

## Industrial SSD & DRAM Solutions for Factory Automation Applications



Factory automation provides a compelling way to boost quality, efficiency, sustainability and security. Developing truly independent automated facilities requires not only components with incredible reliability and robust designs, but also excellent data integrity. In order to meet the demands of the factory automation industry, Apacer offers high-performance industrial SSD and memory solutions, and provides a variety of value-adding technologies to help ensure **reliability, stability** and **data integrity**.

### Featured Technologies for Factory Automation Applications



#### Anti-Sulfuration

Apacer's world's first patented anti-sulfuration DRAM modules and anti-sulfuration SSDs with the industry's highest level of anti-corrosion ANSI/ISA 71.04 G3 Certification can meet the needs of industrial products facing harsh environments.



#### SLC-liteX

Apacer's 3D NAND SLC-liteX technology breaks through the limitations of existing technology and provides up to 100,000 P/E cycles, which is over 33 times more than MLC or industrial 3D TLC.



#### Data Integrity

- CoreSnapshot



#### Power Stability

- CorePower
- DataDefender™



#### Longevity

- SLC-liteX
- Over-provisioning
- Fixed BOM
- 6+6 PCN/EOL Policy



#### Survivability

- Anti-Sulfuration
- Conformal Coating
- Nano Coating (IP57)
  - Sidifill
- Wide Temperature

# Recommended Industrial SSD Solutions



Model	PV220-M280	PV220-M242	SV240-25	SV24P-25	SV250-M280	SV24P-M280	SH250-M242	SV250-300
<b>Features</b>	<b>Anti-Sulfuration, CoreGlacier™</b>	<b>DataDefender™</b>	<b>AES 256-bit Encryption</b>	<b>CorePower</b>	<b>CoreSnapshot, Anti-Sulfuration</b>	<b>CorePower</b>	<b>AES 256-bit Encryption, High Endurance, SLC-liteX</b>	<b>AES 256-bit Encryption, TCG Opal 2.0, Write Protect Switch</b>
<b>Form Factor</b>	M.2 2280	M.2 2242	2.5"	2.5"	M.2 2280	M.2 2280	M.2 2242	JEDEC MO-300
<b>Interface</b>	PCIe Gen3 x4	PCIe Gen3 x4	SATA 3.2 (6Gb/s)	SATA 3.2 (6Gb/s)	SATA 3.2 (6Gb/s)	SATA 3.2 (6Gb/s)	SATA 3.2 (6Gb/s)	SATA 3.2 (6Gb/s)
<b>Connector</b>	M.2 M Key	M.2 M Key	(7+15) pin	(7+15) pin	M.2 B & M Key	M.2 B & M Key	M.2 B & M Key	52-pin mSATA
<b>NAND Flash Type</b>	3D TLC							
<b>Capacity</b>	120~1920 GB	240~960 GB	120~1920 GB	120~1920 GB	30~1920 GB	120~1920 GB	10~160 GB	30~1920 GB
<b>External DRAM</b>	No	No	Yes	Yes	No	Yes	No	No
<b>Max. R/W Performance (MB/sec)</b>	2350/2230	2390/2205	560/505	560/495	560/520	560/495	560/520	560/515
<b>Standard Operating Temp. (°C)</b>	0 ~ +70	0 ~ +70	0 ~ +70	0 ~ +70	0 ~ +70	0 ~ +70	0 ~ +70	0 ~ +70
<b>Wide Temp. (°C)</b>	-40 ~ +85	-40 ~ +85	-40 ~ +85	-40 ~ +85	-40 ~ +85	-40 ~ +85	-40 ~ +85	-40 ~ +85
<b>MTBF (Hours)</b>	>3,000,000	>3,000,000	>3,000,000	>3,000,000	>3,000,000	>3,000,000	>3,000,000	>3,000,000
<b>Recommended Applications</b>	Motor Automation		IPC		Wafer Die Cutting		CNC System	Wire Processing System, Semiconductor Manufacturing Equipment



