

2-EXTERNAL M.2 SSDs WITH NVME TECHNOLOGY

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SUMMARY

During the fall of 2023, external SSDs with NVME technology finally became available at retail. Up until that time, I had to build them from a stack of separately purchased parts.

TOPICS

- External SSDs with NVME technology instead of the old, obsolete SATA technology are finally available

NVME and SATA

- NVME = "Non-volatile Memory Express"
- SATA = "Serial Advanced Technology Attachment"

ADVANTAGES OF NVME TECHNOLOGY IN SSDs

- Smaller form factor
- 4 to 12 times faster relative to SATA SSDs

LOOK FOR "NVME"

- If the manufacturer's or retailer's description for an external SSD does not say
NVME
then you can assume that it is a SATA SSD
- In any Web browser page that describes an SSD, press Ctrl + F and search for
NVME

SANDISK NVME SSD

- <https://www.amazon.com/SanDisk-2TB-Extreme-Portable-SDSSDE61-2T00-G25/dp/B08HN37XC1/>

CRUCIAL X9 SSD MAY NOT BE NVME

- https://www.amazon.com/Crucial-1TB-Portable-SSD-CT1000X9SSD902/dp/B0CGW1FQV4/ref=sr_1_6?crid=2RARICD3K7K9K&keywords=external%2BSSD&qid=1705199374&sprefix=external%2Bssd%2Caps%2C125&sr=8-6&th=1
- Uses Silicon Motion's SM2320 controller per <https://www.tweaktown.com/reviews/10602/crucial-x9-pro-2tb-portable-ssd->

CRUCIAL X9 SSD MAY NOT BE NVME (continued)

- Uses Silicon Motion's SM2320 controller per <https://www.tweaktown.com/reviews/10602/crucial-x9-pro-2tb-portable-ssd-sleek-powerful-and-compatible/index.html>

SAMSUNG T7 SSD

- https://www.amazon.com/SAMSUNG-Resistant-Photographers-MU-PE4T0S-AM/dp/B0BHZQGN26/ref=sr_1_8?crid=2RARICD3K7K9K&keywords=external%2BSSD&qid=1705199374&sprefix=external%2Bssd%2Caps%2C125&sr=8-8&th=1

POTENTIAL EXTERNAL SSD PROBLEMS

- None of the external SSDs that are currently available have fans inside them
- To end up with an external SSD with a fan inside it, you have to buy an external M.2 SSD enclosure that has a fan inside it AND an M.2 NVME SSD and then insert the M.2 NVME SSD into the external SSD enclosure