



IRDM ULTIMATE X SSD

Main features

- Fastest PCIe gen 4 x4 NVMe interface
- Read speed up to 5 GB/s
- AMD Ryzen 3000 compatible
- Includes heatsink
- 5-year warranty with free technical support



New definition of performance

Complying with new generation PCIe 4x4 interface, IRDM Ultimate X brings the new definition of SSD for enthusiasts and pro users. Additionally, transfer speed up to 5 000 MB/s read and 4 500 MB/s write, translates into unmatched comfort, no matter if you're a gamer, video expert or photographer.

New possibilities with NVMe

NVM Express communication protocol was designed from the ground up to achieve the potential of fast flash based storage media. By utilizing it in IRDM Ultimate X SSD, we were able to extract the maximum performance from its memory, controller and PCIe Gen 4 x4 interface. NVMe drastically reduces latency and queuing to bring much better responsiveness vs. AHCI-based SSD.

Flexible form factor

IRDM Ultimate X SSD is available in M.2 2280 form factor with PCIe interface. It can be connected into new desktop motherboards and laptops with compatible M.2 port which support NVMe standard. The drive comes with heatsink which reduces the operating temperature and improves sustained performance.

Guaranteed quality

IRDM Ultimate X is based on selected 3D NAND Flash and 8-channel Phison PS5016-E16 controller. Extensive tests and component qualification translate into complete and reliable Solid State Drive. IRDM Ultimate X SSD is covered under 5-year warranty and free technical support.

Performance

Parameter	500 GB	1000 GB	2000 GB
Incompressible data read speed (max.) ¹	5 000 MB/s	5 000 MB/s	5 000 MB/s
Incompressible data write speed (max.) ¹	2 500 MB/s	4 500 MB/s	4 500 MB/s
Random read operations per second (4K files) (max.) ²	550 000 IOPS	750 000 IOPS	750 000 IOPS
Random write operations per second (4K files) (max.) ²	400 000 IOPS	750 000 IOPS	750 000 IOPS

¹ Based on tests performed in Crystal Disk Mark 6.0.0 on SSD in FOB (fresh-out-of-box) state. Actual results may vary depending on your system configuration or SSD wear.

² Based on tests performed in Iometer on SSD in FOB (fresh-out-of-box) state. Actual results may vary depending on your system configuration or SSD wear. GOODRAM may make changes to specifications and product descriptions at any time, without notice.



Physical parameters

Capacities ³	500, 1000, 2000 GB
Form Factor	M.2 2280, M-Key only
Interface	PCIe GEN 4 x4 NVMe
NAND Flash	3D TLC
Controller	Phison PS5016-E16

Reliability and environmental data

Temperature	Operational: 0 ~ 70°C; Storage: -45 ~ 85°C
MTBF	1,7 million hours
Warranty	5-year with free technical support

Logistics data

Product	Capacity	Contains	P/N	EAN
IRDM	500 GB	Includes SSD and heatsink	IRX-SSDPR-P44X-500-80	5908267923184
ULTIMATE X	1000 GB		IRX-SSDPR-P44X-1K0-80	5908267923191
SSD	2000 GB		IRX-SSDPR-P44X-2K0-80	5908267923207

³ Storage capacity for GOODRAM SSD is provided in decimal values, i.e. 1GB = 1 000 000 000 bytes. Operating systems that use the binary conversion, i.e. 1GB = 1,073,741,824 bytes, may show lower storage capacity than provided in this specification. For more information about capacities visit www.goodram.com/SSD. GOODRAM may make changes to specifications and product descriptions at any time, without notice.
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