Model	SV250-CFast	Industrial SD R1	CH120-MSD	Industrial CF6A	CH710-CF	UV110-UFD1	UH110-UFM1
<b>Features</b>	<b>TCG Opal 2.0, Write Protect Switch</b>		<b>High Endurance, SLC-liteX (CH120-MSD)</b>		<b>High Endurance, SLC-liteX</b>	<b>Bidirectional Security Identification</b>	<b>High Endurance, SLC-liteX</b>
<b>Form Factor</b>	CFast	SD	Micro SD	CompactFlash Type I	CompactFlash Type I	USB Flash Drive	USB Disk Module
<b>Interface</b>	SATA 3.2 (6Gb/s)	SD 3.0	SD 6.1	PC Card Memory Mode; PC Card I/O Mode; True IDE Mode	PC Card Memory Mode; PC Card I/O Mode; True IDE Mode	USB 3.1 Gen1	USB 2.0
<b>Connector</b>	(7+17) pin	-	-	50-pin	50-pin	USB Type A Plug	10-pin (2x5) Female Header in 2.54mm
<b>NAND Flash Type</b>	3D TLC	SLC	3D TLC	SLC	3D TLC	3D TLC	3D TLC
<b>Capacity</b>	30~480 GB	512MB, 1~16 GB	16~128 GB	256MB ~ 32GB	8~64 GB	16~256 GB	8~32 GB
<b>External DRAM</b>	No	-	-	No	No	No	No
<b>Max. R/W Performance (MB/sec)</b>	560/515	43/41	90/80	60/65	115/80	260/125	41/25
<b>Standard Operating Temp. (°C)</b>	0 ~ +70	-	-25 ~ +85	0 ~ +70	0 ~ +70	0 ~ +70	0 ~ +70
<b>Wide Temp. (°C)</b>	-40 ~ +85	-40 ~ +85	-40 ~ +85	-40 ~ +85	-40 ~ +85	-40 ~ +85 *Not supported on 16GB	-40 ~ +85
<b>MTBF (Hours)</b>	>3,000,000	>3,000,000	>3,000,000	>2,000,000	>3,000,000	>3,000,000	>3,000,000
<b>Recommended Applications</b>	Factory Machine Controller	Robot, Semiconductor Manufacturing Equipment, Inspection equipment		Semiconductor Manufacturing Equipment, Factory Machine Controller		Welding, Solar Energy, Charging, Farming Ventilation	

# Recommended Industrial DRAM Solutions



Module Type	UDIMM	SODIMM	ECC UDIMM	ECC SODIMM	UDIMM	SODIMM	ECC UDIMM	ECC SODIMM
<b>Memory Technology</b>	DDR4	DDR4	DDR4	DDR4	DDR5	DDR5	DDR5	DDR5
<b>Frequency</b>	2133/2400/2666/2933/3200						4800	
<b>Density</b>	2GB/4GB/8GB/16GB/32GB		4GB/8GB/16GB/32GB		8GB / 16GB / 32GB		16GB / 32GB	
<b>Voltage</b>	1.2v	1.2v	1.2v	1.2v	1.1V	1.1V	1.1V	1.1V
<b>Pin Count</b>	288-Pin	260-Pin	288-Pin	260-Pin	288-Pin	262-Pin	288-Pin	262-Pin
<b>Width</b>	64-Bit	64-Bit	72-Bit	72-Bit	64-Bit	64-Bit	72-Bit	72-Bit
<b>PCB Height</b>	1.23"	1.18"	1.23"	1.18"	1.23"	1.18"	1.23"	1.18"
<b>Operation / Wide Temperature. (°C)</b>	TC=0 to 85 / -40 to 85	TC=0 to 85 / -40 to 85	TC=0 to 85 / -40 to 85	TC=0 to 85 / -40 to 85	TC=0 to 85	TC=0 to 85	TC=0 to 85	TC=0 to 85
<b>Value-added Technology</b>								

\*Optional