

# Apacer



Apacer Professional Solutions (SSD & DRAM)

## Access Limitless Creativity to Spark Your Vision

Brochure



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**In a World**

## **Where Data Drives Every Decision,**

Apacer leads the charge in technology innovation, providing state-of-the-art SSD and DRAM solutions tailored to both consumer and industrial needs. From purpose-driven applications to immersive entertainment, we ensure seamless data storage, fast processing, and unmatched reliability for a wide spectrum of use cases.

At Apacer, we go beyond delivering products — we partner with you to solve challenges, optimize performance, and future-proof your operations. With our commitment to excellence and a focus on empowering businesses and individuals, we help you unlock the full potential of your data.

**Access the Best — Where Reliability Meets Innovation.**

**“At Apacer, innovation is at the heart of everything we do. We're unlocking the full potential of data, no matter where it resides, and delivering transformative solutions that drive business growth and enrich lives worldwide.”**

**Gibson Chen**

President of Apacer





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## Access Creativity to Transform Your Professional Workspace

In today's digital era, success hinges on tools that boost productivity, streamline data management, and ensure security. Our high-performance storage solutions—SSDs, DRAM, microSD cards, and CFexpress cards—are crafted to tackle even the most demanding projects. By enhancing workflow and workplace efficiency, we empower you to bring your vision to life and achieve your goals with confidence and precision.



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Apacer provides a comprehensive 9-tailed storage solutions designed to meet your specific business needs and future demands. Our Innovations optimize performance, enhance work efficiency, and drive business growth.



### Retail POS Systems

#### **Faster Transactions, Reliable Operations**

Apacer SSD and microSD cards ensure quick transactions and 24/7 reliability, minimizing downtime and enhancing the customer experience.



### Kiosks

#### **Durable Performance in Public Spaces**

Built for high-traffic areas, Apacer SSD and microSD cards offer exceptional durability and consistent performance for unattended kiosks.



### All-in-One Systems (AIO)

#### **Efficient Multitasking, Seamless Use**

Apacer SSD and DRAM provide high-speed, responsive performance for compact AIO systems, ideal for work or entertainment.



### PC Upgrades

#### **Extend Lifespan, Boost Speed**

Upgrade your PC with Apacer SSD and DRAM for faster boot times, smoother multitasking, and more storage.



### NAS Systems

#### **Efficient Storage, Reliable Access**

Apacer SSD delivers high speed and durability for small office NAS systems, improving workflow and data access.



### Thin Clients

#### **Energy-Efficient, Streamlined Solutions**

Optimize virtual workspaces with Apacer SSD and DRAM, offering lag-free performance for cloud-based applications.





## Mini PCs

### Compact Power, Big Performance

Apacer SSD and DRAM provide efficient, high-performance solutions for space-saving mini PCs.



## Dash Cams

### Reliable Storage for Critical Moments

Designed for continuous recording, Apacer microSD cards deliver exceptional durability and reliable performance, ensuring vital footage is safely stored.



## Photography

### High-Speed, Dependable Storage

Apacer CFexpress cards provide fast data transfer speeds and robust durability, making them perfect for capturing high-resolution photos and videos in demanding conditions.





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## Purpose-built SSD Technologies for Modern Workforce Applications

Apacer offers high-performance storage solutions designed to meet the needs of professionals. Built for reliability, endurance, and speed, our purpose-built SSD ensures smooth and seamless operation, whether you're managing demanding tasks, handling large files, or creating on the go. Elevate your work with storage you can depend on.



Let us help you modernize your storage solutions, so you can focus on driving business growth.



## Longevity



### Page Mapping

#### Optimize Performance by Flash Management

Apacer Page Mapping can reduce block erase frequency to boost random access speeds, extend the SSD's lifespan, and ensure optimal performance.



### S.M.A.R.T.

#### Self-monitoring System to Monitor SSD Status

Apacer S.M.A.R.T. is an early warning system to help users avoid unexpected downtime and offers real-time indicators of SSD health and potential issues.

## Data Integrity



### Smart Read Refresh™

#### Ensure Data Access Over Time

Apacer Smart Read Refresh provides a more durable experience. The data will be rewritten to a different block to prevent read disturb errors and reduce the risk of corruption or loss.



