Product Datasheet

512GB PCIE M.2 NVME SSD



- **Product Code:** NB-512M.2/NVME
- **Product EAN:** 5056006104742
- **Warranty:** 3 Year Advanced Replacement

The Inception TLC830 Pro range of SSD Solutions are manufactured by Origin using the highest quality Tier 1 NAND and the latest generation of controllers which enables us to provide both high performance and strong reliability. All of our Inception SSDs come with 3 years advanced replacement warranty alongside free, in -house pre and post sales technical support. We can supply the TLC830 Pro in form factors of 2.5", 3.5" & M.2 with either SATA or NVME interfaces, whilst being available in a range of capacities designed to increase the performance & extend the lifecycle of any laptop or desktop.

Technical Specifications

Power

Operating Voltage:	3.3 V
Power Consumption (read):	2.84 W
Power Consumption (write):	3.22 W
Power Consumption (max):	3.22 W
Power Consumption (average):	3.03 W
Power Consumption (idle):	0.47 W

Operational Conditions

Operating Temperature (T-T):	0 - 70 °C
Storage Temperature (T-T):	-45 - 105 °C
Operating Relative Humidity (H-H):	5 - 98%
Storage Relative Humidity (H-H):	5 - 98%
Operating Vibration:	16 G
Operating Shock:	1500 G
Maximum Operating Altitude:	36576 m

Packaging Data

Storage Drive Adapter Included:	No
Screws Included:	No
Package Type:	Blister

Other Features

Internal:	Yes
Compliance Certificates:	RoHS

Compatible Products:	Universal

Features

SSD Capacity:	512 GB
SSD Form Factor:	M.2
Interface:	PCI Express 3.0
NVMe:	Yes
Memory Type:	3D TLC
Component For:	PC/Laptop
Hardware Encryption:	No
Data Transfer Rate:	640 Gbit/s
Read Speed:	2100 MB/s
Write Speed:	1900 MB/s
Random Read (4KB):	179000 IOPS
Random Write (4KB):	102000 IOPS
Access Time:	0.2 ms
Seek Time:	0 ms
S.M.A.R.T. Support:	Yes
TRIM Support:	Yes
Hot-swap:	No
Mean Time Between Failures (MTBF):	1000000 h
Windows Operating Systems Supported:	Yes
Linux Operating Systems Supported:	Yes
TBW Rating:	100

Logistics Data

Harmonized System (HS) Code:	84717070

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