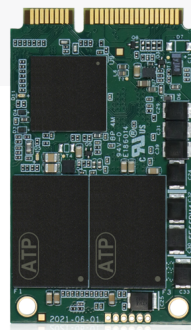




mSATA

The Global Leader in Specialized Storage and Memory Solutions



Key Features

- MCU-based Power Loss Protection Design with Level 4 (data-in-flight) protection*
- Self-Encrypting Drive (SED) with AES 256-bit encryption, TCG Opal 2.0*
- LDPC & RAID Data Recovery
- End-to-End Data Path Protection
- TRIM / Global Wear Leveling support













* May vary by product and project support

Just roughly the size of a business card, ATP's mSATA SSDs offer up to 1 TB capacity and the same speed and efficiency of SATA. They are designed to fit in systems with space constraints and high-performance requirements such as embedded and networking applications.

Two mounting holes keep the mSATA module securely installed, protecting it from shock and vibration. ATP mSATA SSDs are available in industrial temperature ratings for trustworthy performance in sub-freezing or extremely hot settings. Available on select mSATA SSDs, ATP's advanced power loss protection (PLP) technology, which combines hardware and/or software solutions to prevent data corruption and storage device damage when power glitches, losses and failures occur.

Specifications

| SATA III mSATA SSD | | | | | | | | |
|--|----------------------------|--------------------------------------|----------|------------------|-------------|---------------|-------------|----------------|
| Product Line | Premium | | | Superior | | | | Value |
| | A800Pi | A750Pi | A700Pi | A650Si | A650Sc | A600Si | A600Sc | A600Vc |
| Interface | SATA III 6 Gb/s | | | | | | | |
| Flash Type | SLC | 3D TLC (pSLC mode) | | 3D TLC | | | | |
| Form Factor | MO-300A | | | | | | | |
| Operating Temperature (Tcase) ¹ | -40°C to 85°C | -40°C to 85°C | | -40°C to 85°C | 0°C to 70°C | -40°C to 85°C | 0°C to 70°C | 0°C to 70°C |
| Power Loss Protection Options | Hardware + Firmware Based | | | | | | | Firmware Based |
| Optional SED Features | AES 128/256-bit Encryption | AES 256-bit Encryption, TCG Opal 2.0 | | | | | | - |
| Capacity | 8 GB to 128 GB | 40 GB to 160 GB | | 120 GB to 480 GB | | | | 32 GB to 1 TB |
| Performance | | | | | | | | |
| Sequential Read (MB/s) up to | 530 | 560 | | 560 | | 560 | | 560 |
| Sequential Write (MB/s) up to | 430 | 520 | | 480 | | 510 | | 525 |
| Random Reads IOPS up to | 76,000 | 90,000 | 94,000 | 100,000 | | 100,000 | | 72,000 |
| Random Writes IOPS up to | - | 88,000 | 85,000 | 90,000 | | 88,000 | | 85,000 |
| Endurance and Reliability | | | | | | | | |
| Endurance (TBW) ² up to | 10,667 TB | 9,600 TB | 6,400 TB | 2,327 TB | | 1,396 TB | | 2,792 TB |
| Reliability MTBF @ 25°C | >2,000,000 hours | | | | | | | |
| Others | | | | | | | | |
| Dimensions (mm) | 50.8 x 29.85 x 3.5 | | | | | | | |
| Certifications | CE, FCC, UKCA, RoHS, REACH | CE, FCC, BSMI, UKCA, RoHS, REACH | | | | | | |
| Warranty | 5 years | | | 2 years | | | | |

| Technologies & Add-On Services |  S.M.A.R.T. |  Firmware-based Power Loss Protection |  Hardware-based Power Loss Protection |  AutoRefresh |  Advanced Wear Leveling |  Dynamic Data Refresh |  Auto-Read Calibration |  Secure Erase |  TCG Opal 2.0 |  Industrial Temperature |  Anti-Sulfur Resistors |  Conformal Coating |
|--------------------------------|--|--|--|---|--|--|---|--|---|--|---|---|
| Premium | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ▲ | ○ | ○ | ▲ | ▲ |
| Superior | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ▲ | ○ | ▲ | ▲ | ▲ |
| Value | ○ | ○ | — | ○ | ○ | ○ | — | — | — | — | — | — |

¹ Case Temperature, the composite temperature as indicated by SMART temperature attributes.

² Under highest Sequential write value. May vary by density, configuration and applications.

▲: Customization option available on a project basis.

| Hot Items Ordering Information | | | | | |
|--------------------------------|-----------------------|------------------------------------|------------------------------------|------------------|------------------|
| Product Line | Capacity ₁ | Operating Temperature ₂ | Power Loss Protection ₃ | SED ₄ | P/N |
| A800Pi | 8GB | -40°C to 85°C | Hardware + Firmware Based | - | AF8GSSHI-VACXP |
| A800Pi | 16GB | -40°C to 85°C | Hardware + Firmware Based | - | AF16GSSHI-VACXP |
| A800Pi | 32GB | -40°C to 85°C | Hardware + Firmware Based | - | AF32GSSHI-VACXP |
| A800Pi | 64GB | -40°C to 85°C | Hardware + Firmware Based | - | AF64GSSHI-VACXP |
| A800Pi | 128GB | -40°C to 85°C | Hardware + Firmware Based | - | AF128GSSHI-VAAXP |
| A650Sc | 120GB | 0°C to 70°C | Hardware + Firmware Based | - | AF120GSTHI-7BCXP |
| A650Sc | 240GB | 0°C to 70°C | Hardware + Firmware Based | - | AF240GSTHI-7BCXP |
| A650Sc | 480GB | 0°C to 70°C | Hardware + Firmware Based | - | AF480GSTHI-7BCXP |
| A600Vc | 32GB | 0°C to 70°C | Firmware Based | - | AF32GSTHI-2BAXX |
| A600Vc | 64GB | 0°C to 70°C | Firmware Based | - | AF64GSTHI-2BAXX |
| A600Vc | 128GB | 0°C to 70°C | Firmware Based | - | AF128GSTHI-2BAXX |
| A600Vc | 256GB | 0°C to 70°C | Firmware Based | - | AF256GSTHI-2BAXX |
| A600Vc | 512GB | 0°C to 70°C | Firmware Based | - | AF512GSTHI-2BAXX |
| A600Vc | 128GB | 0°C to 70°C | Firmware Based | - | AF128GSTHI-2BBXX |
| A600Vc | 256GB | 0°C to 70°C | Firmware Based | - | AF256GSTHI-2BBXX |
| A600Vc | 512GB | 0°C to 70°C | Firmware Based | - | AF512GSTHI-2BBXX |
| A600Vc | 1TB | 0°C to 70°C | Firmware Based | - | AF1TSTHI-2BBXX |

1 Amount of actual usable storage that can be utilized.

2 Refers to Case Temperature range during device operation, as indicated by SMART temperature attributes.

3 Hardware + Firmware-based power loss protection design with Level 4 (data-in-flight) protection; Firmware-based power loss protection design with Level 1 (data-at-rest) protection.

4 Allows data written to and read from the SSD to be constantly and automatically encrypted and decrypted. Conforms to TCG Opal 2.0 and uses AES 256-bit HW encryption.

Product spec and its related information are subject to change without advance notice.
Please refer to www.atpinc.com for latest information

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