### Thermal Throttling

#### Ensure Performance Under Heat

Apacer's Thermal Throttling dynamically adjusts frequency to manage device temperature, sustaining performance and enhancing data reliability during overheating conditions.

## Value-added



### Apacer SSD Utility

#### Proactive SSD Health Management for Continuity

Apacer's SSD Utility provides a user-friendly interface for real-time SSD health monitoring and workload analysis, preventing failures from excessive tasks in demanding environments.



# UDIMM

## Features

- **JEDEC-compliant Design** - Ensures seamless compatibility in purpose-built systems.
- **Power Management IC (PMIC) (DDR5 Voltage: 1.1V)** - Efficiently regulates system power load, ensuring stable and reliable power delivery.



DDR5 UDIMM



DDR4 UDIMM

| Model            | PC5-44800     | PC5-38400     | PC4-25600     | PC4-21300         |
|------------------|---------------|---------------|---------------|-------------------|
| Form Factor      | DDR5 UDIMM    | DDR5 UDIMM    | DDR4 UDIMM    | DDR4 UDIMM        |
| Capacity         | 8GB/16GB/32GB | 8GB/16GB/32GB | 8GB/16GB/32GB | 4GB/8GB/16GB/32GB |
| Frequency (MT/s) | 5600          | 4800          | 3200          | 2666              |
| Voltage          | 1.1V          | 1.1V          | 1.2V          | 1.2V              |
| CL Timing        | CL46          | CL40          | CL22          | CL19              |
| Pin              | 288-Pin       | 288-Pin       | 288-Pin       | 288-Pin           |



DDR4 UDIMM



DDR3 UDIMM

| Model            | PC4-19200    | PC4-17000    | PC3-12800   | PC3-10600   |
|------------------|--------------|--------------|-------------|-------------|
| Form Factor      | DDR4 UDIMM   | DDR4 UDIMM   | DDR3 UDIMM  | DDR3 UDIMM  |
| Capacity         | 4GB/8GB/16GB | 4GB/8GB/16GB | 2GB/4GB/8GB | 2GB/4GB/8GB |
| Frequency (MT/s) | 2400         | 2133         | 1600        | 1333        |
| Voltage          | 1.2V         | 1.2V         | 1.35V/1.5V  | 1.35V/1.5V  |
| CL Timing        | CL17         | CL15         | CL11        | CL11        |
| Pin              | 288-Pin      | 288-Pin      | 240-Pin     | 240PIN      |





# SODIMM

## Features

- **JEDEC-compliant Design** - Ensures seamless compatibility in purpose-built systems.
- **Power Management IC (PMIC) (DDR5 Voltage: 1.1V)** - Efficiently regulates system power load, ensuring stable and reliable power delivery.



DDR5 SODIMM



DDR4 SODIMM

| Model            | PC5-44800     | PC5-38400     | PC4-25600     | PC4-21300         |
|------------------|---------------|---------------|---------------|-------------------|
| Form Factor      | DDR5 SODIMM   | DDR5 SODIMM   | DDR4 SODIMM   | DDR4 SODIMM       |
| Capacity         | 8GB/16GB/32GB | 8GB/16GB/32GB | 8GB/16GB/32GB | 4GB/8GB/16GB/32GB |
| Frequency (MT/s) | 5600          | 4800          | 3200          | 2666              |
| Voltage          | 1.1V          | 1.1V          | 1.2V          | 1.2V              |
| CL Timing        | CL46          | CL40          | CL22          | CL19              |
| Pin              | 262-Pin       | 262-Pin       | 260-Pin       | 260-Pin           |



DDR4 SODIMM



DDR3 SODIMM

| Model            | PC4-19200    | PC4-17000    | PC3-12800   | PC3-10600   |
|------------------|--------------|--------------|-------------|-------------|
| Form Factor      | DDR4 SODIMM  | DDR4 SODIMM  | DDR3 SODIMM | DDR3 UDIMM  |
| Capacity         | 4GB/8GB/16GB | 4GB/8GB/16GB | 2GB/4GB/8GB | 2GB/4GB/8GB |
| Frequency (MT/s) | 2400         | 2133         | 1600        | 1333        |
| Voltage          | 1.2V         | 1.2V         | 1.35V/1.5V  | 1.35V/1.5V  |
| CL Timing        | CL17         | CL15         | CL11        | CL11        |
| Pin              | 260-Pin      | 260-Pin      | 204-Pin     | 240PIN      |



