

Kingston SUV500

Not a great choice for consumers, but there are good reasons for business upgraders to take a look

SCORE 

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PRICE MATRIX

£48 240GB <small>(£40 ex VAT)</small>	£75 480GB <small>(£63 ex VAT)</small>	£189 960GB <small>(£158 ex VAT)</small>	£386 1,920GB <small>(£322 ex VAT)</small>
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With stated read/write speeds of up to 520MB/sec and 500MB/sec respectively, it's clear that Kingston isn't pushing the SUV500 as a high-performance SATA 3 drive. Instead, the focus is on reliability and business-grade features, with a five-year warranty, optional 256-bit AES self-encryption and support for TCG Opal 2 security management. If you're looking for drives for your gaming rig, then look elsewhere, but if you're upgrading a

fleet of business desktops, then this could be the drive for you.

The hardware itself feels robust and looks surprisingly stylish, though it matters little with something that will be slotted inside your PC. Kingston also bundles in a coupon for the OEM edition of Acronis True Image, making it easier and faster to migrate old hard disks.

Performance is roughly in line with Kingston's stated speeds. CrystalDiskMark reports sequential read/write speeds of 540MB/sec and 517MB/sec, making this one of the slower 2.5in SATA drives on test, while AS SSD takes those figures down to 520MB/sec and 442MB/sec, again well below the faster drives. Random read/write speeds are better, particularly on high queue-depth, single-threaded workloads, but this isn't a drive you buy for lightning-fast performance – though it's generally a cut above the bargain-basement WD Green.

The surprise is, though, that in real-world applications it's closer to the mid-range, if not better. It's one of the faster SSDs in our file-transfer tests and did much better than expected in our benchmark tests, beating some theoretically faster drives even in the most demanding



ABOVE You won't get lightning-fast speeds with the Kingston, but it's speedy enough for normal desktop use

multitasking component. While no speed demon, it's fast enough for mainstream desktop use, and so ideal for its target business market.

One thing to be wary of is that the capacities are slightly lower than with rival drives, so you have a 240GB drive at the same price as most 250-256GB SSDs, a 480GB drive going up against the 500-512GB models, and so on. This affects value for money slightly, but the prices aren't unreasonable when you factor in the warranty and features – though it's a shame that Kingston doesn't specify a lifespan in total bytes written, while the MTBF rating is just one million hours.

Samsung 860 Pro

Incredible speeds in every area of our testing, but you will have to pay a high price for them

SCORE 

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PRICE MATRIX

£87 256GB <small>(£73 ex VAT)</small>	£164 512GB <small>(£137 ex VAT)</small>	£300 1TB <small>(£250 ex VAT)</small>	£599 2TB <small>(£499 ex VAT)</small>
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Moving out of the hard disk business to focus on solid stage storage might have been one of Samsung's smartest moves. Its M.2 drives offer cutting-edge performance and much the same goes for this 2.5in SATA SSD. The 860 Pro is designed for use in high-end PCs and workstations, pairing its MJX controller with 64-layer MLC flash, promising sequential read speeds of up to 560MB/sec and write speeds of up to 530MB/sec. The stated random

read and write operation speeds are also the highest of any drive on test.

Does this theoretical performance translate to real-world performance? You bet it does. While the 860 Pro doesn't pull ahead of the Seagate Barracuda, WD Blue and Adata SU800 in the CrystalDiskMark benchmark, AS SSD puts it ahead in nearly every test. Its 4KB random read and write speeds are impressive and only the Crucial MX500 can touch it on 4KB 64-thread reads and writes. Some drives can move large amounts of data fast or deal with a lot of tiny files at once, but the 860 Pro does both without breaking a sweat.

Nor does it fall down in real-world usage. The 860 Pro was the fastest 2.5in drive in our file-transfer tests and one of the two fastest in our standard PC Pro benchmark test, drawing with the WD Blue overall. While an NVMe M.2 drive will always give you even more performance, the 860 Pro is about as fast as 2.5in SATA drives get, making it a superb upgrade for existing PCs.

Samsung definitely has confidence in its drive's reliability. It's covered by a five-year warranty and Samsung



ABOVE The 860 Pro is as fast as 2.5in SATA drives get, but you're paying for the privilege

puts the lifespan at up to 4,800TB total bytes written – an astonishing claim, though it varies with the capacity of the drive; our 2TB test model brings it down to 2,400TBW, while the 256GB and 512GB drives come down to 300TB and 600TB.

In fact, there's only one drawback with the 860 Pro – it's a premium and slightly expensive drive. At 256GB you're paying almost double what you would for the competition, and the 1TB, 512GB and 2TB models don't seem any less overpriced. If you must have the fastest, this is it, but the WD Blue gives you nearly the same performance for much less.

