

## M.2 2280 PCIe NVMe SSD – UltimaPro X



**READ 2900MB/s\***  
**WRITE 2200MB/s\***  
**READ 235K IOPS\***  
**WRITE 230K IOPS\***

120  
GB

240  
GB

480  
GB

960  
GB

### INTRODUCTION

#### UltimaPro X M.2 2280 PCIe Gen3x4 NVMe SSD

The UltimaPro X is Integral's extreme performance SSD that can meet your most demanding gaming, graphic design, and video workflow needs.

The UltimaPro X SSD delivers super-fast speeds of up to 2900MB/s\* read and 2200MB/s\* write, with random read/write IOPS of up to 235K/230K\*.

### PRODUCT OVERVIEW

- UltimaPro X M.2 PCIe NVMe SSDs are up to four times faster in performance when compared to SATA SSDs and are compatible with most computing hardware and software that support the NVMe standard, including small form factor machines (e.g Intel NUC), Ultrabooks, enthusiast desktops.
- Choose the UltimaPro X M.2 PCIe NVMe SSD to break through the 6Gbps SATA limitation for your extreme performance needs. Specifically engineered to compliment high-specification machines and provide the best gaming and multimedia application performance that is ultra-responsive.
- The UltimaPro X SSD has a high read/write IOPS threshold that makes use of every bit of the SSD's superior hardware, giving you the finest experience in professional solid state computing.

### KEY BENEFITS:

- An industry-leading PCIe Gen3x4 interface and NVMe 1.2 standard achieving upto 2900MB/s\* read and 2200MB/s\* write, the Integral UltimaPro X M.2 PCIe NVMe SSDs break through the 6Gbps SATA limitation that takes computing performance to the next level.
- Random read/write IOPS up to of up to 235K/230K\*
- Gamers will benefit from faster loading times, exceptional performance and a more enjoyable gaming experience
- Power-users, content editors, graphic designers and general multi-taskers will all benefit from an ultra-responsive system and super-fast boot
- Improved video workflow when used in machines that work with: Digital film recording, live broadcast, video editing, colour correction and visual effects
- Supports SSD enhanced set of S.M.A.R.T. attributes.

### BENEFITS:

- Sequential Read up to 2900MB/s\*, Write up to 2200MB/s\*
- Random Read 235K 10PS\*, write 230K 10PS.\*
- No mechanical parts
- Highest reliability; less likely to fail than HDD
- Extreme shock resistance
- Zero noise
- No heat generation
- Low power consumption

\*Up to performance may vary depending on host device. (960GB model performance)

## FEATURES

- PCIe Gen3x4
- Compliant with PCI Express Base Specification Rev 3.0
- Compliant with NVMe 1.2
- MLC nand flash technology
- Non-volatile Flash Memory for outstanding data retention
- Ultra-efficient Block Management and Wear Levelling
- Supports S.M.A.R.T. - Self-Monitoring, Analysis and Reporting Technology
- 3 Year Warranty

CAPACITIES & INTERFACE	
Capacities available	120GB, 240GB, 480GB, 960GB
Controller Technology	Phison E7
NAND	MLC
Form Factor	M.2 2280
Interface	PCIe (Gen 3x4)
Compliance	Compliant with PCI Express Base Specification Rev 3.0 NVMe 1.2
Sequential Performance up to <sup>1</sup>	READ 2900MB/s, WRITE 2200MB/s
*Random Performance up to <sup>1</sup>	120GB = READ 119K 10PS, Write 130K 10PS 240GB = READ 210K 10PS, Write 200K 10PS 480GB = READ 210K 10PS, Write 265K 10PS 960GB = READ 235K 10PS, Write 230K 10PS
DIMENSIONS	
Length mm	80
Width mm	22
Height mm	Double side 3.80
Weight	10g
Packaged Weight	58g
Packaged Dimensions (mm)	L = 11.5, W = 13.2, D = 5.7

