# ADATA Industrial & Embedded Solutions
# M.2 SSD

The ADATA IM2S3168 M.2 2280 solid state drive utilizes 3D NAND flash to provide improved power efficiency and rugged reliability. It sports read/write speeds of up to 550/500MB per second, and with support for LDPC ECC technology, it can safeguard data integrity and maintain high performance. Support for multiple data protection technologies keep data safe, including SM4 algorithm, AES 256-bit encryption, TCG Opal 2.0, and E2E (End-to-End) data protection. ADATA's SSD validation process ensures quality, compatibility, and reliability with functionality testing and reliability assurance. Furthermore, ADATA SSD Toolbox software provides intuitive SSD management, S.M.A.R.T. monitoring, and system optimization to enhance industrial systems.

## Key Features

- P/E cycle upgrade to 3K – improved endurance and reliability
- 3D NAND Flash for higher capacity and durability
- Supports LDPC ECC Technology
- Supports SM4, AES 256-bit encryption, and TCG Opal
- Wide Temperature Support: -40°C to 85°C
- High capacity up to 1TB
- Supports DEVSLP for power efficiency



## Target Applications

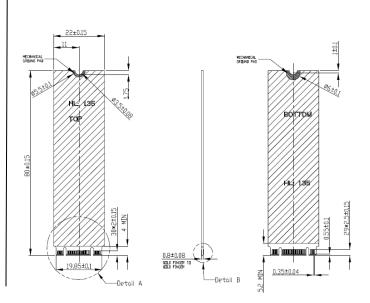Server, Data Center, Surveillance, Transportation, Notebooks, Desktops

| 30µ Golden Finger | Anti-Sulfur Resistor | Conformal Coating | Wide Temperature | EDS & EMI Safe | Shock & Vibration Resistant | Lifetime Monitoring (LTM) | Wear Leveling | Secure Erase | TRIM | Low Power Consumption |
|---|---|---|---|---|---|---|---|---|---|---|
| ● | — | — | ● | ● | ● | ● | ● | ● | ● | ● |

● Supported

## Specifications

| Model | IM2S3168 |
|---|---|
| Interface | SATA III 6.0Gbps |
| Form Factor | M.2 2280 |
| Dimensions (L x W x H) | 80 x 22 x 3.5mm |
| Flash Type | 3D TLC |
| Capacity | 32GB – 1TB |
| Sequential Read (Max.) | 550MB/s |
| Sequential Write (Max.) | 500MB/s |
| Operating Temperature (Commercial) | 0$^0$C to 70$^0$C |
| Operating Temperature (Industrial) | -40$^0$C to 85$^0$C |
| Operating Voltage | 3.3V |
| Operating Humidity | 5%-95% RH non-condensing |
| Power Consumption (Max.) | 1.58W |
| MTBF (Est) | >2,000,000 hours |
| Shock Resistance | 1500G/0.5ms, Half Sine Wave |
| Vibration Resistance | 20G (10-2000Hz) |
| Technologies | DEVSLP, LDPC ECC, SLC Cache, Data Shaping, E2E Data Protection, AES 256-bit Encryption, TCG Opal |

## Ordering Information

| Capacity | Commercial (0$^0$C to 70$^0$C) | Industrial (-40$^0$C to 85$^0$C) |
|---|---|---|
| 32GB | IM2S3168-032GD | IM2S3168-032GP |
| 64GB | IM2S3168-064GD | IM2S3168-064GP |
| 128TB | IM2S3168-128GD | IM2S3168-128GP |
| 256GB | IM2S3168-256GD | IM2S3168-256GP |
| 512GB | IM2S3168-512GD | IM2S3168-512GP |
| 1TB | IM2S3168-001TD | IM2S3168-001TP |

## Dimensions

ADATA Technology
2F, No. 258, Liancheng Rd., Zhonghe Dist.,
New Taipei City 235, Taiwan