

# Apacer

The Most **Reliable**  
Storage For Industries

**SDM5A 22P90D**



## SDM5A 22P90D

### Overview

The SDM5A-M SATA DOM (SATA disk of module) series is available with a 22-pin connector that is oriented at 90 degrees or 180 degrees and is designed for a adopted in industrial, embedded, and commercial computers. Supporting SATA 6.0 Gb/s and read and write speeds up to 200 MB/s and 85MB/s respectively, the SDM5A-M DOM offers outstanding reliability based on flash vendor guaranteed wide-temp MLC chip in capacities of 8GB to 64GB and also can work at extended temperatures (-40°C~ 85°C) under harsh operating environment, particularly well-suited for applications such as POS, kiosk, gaming, digital signage, STB, low-cost NB surveillance systems and Thin client. The actual available memory on the device is less than what is listed on the package. This is due to small discrepancies in file formats and algorithms used by various operating systems. In addition, a portion of memory space is reserved for system files and data sectors for better performance.



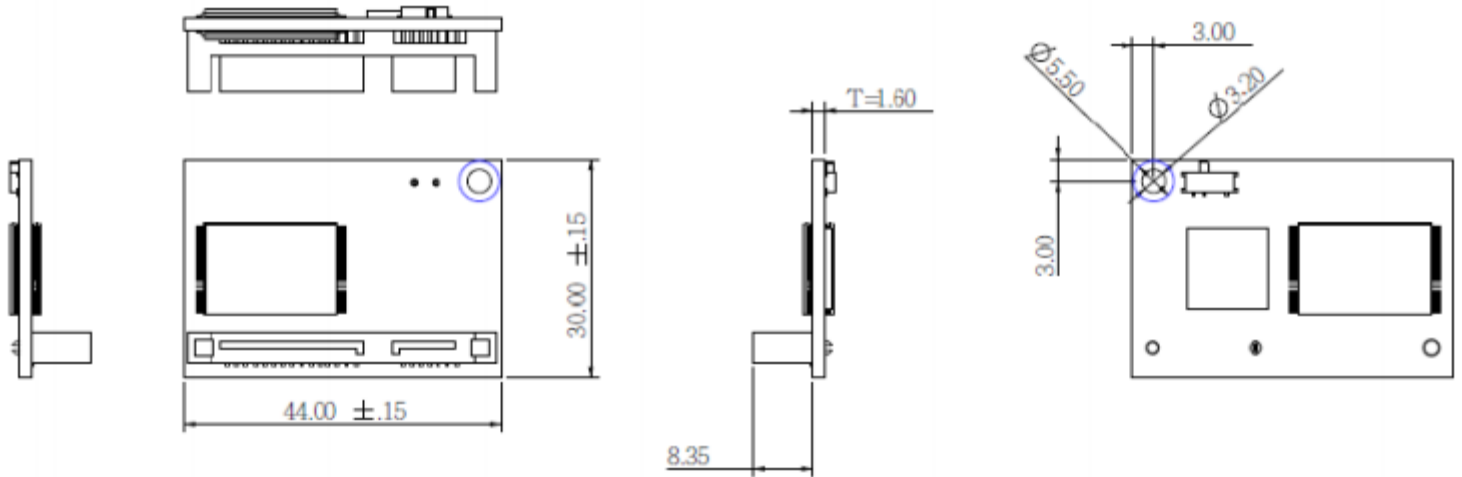
### Feature

- 22-pin SATA Standard Connector
- Global Wear-leveling and Block Management
- Built in ATA Secure Erase and S.M.A.R.T. Function
- Intelligent Power Failure Recovery
- TRIM Command Support
- MLC Extended Temperature Support

## Specifications

<b>Model</b>	SDM5A-M 22P/90D
<b>Interface</b>	SATA 3.0 (6Gb/s)
<b>Connector</b>	(7+15) pin male
<b>NAND Flash Type</b>	SLC
<b>Capacity</b>	1GB~32GB
<b>External DRAM</b>	No
<b>Sustained Read Performance (MB/sec)</b>	Up to 90
<b>Sustained Write Performance (MB/sec)</b>	Up to 75
<b>ECC Engine</b>	Built-in up to 72-bit per 1K bytes BCH ECC
<b>IOPS (4K Random Write)</b>	40K
<b>Standard Operating Temperature ( °C )</b>	0 ~ + 70
<b>Extended Operating Temperature ( °C )</b>	-40 ~ + 85
<b>Storage Temperature ( °C )</b>	-40 ~ + 100
<b>Thermal Sensor</b>	Optional
<b>Shock</b>	Operation: 50G, 11ms Non-operation: 1500G, 0.5ms
<b>Vibration</b>	Operation: 7.69 Grms, 20~2000 Hz/random (compliant with MIL-STD-810G) Non-operation: 4.02 Grms, 15 ~ 2000 Hz/sine (compliant with MIL-STD-810G)
<b>Operating Voltage</b>	5.0 V ± 5%
<b>Power Consumption</b>	Active mode: 260 mA & Idle mode: 70 mA
<b>Dimension (L x W x H )</b>	44 x 30 x 11 (mm)
<b>MTBF (hours)</b>	>2,000,000

## Mechanical Specification



Unit: mm

## Ordering Info

Operation Temp.	1GB	2GB	4GB
Standard Grade	APSDM001G12AN-CT	APSDM002G12AN-CT	APSDM004G12AN-CT
Industrial Grade	APSDM001G12AN-CTW	APSDM002G12AN-CTW	APSDM004G12AN-CTW

Operation Temp.	8GB	16GB	32GB
Standard Grade	APSDM008G12AN-CT	APSDM016G12AN-CT	APSDM032G12AN-CT
Industrial Grade	APSDM008G12AN-CTW	APSDM016G12AN-CTW	APSDM032G12AN-CTW

For more information,  
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