## PCIe SSD

### Features

- **TRIM Support** - Improves compatibility, endurance and performance.
- **S.M.A.R.T. Support and Apacer SSD Utility** - Self-monitoring system to monitor SSD status.
- **Heat Spreader (PB4480 & PD4480)** - Avoid SSD overheating and ensure stable performance.



| Model                                    | PB5480*                                | PB4480                        | PD4480                                                                                         |
|------------------------------------------|----------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------|
| Capacity                                 | 1TB/2TB                                | 256GB/512GB/<br>1TB/2TB/4TB   | 256GB/512GB/1TB/2TB                                                                            |
| Interface                                | PCIe Gen5 x4<br>NVMe 2.0               | PCIe Gen4 x4<br>NVMe 1.4      | PCIe Gen4 x4<br>NVMe 1.4                                                                       |
| NAND Flash                               | 3D NAND                                | 3D TLC                        | 3D NAND                                                                                        |
| Sequential Read/<br>Write (MB/s) (Max)** | 10300/8600                             | 5000/4400                     | 3600/3000                                                                                      |
| Operating<br>Temperature (°C)            | 0°C ~ 70°C                             | 0°C ~ 70°C                    | 0°C ~ 70°C                                                                                     |
| Terabytes Written<br>(TBW)               | 600/1200                               | 200/400/800/<br>1600/3200     | 200/400/800/1600                                                                               |
| MTBF (Hours)                             | >2,000,000                             | >2,000,000                    | >2,000,000                                                                                     |
| Dimensions (mm)                          | (L)30.00 x (W)22.00 x (H)2.38          | (L)30.00 x (W)22.00 x (H)2.43 | Single side:<br>(L)30.00 x (W)22.00 x (H)2.43<br>Double side:<br>(L)30.00 x (W)22.00 x (H)3.78 |
| Warranty                                 | 3 years or TBW, whichever occurs first |                               |                                                                                                |

\*Apacer provides ready-to-use heat dissipation devices if a cooling solution is required for this model.

\*\*The performance may vary due to host hardware, software, usage and storage capacity.





| Model                                    | PB3480                                 | PE4430                           | PE4430-R                               |
|------------------------------------------|----------------------------------------|----------------------------------|----------------------------------------|
| Capacity                                 | 256GB/512GB/1TB/2TB                    | 1TB/2TB                          | 1TB/2TB                                |
| Interface                                | PCIe Gen3 x4<br>NVMe 1.3               | PCIe Gen4 x4                     | PCIe Gen4 x4                           |
| NAND Flash                               | 3D NAND                                | 3D NAND                          | 3D NAND                                |
| Sequential Read/<br>Write (MB/s) (Max)** | 3500/2550                              | 5500/5200                        | 5500/5200                              |
| Operating<br>Temperature (°C )           | 0°C ~ 70°C                             | 0°C ~ 70°C                       | 0°C ~ 70°C                             |
| Terabytes Written<br>(TBW)               | 200/400/600/1200                       | 512/1024                         | 700/1400                               |
| MTBF (Hours)                             | >2,000,000                             | >2,000,000                       | >2,000,000                             |
| Dimensions (mm)                          | (L)80.00 x (W)22.00 x (H)2.25          | (L)30.00 x (W)22.00 x (H) 2.43mm | (L)30.00 x (W)22.00 x (H) 2.43mm       |
| Warranty                                 | 3 years or TBW, whichever occurs first |                                  | 5 years or TBW, whichever occurs first |

\*Apacer provides ready-to-use heat dissipation devices if a cooling solution is required for this model.

\*\*The performance may vary due to host hardware, software, usage and storage capacity.



