



# PAC Storage GS 3025A All Flash Arrays

## Lightning Speed High Density Storage

*All-flash arrays enable faster data transfer as an SSD runs at up to 500 times the speed of a traditional HDD and therefore can meet the high IOPS and low latency demand by data centers and high-speed transactional applications, such as database, VDI and VSI. High-Performance Computing with demanding requirements is also increasingly adopting all-flash arrays for their blazing speed performance.*

### HIGHLIGHT

#### Superior Performance

- 700K IOPS of random read performance and under 0.5 millisecond response time
- Optimized small block size I/O SSD Optimization
- Monitoring of SSD S.M.A.R.T. information

#### High Availability

- Symmetric active-active controllers
- Automatically reconnected I/O during path failure

#### Cloud Integrated Unified Storage

- Unified storage incorporating block, file and object
- Easy and cost-effective integration with cloud

#### PAC Storage all flash arrays

Delivering 700K IOPS performance and less than 0.5 millisecond latency, PAC GS All Flash Arrays bring you superior performance, extreme efficiency, SSD optimization, security and cloud integration.

#### Superior Performance

Built specifically to meet the demand for high-speed data transfer, PAC GS All Flash Arrays deliver more than 700K IOPS of random read performance and under 0.5 millisecond response time.

The firmware is designed to optimize performance for random I/O access, targeting virtualization and database applications. Organizations can benefit from improved speed and responsiveness of their applications and therefore maximize their operation efficiency and customer satisfaction.

#### SSD Optimization

To free up SSD blocks, the system avoids initializing large extents of the disks with zeros when provisioning a pool and translates the file system's UNMAP command to inform SSDs to reclaim the space previously occupied. This enables an accurate report of space consumption and forecast of new storage requirements. The system also reduces the number of program/erase cycles, thereby extending SSD lifespan, lowering latency and raising performance.

Supporting S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology), PAC GS All Flash Arrays monitor SSD conditions to anticipate and prevent failures. When the system detects an SSD failure, a spare disk will immediately take its place to minimize the risk during data rebuild. SSD remaining life is displayed on the management utility so that users can plan ahead to replace those SSDs with their write cycles approaching the limit.

#### High Availability

PAC Storage GS All Flash Arrays support symmetric active-active controller configuration to minimize administrative effort and boost operation efficiency. Hosts can access the same LUNs simultaneously via both controllers. I/O are more equally distributed across both controllers and all paths, effectively minimizing costly path management time. In the event of a path failure, I/O can automatically continue through the remaining paths with little or no failover.

#### Cloud Integrated Unified Storage

PAC Storage GS All Flash Arrays offer unified storage solutions that incorporate full-featured NAS and SAN with enterprise level data services and RAID protection. Moreover, with the option of cloud integration, PAC GS All Flash Arrays allow SMBs and SMEs running local SAN/NAS applications to easily and cost-effectively integrate and expand their storage architecture into cloud services.

Model name **GS 3025RA**  
**GS 3025RTA**

**Hardware Specifications (per Array)**

Form factor	2U 25-bay	
CPU	2 x Intel Broadwell-DE 4 Core/6 Core	
Storage controller	Dual-redundant	
Cache Backup Techniques	Super capacitor + Flash module	
Max. Drives	375 ( Max 14 JBOD)	
Cache memory <sup>1</sup>	16GB, 32GB, 64GB, 128GB, 256GB	
SAS expansion ports	4 x 12Gb/s SAS wide port	
Max. Channel Ports	24	
Max. Number Of Host Board	4	
Onboard ports	2 x 10 Gb iSCSI (RJ-45) + 4 x 1 Gb iSCSI (RJ-45)	
Host Board	2 x 16 Gb/s FC	4 x 16 Gb/s FC
	4 x 1 GbE/iSCSI	2 x 56 Gb/s InfiniBand <sup>5</sup>
Host Board	2 x 10 GbE/iSCSI (SFP+)	2 x 40 GbE/ iSCSI
	2 x 10 GbE/iSCSI (RJ-45)	Converged Host Ports <sup>6</sup>
	2 x 12Gb/s SAS	