POWER CONSUMPTION			
Power Management	+3.3V (-+5%)		
Power Consumption (mW) <sup>5</sup>	READ	WRITE	IDIE
	120GB - 4440	3370	400
	240GB - 4890	4810	400
	480GB - 5110	6920	400
960GB - 5120	6930	400	
ENVIRONMENTAL			
Operating Temp <sup>2</sup>	0° - +65°C		
Storage Temp	-40° - +85°C		
Humidity <sup>6</sup>	RH 90% under 40°C		
Linear Shock (non-operating)	1500G (1/2 sine pulse. 0.5ms)		
Vibration (non-operational)	Frequency 20Hz~80Hz/Displacement 1.5mm Frequency 80Hz~2000Hz/Acceleration 30G Vibration XYZ axis/Orientation 60 min for each		
FEATURES			
Supports SMART Software	Yes		
Supports TRIM	Yes (OS support required)		
MTBF <sup>3</sup>	2 Million Hours		
TBW <sup>4</sup>	1200GB - 175 240GB - 349 480GB - 698 960GB - 1396		
Compliance	CE, FCC, RoHS		
WARRANTY			
3 years or TBW			

CAPACITY	PART CODE	BARCODE (EAN)
120GB	INSSD120GM280NUPX	5055288436541
240GB	INSSD240GM280NUPX	5055288436558
480GB	INSSD480GM280NUPX	5055288436565
960GB	INSSD960GM280NUPX	5055288436572

### Notes:

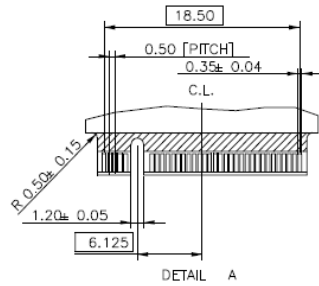
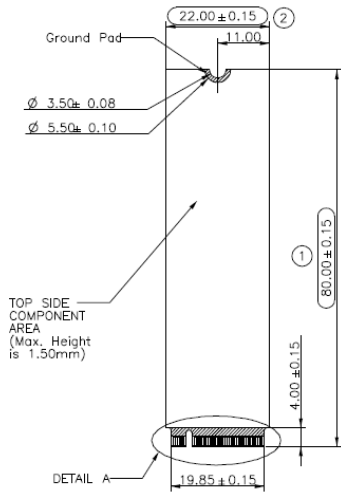
1. Actual performance may vary and depends on use conditions, host and environment
2. Operating temperature is the drive case temperature as measured by the SMART temperature attribute
3. Mean Time Between Failures is estimated based on JEDEC-218/219 standard methodology.
4. TBW (Terabytes Written) DWP (Drive Write Per Day). TBW and DWPD is a measurement of SSDs expected lifespan, which represents the amount of data written to the device. This is only an estimate and can differ based in user usage behaviour, platform and estimates provided by the flash vendor
5. Power Consumption may differ according to flash configuration and platform
6. Humidity test was for 4 hours.

All Specifications are subject to change without notice

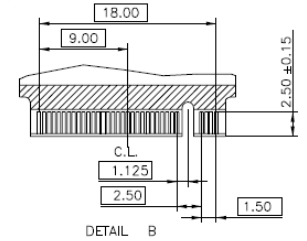
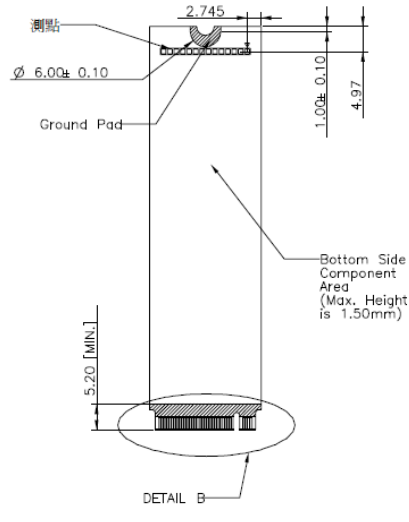
1GB = 1,000,000,000 Bytes, 1TB = 1,000,000,000,000 Bytes; 1 sector = 512 Bytes.

The total usable capacity of the SSD may be less than the total physical capacity because a small portion of the capacity is used for NAND flash management and maintenance purposes.

## TOP VIEW



## BOTTOM VIEW



## SIDE VIEW