## 2.5" SATA SSD

### Features

- **TRIM Support** - Improves compatibility, endurance and performance.
- **S.M.A.R.T. Support and Apacer SSD Utility** - Self-monitoring system to monitor SSD status.



| Model                               | PBSS25                                 |
|-------------------------------------|----------------------------------------|
| Capacity                            | 256GB/512GB/1TB/2TB/4TB/8TB            |
| Interface                           | SATA III                               |
| NAND Flash                          | 3D NAND                                |
| Sequential Read/Write (MB/s) (Max)* | 550/520                                |
| Operating Temperature (°C )         | 0°C ~ 70°C                             |
| Terabytes Written (TBW)             | 180/360/450/900/1350/1800              |
| MTBF (Hours)                        | >2,000,000                             |
| Dimensions (mm)                     | (L)99.90 x (W)69.90 x (H)6.90          |
| Warranty                            | 3 years or TBW, whichever occurs first |

\*The performance may vary due to host hardware, software, usage and storage capacity.



## NAS SSD

### Features

- **Tailored Specifically for NAS Systems** - Easily upgrade NAS systems for reliable 24/7 year-round performance.
- **High Durability, Performance and Reliability** - Quickly access high-resolution digital files in a secure NAS environment.
- **Power Saving Implemented** - Reduce energy consumption for longer-lasting performance.



| Model                               | PPSS25-R                               | PP3480-R                      | PB4480-R                      |
|-------------------------------------|----------------------------------------|-------------------------------|-------------------------------|
| Capacity                            | 256GB/512GB/1TB/2TB                    | 256GB/512GB/1TB/2TB           | 512GB/1TB/2TB/4TB             |
| Interface                           | SATA III                               | PCIe Gen3 ×4                  | PCIe Gen4 ×4                  |
| NAND Flash                          | 3D TLC                                 | 3D TLC                        | 3D TLC                        |
| Sequential Read/Write (MB/s) (Max)* | 560/510                                | 2450/2000                     | 5000/4400                     |
| Operating Temperature (°C )         | 0°C ~ 70°C                             | 0°C ~ 70°C                    | 0°C ~ 70°C                    |
| Terabytes Written (TBW)             | 385/820/2065/3750                      | 500/1000/2000/4000            | 500/1000/2000/4000            |
| MTBF (Hours)                        | >2,000,000                             | >2,000,000                    | >2,000,000                    |
| Dimensions (mm)                     | (L)100.00 x (W)69.85 x (H)7.00         | (L)80.00 x (W)22.00 x (H)2.15 | (L)80.00 x (W)22.00 x (H)2.43 |
| Warranty                            | 5 years or TBW, whichever occurs first |                               |                               |

\*The performance may vary due to host hardware, software, usage and storage capacity.



## CFexpress Card

### Features

- **Apacer Professional High-endurance Series** - Ultra-high-speed access, optimized for image capture.
- **S.M.A.R.T. Support and Apacer SSD Utility** - Self-monitoring system to monitor CFexpress card status.



| Model                               | PB42CF-R                               |
|-------------------------------------|----------------------------------------|
| Capacity                            | 512GB/1TB/2TB/4TB                      |
| Interface                           | PCIe Gen4 x2 CFexpress Type B          |
| NAND Flash                          | 3D NAND                                |
| Sequential Read/Write (MB/s) (Max)* | 3700/3100                              |
| Operating Temperature (°C )         | -12°C ~ 72°C                           |
| Terabytes Written (TBW)             | 450/900/1800/3600                      |
| MTBF (Hours)                        | >2,000,000                             |
| Dimensions (mm)                     | (L)38.50 x (W)29.60 x (H)3.80          |
| Warranty                            | 5 years or TBW, whichever occurs first |

\*The performance may vary due to host hardware, software, usage and storage capacity.





## microSD Card

### Features

- **Fixed Controller/Fixed BOM** - Ensure product reliability and compatibility.
- **Up to 40,000 Hours of Non-stop Operation** - Provide long continuous recording without any dropped frames.
- **Waterproof, Anti-drop, Anti-magnetic, and Anti-X-ray** - Protect precious data in demanding environments.