**Software Features**

RAID Options	RAID 0, 1 (0+1), 3, 5, 6, 10, 30, 50, 60
Protocol Support	CIFS/SMB: Version 2.0/3.0, NFS: Version 2/3/4, AFP, FTP, WebDAV, Openstack Swift
Cloud Gateway	Support the integration with following cloud providers: Amazon S3, Microsoft Azure, Google Cloud Platform, Alibaba AliCloud
Green Design	• 80 PLUS power supplies delivering more than 80% energy efficiency
Regulatory	• Electromagnetic Compatibility: CE, BSMI, FCC, KC • Safety: UL, BSMI, CB, EAC

**Physical Specifications**

Rack Support	2U, 19-inch rackmount
Expansion Enclosure (JBOD)	JB 3025B
Supported Drives <sup>2</sup>	2.5" SATA/ SAS SSD
Redundant Power Supply Unit <sup>3</sup>	Power supply: Two redundant 530W; Voltage and Frequency: 100-240 Vac, 50-60Hz
Dimensions <sup>4</sup>	447mm (W) x 88mm (H) x 501mm (D)
Package Dimensions	780mm (W) x 340mm (H) x 588mm (D)

1. Default: DDR4 4GBx2 with ECC per controller  
 2. The converged board supports 8 Gb/s FC (4 ports), 16 Gb/s FC (2 ports), 10Gb/s iSCSI (4 ports), and 10 GbE, FCoE (4 ports). The protocol configurations are interchangeable for unlimited times.  
 3. Power is also supplied in redundant mode, allowing full operation with half the resources.  
 4. Without chassis ears/ protrusions  
 5. For Linux only, block level only.  
 6. For the latest compatibility details, refer to our official website for the latest PAC Storage GS Compatibility Matrix.

**Data Service & Support**

Local Replication <sup>1</sup> <small>(Standard license is included by default and advanced is an optional license)</small>	Snapshot	Snapshot images per source volume Snapshot images per system	Standard License: 64 / Advanced License: 256 Standard License: 128 / Advanced License: 4096
	Volume Copy/Mirror	Source volumes per system Replication pairs per source volume Replication pairs per system	Standard License: 16 / Advanced License: 32 Standard License: 4 / Advanced License: 8 Standard License: 64 / Advanced License: 256
Thin Provisioning (default included)	" Just-in-time" capacity allocation optimizes storage utilization and eliminates allocated but unused storage space		
Self-encrypting drives	Unique factory encryption secures data plus makes deletion simple and complete		
Remote Replication (Block level) <sup>1</sup>	Replication per source volume: 16	Replication pairs per source volume: 4	Replication pairs per system: 64
Remote Replication (File Level)	Rsync with 128-bit SSH encryption between PAC Storage GS		
Cloud-integrated Solution <sup>1</sup>	• Cloud Cache    • Cloud Tiering    • Cloud Backup		
Access right management	• User account management    • Group management • Folder management - folder access control • Quota management    • Integration with Window sAD and LDAP		
Availability and Reliability	• Redundant, hot-swappable hardware modules    • CacheSafe technology    • Multi-pathing support • Trunk group support    • Device mapper support    • UPS • WORM <sub>3</sub>		
Management	• Web-based EonOne management software • Automated cache flush and caching mode operation per enclosure status • Module status LED indicators: component presence detection & thermal sensors via I2C bus • Storage Resource Management to analyze history records of resource usage • Automate repeatable management tasks by flexible workflow		
Notification Applications	Email, SNMP traps • File explorer    • Proxy server    • Syslog server    • VPN server    • SyncCloud    • LDAP server		
OS support	Microsoft Windows Server 2008 / 2008 R2 / 2012 / 2012 R2 , Microsoft Windows Hyper-V, Red Hat Enterprise, Linux, SUSE Linux Enterprise, Sun Solaris, Mac OS X, VMware, Citrix XenServer, OpenStack Cinder		
Service and support	Standard Service	<b>3-year limited hardware warranty and 8x5 phone, web, and email support</b>	
	Upgrade/extension options	Replacement part dispatch on the next business day (up to 10 years) Advanced service: 24x7 phone, web and email support on the next business day (up to 10 years) Premium service: 24x7 phone, web and email support Extended standard service up to 10 years	
	Service Center	Request Support, Knowledge Base, Download Center, Licensing Service, and News	

<sup>1</sup> Optional    <sup>2</sup> Available with Standard license and optional advanced license    <sup>3</sup> For file level only.

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