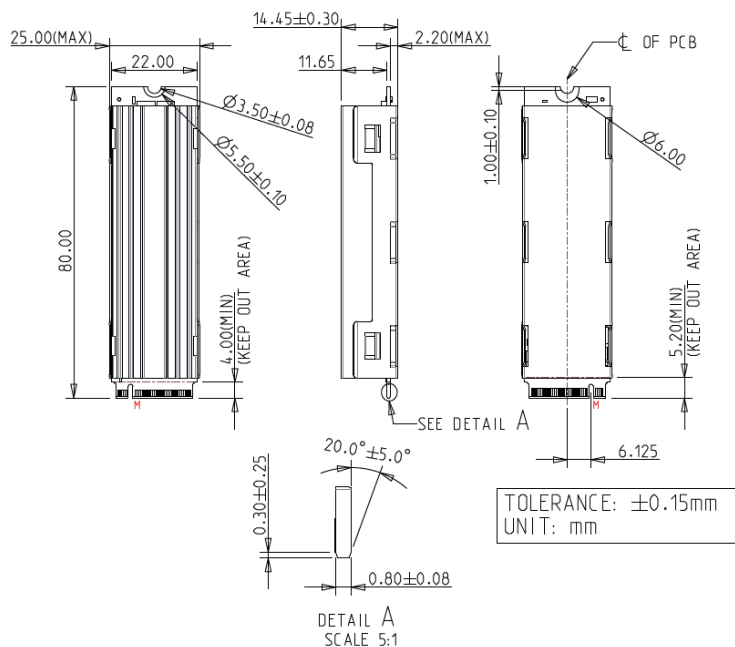


Diagram (WT)



Specifications

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Europe
eusales@innodisk.com
+31-40-3045-400
Japan
jpsales@innodisk.com
+81-3-6667-0161
China
sales_cn@innodisk.com
+86-755-21673689
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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.)	3,700/3,300
Max. Power Consumption	4.6W
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 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.	128GB	256GB	512GB	1TB	2TB
Standard Grade (0°C ~ +70°C)	DEM28-A28DH1KCBDFP(W)	DEM28-B56DH1KCBQFP(W)	DEM28-C12DH1KCBQFP(W)	DEM28-01TDH1KCBQFP(W)	DEM28-02TDH1KCBQFP(W)
Industrial Grade (-40°C ~ +85°C)	DEM28-A28DH1KWBDFP(W)H	DEM28-B56DH1KWBQFP(W)H	DEM28-C12DH1KWBQFP(W)H	DEM28-01TDH1KWBQFP(W)H	DEM28-02TDH1KWBQFP(W)H

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