The **Photon series M.2 SSD device** presents NVMe interface small package **TLC** Flash Disk. Asine's **M.2** flash drive delivers performance and proven reliability. Added benefits of flexibility are built into Asine’s **M.2** storage systems and expandable storage capacity as flash disk capacities increase.

The **M.2** drives support also other specific features such as AES-256 bit hardware encryption, TCG OPAL, fast sanitize erase, high grade industrial certified metal & workmanship.

### Applications

- Industrial & Commercial PC/Tablet systems
- Gaming
- Factory automation
- Navigation, Infotainment,
- Smart Terminals
- Telecomm Hub / Switch
- Airborne Systems
- Rugged Computer
- Security, HLS-Home Land Security
- High-Speed Data Recording
- Video Surveillance, JPEG2000 Capture
- JBOD, NAS, SAN, RAID
Features

- Highest quality 3D TLC Flash technology
- 240GB to 2000GB at TLC of non-volatile Flash memory at M.2 type D5-M
- Interface PCIe Gen3 x4 lane NVMe 1.3 compliant NVMe Secure Erase support
- Security: AES256; compliant NVMe Secure Erase support; Optional OPAL
- Operating temperature: Commercial 0°C ~ +70°C, Industrial -40°C ~ +85°C (Tc)
- Storage temperature -40°C to +85°C
- Humidity 5% to 95% relative, non-condensing
- High data sustained transfer rate: TLC Sequential Read up to 2700MB/Sec sequential Write up to 1750MB/Sec
- Random 4KB block size - Read: Up to 335K IOPS. Write: Up to 280K IOPS
- Reliability – MTBF 1,500,000 hours
  - Embedded EDC/ECC Bad Block Mapping and Management
  - Built-in power-up self test and automatic self-diagnostics
  - Wear-Leveling Algorithm: Dynamic & Static wear leveling
  - Moderate SPOR / PLP
- Power Consumption: up to 5.7 (Active), 0.3W (Idle)
- TBW by JESD218 standard 4KB random write workload – up to 900TBW @ 2TB; Enterprise (option V): 6000 TBW @ 1TB 128K sustain write
- No special drivers - uses compliant NVMe Windows, Linux, VxWorks® drivers
- SSD unit sustain environmental – Operating and non-operating:
  - Shock (operating and non-operating) 1,500 G/0.5ms
  - Vibration - Operating: 2-500Hz, 3.1G
  - Non-operating: 3.1 Grms (5-800Hz)

The Asine M·² is a top reliable high performance storage Solid-State Disk with no moving parts, ideal to meet the reliability requirements for, video and audio applications, as well as bootloader or Firmware / BIOS and embedded high reliability storage. The Asine M·² component is designed to withstand harsh environmental conditions, while operating without compromising on data integrity.

Physical dimensions:
2280:  80 L X 22 W X 3.8 max mm H
Weight-max: 8 gr.

Ordering Information:
P/N Structure: ASCN2M28-[cccc]NAET2

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<thead>
<tr>
<th>P/N</th>
<th>Description</th>
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<tbody>
<tr>
<td>ASCN2M28-0240NAET2</td>
<td>M.2-2280-D5-M TLC 240GB AES256 NVMe Gen3 Commercial temperature</td>
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<tr>
<td>ASCN2M28-0500NAET2</td>
<td>M.2-2280-D5-M TLC 500GB AES256 NVMe Gen3 Commercial temperature</td>
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<td>ASCN2M28-0960NAET2</td>
<td>M.2-2280-D5-M TLC 960GB AES256 NVMe Gen3 Commercial temperature</td>
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<td>ASCN2M28-1920NAET2</td>
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<td>M.2-2280-D5-M TLC 240GB AES256 NVMe Gen3 Industrial temperature</td>
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</tr>
</tbody>
</table>

Operating Industrial temperature(C>Z)(240GB-1920GB), OPAL(A>O), conformal coated (~00F), Enterprise(T>V)(240GB-960GB)