

## ATP Next-Gen A600Si/A600Sc SATA SSDs Feature Breakthrough MCU Design for Enhanced Power Management and PLP Capabilities

*PowerProtector 4 combines HW/FW solutions to safeguard data and storage device for higher levels of integrity and reliability*



Taipei, Taiwan (November 2019) – ATP Electronics, the leading manufacturer of industrial-only memory and storage solutions, unveils its next-generation A600Si and A600Sc Serial ATA solid state drives (SATA SSDs) featuring a completely new design of the power loss protection (PLP) array, which utilizes a new power management IC (PMIC) and new firmware-programmable MCU (microcontroller unit).

Integrated into its latest PLP technology, ATP PowerProtector 4, the new MCU design allows the PLP array to perform intelligently in various temperatures, power glitches and charge states.

“Superior power loss protection is essential in any embedded/industrial application. But not all PLPs are equal,” said Marco Mezger, ATP Vice President of Global Marketing. “By implementing this type of MCU design, we are able to showcase our engineering expertise and nearly 30-year experience in the design and manufacture of storage devices for wide temperature environments, particularly for compact form factors in embedded/industrial applications. We continue to blaze the trail, as we were also the first to design and release smaller form factor SSDs such as eUSB and M.2 2242 with an onboard PLP array.”

ATP SATA SSDs with the new PowerProtector 4 MCU-based design have the following advantages:

- **Enhanced device protection**
  - Suppression of power-up inrush current according to customer request
  - Input over-voltage protection to prevent damage to the SSD circuitry
- **Better data integrity**
  - Input power noise de-glitch to prevent incorrect cache flushing caused by false triggers such as noisy or unstable host input voltage.
  - Under-charge/over-charge protection for hold-up power capacitors
- **Fast power on/off control** cuts the time required from power-off to re-power on the SSD
- **Precise control of reset signal generation and power up/down sequences** prevents potential issues in the power up/down of the SSD
- **Industrial operating temperature** support ensures reliable operation in extreme environments from -40°C to 85°C. As components perform and react differently in severely cold or hot

scenarios, ATP PowerProtector 4 ensures reliable PLP capacitance in all states of cold start, hot temperature workload, and cross temperature.

- **RAID support** ensures redundancy and fault tolerance to prevent data loss in the event of a drive failure
- **End-to-end data protection** prevents unauthorized access to data while it is being transferred from one storage device to another.
- **Customization options.** The new MCU-based design allows PLP capabilities to be tailor-fitted according to unique customer requirements, application-specific needs, or use cases.

The next-generation ATP SATA SSDs with the new MCU-based design include mSATA, 2.5" SSDs and M.2 2242/2280 modules. Available with I-Temp (A600Si) and C-Temp (A600Sc) support, the SSDs come in the following capacities — M.2 2280: 120 to 960 GB; M.2 2242 and mSATA: 120 to 480 GB; 2.5": 120 GB to 1.92 TB

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ATP Electronics is the leading provider of "Industrial Only" NAND flash products and DRAM modules for demanding industrial/automotive applications requiring the highest levels of performance, reliability and endurance. A true manufacturer for over 25 years, ATP manages every stage of the manufacturing process to ensure quality and product longevity, offering in-house design, testing, and tuning from component to product level. For more information on ATP Electronics, please visit [www.atpinc.com](http://www.atpinc.com) or contact us at [info@atpinc.com](mailto:info@atpinc.com).