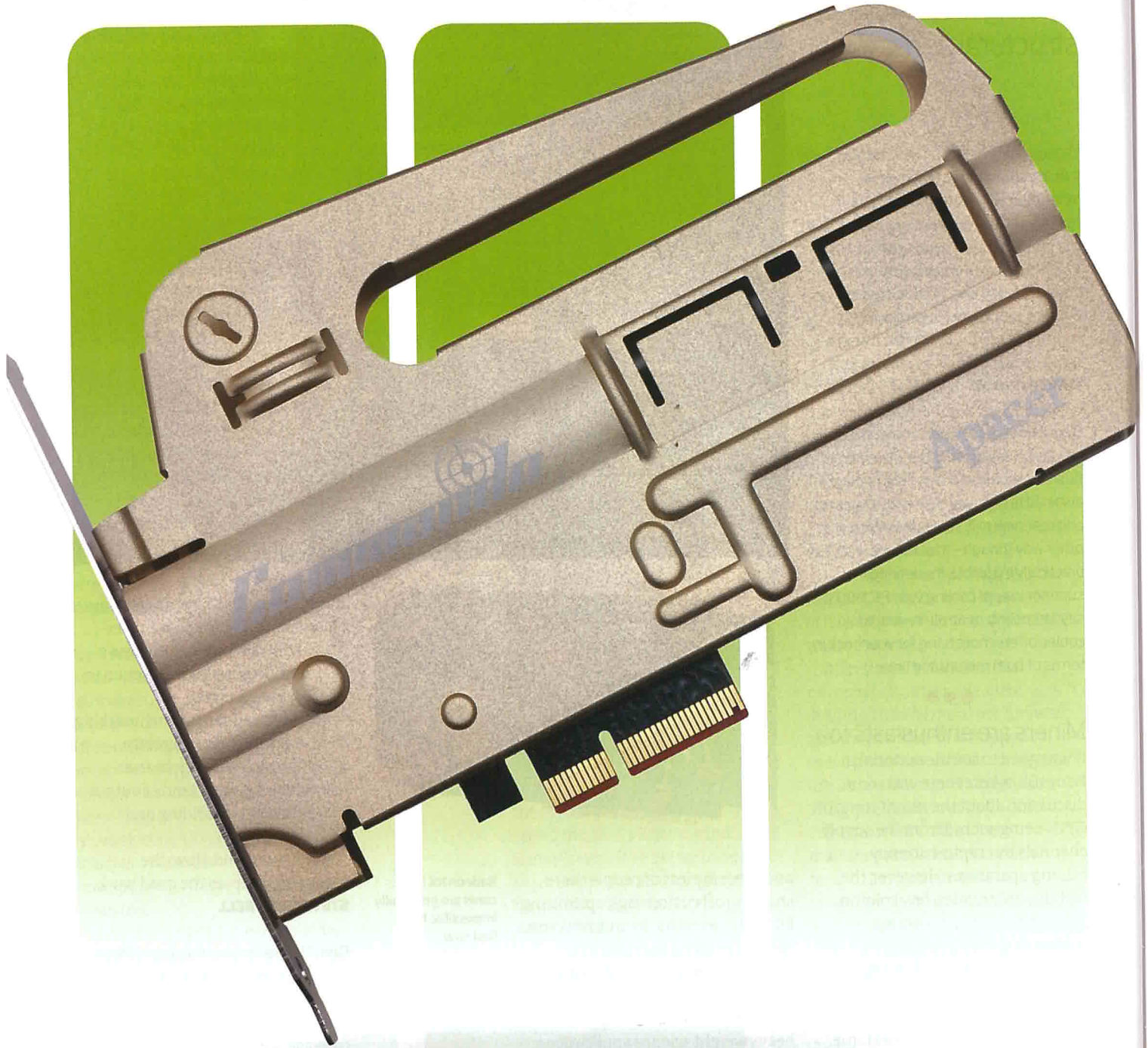


Reviews

Our in-depth analysis of the latest PC hardware



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SOLID STATE DRIVE

Apacer PT920 Commando / £155 inc VAT

SUPPLIER www.cclonline.com

Novelty and data storage aren't generally words you associate with each other in the PC world. Performance, capacity and efficiency, perhaps, but not novelty. However, novelty is the precise direction Apacer has taken with its PT920 Commando. This 4x PCI-E NVMe drive is designed to look like the main body of an M16-type rifle. It's as clichéd a gamer-orientated design as you can imagine, but you know what? It sort of works.

After all, so many of us buy ATX motherboards and cases with big windows on the side, only to populate them with one graphics card and a measly SATA SSD – or even worse, a near-invisible M.2 SSD. With the Apacer PT920, you can add a bit of extra visual flair to your build. The military look won't suit all builds, but it could be ideal for some. In fact, it's a shame Apacer hasn't gone the whole hog and added an illuminated Apacer logo or another form of lighting to crank up the pizzazz.

Moreover, it's even more of a shame that all the aluminium surrounding the drive serves no practical purpose. It would have been a perfect opportunity for the casing to double as a heatsink, but not only is it not directly connected to any of the SSD's chips but it's not even connected to the PCB other than via a

couple of screws. In fact, the casing could even hinder cooling as it blocks airflow.

What's more, the drive itself isn't even a proper dedicated PCI-E card that can take advantage of the larger form factor to aid cooling. Rather, it's just an M.2 drive mounted on a PCI-E riser. These setups are common enough, and it does mean people with older motherboards and no M.2 slots can get a fast PCI-E SSD, but it really exposes the gun framework as a gimmick.

When it comes to more practical considerations, this drive has plenty going for it. With a maximum sequential read speed of up to 2,500MB/sec and write speed of 860MB/sec (or 1,350MB/sec, depending on capacity), it won't set any speed records, but it's still a decent upgrade from a SATA drive, and the speed is in line with many other similarly priced drives. The same goes for random 4K performance too, with the 240GB and 480GB options providing write speeds of 160,000 IOPS and 175,000 IOPS respectively.

The NAND itself is Toshiba's 15nm MLC, with two modules on each side of the M.2 card. These chips are managed by the Phison PS5007-E7 controller, which uses eight channels to communicate with the NAND. It's a popular and proven controller that's more than capable of delivering the speeds Apacer claims.



The claims were borne out in our testing, where this drive consistently delivered the sort of numbers we'd expect. Its fastest speed was a 32-queue-depth sequential read rate of 2,775MB/sec in CrystalDiskMark, writing at 1,393MB/sec, which couldn't match the Samsung 960 Evo's 3,363MB/sec and 1,724MB/sec in the same test, but it's still a decent boost over a SATA drive. The Apacer also held up well in our real-world PCMark 8 tests, where it was either a similar speed or sometimes a little faster than the Samsung drive.

With capacities of 240GB and 480GB, Apacer isn't providing huge amounts of overprovisioning on these drives, but thanks to their use of MLC NAND rather than TLC, they should still last a good while in terms of total written data. Apacer provides a three-year warranty, which is standard in this price league.

Conclusion

The Apacer PT920 is a perfectly adequate high-end SSD wrapped up in a casing that adds novelty value, but that's not necessarily bad. Its performance isn't extraordinary, but it's solid. It comes down to whether you like the design. If so, go for it. If not, buy a Samsung 960 Evo instead.

EDWARD CHESTER

SPEED
42/50£/GB
14/20BANG/BUCK
20/30OVERALL SCORE
76%**VERDICT**

A gimmicky design can't elevate this SSD to greatness, but it's a perfectly decent SSD if you like its looks.

Its fastest speed was a sequential read rate of 2,775MB/sec