| Model                                | Endurance                                                                                                                    | PMA131/PMA231                                                                                                                | PRA233/PRA212                                                                                                    |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| BOM Control                          | Fixed Controller                                                                                                             | Fixed BOM*                                                                                                                   | Fixed BOM*                                                                                                       |
| Capacity                             | 32GB/64GB/128GB/256GB                                                                                                        | PMA131 : 8GB<br>PMA231 :<br>16GB/32GB/64GB/128GB/<br>256GB/512GB                                                             | PRA233 : 32GB<br>PRA212 : 64GB                                                                                   |
| Standard                             | SD5.1 UHS-1                                                                                                                  | SD6.1 UHS-1                                                                                                                  | SD6.1 UHS-1                                                                                                      |
| Speed Class                          | UHS Speed : Class 1/Class 3<br>Speed Class : Class 10<br>Video Speed Class : V10/V30<br>Application Performance Class:<br>A1 | UHS Speed : Class 1/Class 3<br>Speed Class : Class 10<br>Video Speed Class : V10/V30<br>Application Performance Class:<br>A2 | UHS Speed : Class 3<br>Speed Class : Class 10<br>Video Speed Class : V30<br>Application Performance Class:<br>A2 |
| Sequential Read/Write (MB/s) (Max)** | 100/80                                                                                                                       | 100/85                                                                                                                       | 100/45                                                                                                           |
| Operating Temperature (°C)           | -25°C ~ 85°C                                                                                                                 | -25°C ~ 85°C                                                                                                                 | -25°C ~ 85°C                                                                                                     |
| Dimensions (mm)                      | (L)15.00 x (W)11.00 x (H)1.00                                                                                                | (L)15.00 x (W)11.00 x (H)1.00                                                                                                | (L)15.00 x (W)11.00 x (H)1.00                                                                                    |
| Warranty                             | 3 years limited                                                                                                              |                                                                                                                              |                                                                                                                  |

\*Fixed BOM, including controller, flash and firmware.

\*\*The performance may vary due to host hardware, software, usage and storage capacity.



## USB Drive

### Features

- **Fixed Controller** - Ensure product reliability and compatibility.
- **ECC Engine** - Ensure reliable data integrity with error detection and correction.
- **Power Saving Implemented** - Reduce energy consumption for longer-lasting performance.
- **Advanced Wear-leveling Algorithms** - Ensure having lower erase counts to extend SSD lifespan.



| Model               | PAH355                                                                            | PAH356                                                                            |
|---------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Capacity            | 32GB/64GB/128GB                                                                   | 32GB/64GB/128GB                                                                   |
| Interface           | SuperSpeed USB 3.2 Gen1 (5Gb/s)*, backward compatible with USB 2.0                | SuperSpeed USB 3.2 Gen1 (5Gb/s)*, backward compatible with USB 2.0                |
| Color               | Black                                                                             | Black                                                                             |
| Material            | Plastic                                                                           | Plastic                                                                           |
| Power Consumption** | Active mode <500 mA                                                               | Active mode <500 mA                                                               |
| System Supported    | - Windows 11/10/8.1/8<br>- macOS 10.6.X or above<br>- Linux Kernel 2.6.X or above | - Windows 11/10/8.1/8<br>- macOS 10.6.X or above<br>- Linux Kernel 2.6.X or above |
| Connector           | USB-A                                                                             | USB-A                                                                             |
| Dimensions (mm)     | (L)56.05 x (W)18.00 x (H)8.50                                                     | (L)53.89 x (W)20.91 x (H)8.80                                                     |
| Weight              | 7.8g                                                                              | 8.5g                                                                              |
| Warranty            | 3 years limited                                                                   |                                                                                   |

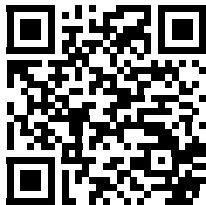
\*The performance may vary due to host hardware, software, usage and storage capacity.

\*\*Power consumption is measured using CrystalDiskMark 8.0.4 with file size 1000 MB.

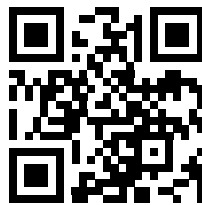


# Unlock your business's potential in the digital era with Apacer.

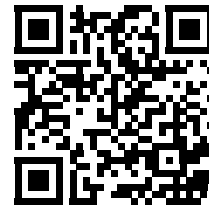
Learn more at [www.apacer.com](http://www.apacer.com).



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Website



Contact us

## Global Presence

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