



## QSAN Flash Storage

# XF5 Series

Performance-Oriented All NVMe Flash Storage for Demanding Workload

### Key Benefits

#### Unparalleled Performance

- 100% NVMe 2U26 high density architecture
- Onboard 25 GbE iSCSI and flexible high-speed I/O expansion

#### Enterprise Reliability

- 99.9999% high availability with mirrored firmware architecture and overall modular design performs no single point of failure
- Never lose any data at cache-to-flash memory protection solution
- Non-disruptive firmware upgrade and backup appliance reach zero downtime

#### Effortless Management

- Simplify the steps of upgrading and replacing system components with modular hardware design
- XEVO - the operating system for flash storage reduces learning and maintenance efforts through our innovative interface design
- Support RESTful API, SNMP, and emailing for external management or use QSAN XInsight, smarter data management with simplified platform and intelligent engine

### Presenting Lightning-Fast Performance for Enterprises

QSAN XF5 series is the premier enterprise-level all-NVMe flash storage solution with unparalleled speed. With  $\mu$ s-level latency, it excels in meeting the responsiveness needs of the most challenging enterprise applications. The XF5 is ideal for modern applications including AI model training, real-time database, HPC (High-Performance Computing), and high-speed backup alike.

#### Accelerate Your Business with Sub-100 $\mu$ s Latency

The XF5 series features an NVMe SSD architecture designed to ensure consistent response times, prioritizing steady performance instead of occasional peak throughput. Tailored for enterprise high-performance computing infrastructures, it delivers high IOPS with latency at the microsecond level. With minimal latency concerns, applications are shielded from slowdowns or halts caused by high response times. Matching with the RDMA technology, XF5 can mostly eliminate the latency when accessing data from the host to the drive.

#### Always-on for Business

XF5 is equipped with mirrored firmware architecture, built-in hot-swappable, and fully redundant hardware design, streamlining maintenance and upgrades. Its dual active controllers operate, and online firmware upgrades deliver seamless storage services in real-time, guaranteeing uninterrupted service delivery with zero downtime.

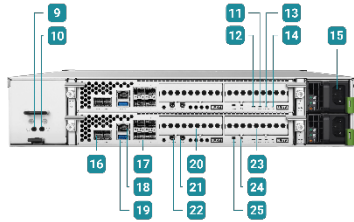
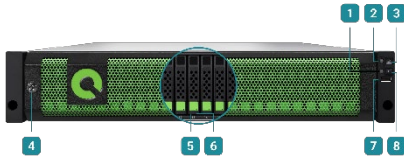
#### Sweatless Management Experience

XEVO, the flash-based storage management system, excels in efficiency, ensuring data access within just 5 minutes of initial storage deployment. Its intuitive dashboard and robust reporting system enable managers to analyze business usage and monitor storage status in real-time. Furthermore, external management functionalities like RESTful API, SNMP, and email notifications provide managers with holistic system oversight, empowering them to make informed decisions.

#### Reduce Business Overhead through Data Reduction

Equipped with advanced data reduction capabilities, including deduplication and compression, the XF5 offers unparalleled efficiency, allowing businesses to significantly reduce overhead costs.

## Appearance



1. Enclosure Status LED
2. Enclosure Access LED
3. Enclosure Power Button / LED
4. Bezel Lock
5. Disk Drive Status LED
6. Disk Drive Power LED
7. USB Port
8. UID (Unique Identifier) Button / LED
9. Cache-to-Flash Module Power LED
10. Cache-to-Flash Module Status LED
11. Master / Slave LED (only for dual controllers)
12. Controller Status LED
13. Dirty Cache LED
14. UID (Unique Identifier) LED
15. Power Supply Unit
16. 12 Gb/s SAS Wide Port
17. 25 GbE LAN Port
18. 2.5 GbE LAN Port (Management Port)
19. USB Port
20. Host Card Slot 1 (host card is an optional part)
21. Service Port
22. Console Port
23. Host Card Slot 2 (host card is an optional part)
24. Reset to Factory Default Button
25. Buzzer Mute Button

## System Specification

Model Name	XF5226D-12C	XF5226S-12C
Architecture	Dual-active controller	Single-upgradable controller
<b>CPU</b>		
Processor	Intel® Xeon® 12-core x 2	Intel® Xeon® 12-core
<b>Memory</b>		
Memory Module Pre-installed	32 GB DDR4 RDIMM	16 GB DDR4 RDIMM
Total Memory Slots	16	8
Memory Expandable up to	2,048 GB	1,024 GB
<b>Storage</b>		
Drive Bays	2.5" Slot x 26	
Maximum Drive Bays with Expansion Unit	546	
Compatible Drive Type	2.5" dual-port U.2 NVMe SSD 2.5" SAS SSD (for expansion units) 3.5" SAS HDD (for expansion units)	2.5" single-port U.2 NVMe SSD 2.5" SAS SSD (for expansion units) 3.5" SAS HDD (for expansion units)
Drive Interface	U.2 NVMe (PCIe Gen 4x4) SAS 12 Gb/s (for expansion units)	
Maximum Internal Raw Capacity	798 TB	
Maximum Raw Capacity with Expansion	16,773 TB	
Hot Swappable Drive	Yes	
<b>Connectivity Port</b>		
PCIe Expansion	(Gen 4x8 Slot) x 4	(Gen 4x8 Slot) x 2
2.5 GbE RJ45 LAN Port	2 (onboard management port)	1 (onboard management port)
10 GbE SFP+ LAN Port	2 (option) / 4 (option)	
10 GbE RJ45 LAN Port	2 (option) / 4 (option)	
25 GbE SFP28 LAN Port	8 (onboard) / 2 (option) / 4 (option)	4 (onboard) / 2 (option) / 4 (option)
16 Gb SFP+ Fibre Channel	2 (option) / 4 (option)	
32 Gb SFP28 Fibre Channel	2 (option) / 4 (option)	
<b>Expansion and External Port</b>		
12 Gb/s SAS Wide Port	4 (onboard)	2 (onboard)
USB Port	1 (front) / 2 (rear)	1 (front) / 1 (rear)
Others	Console Port x 2, Service Port x 2	Console Port x 1, Service Port x 1
<b>Software Specification</b>		
Storage OS	XEVO 3	
RAID Type	0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 50EE / 60EE	
Storage Efficiency	Thin provisioning / Deduplication* (option) / Compression* (option)	
Software Acceleration	SSD Cache / Auto tiering / RDMA	
Data Protection	Snapshot / Asynchronous / Synchronous (option)	
Security	SSL / iSCSI CHAP / ISE & SED	
Support Protocols	iSCSI / FCP / NVMe-oF	
Management	Web UI / RESTful API / S.E.S. / LCM	
<b>Appearance</b>		
Dimension (H x W x D) (mm)	88 x 438 x 573	
Net Weight (kg)	19.6	
Gross Weight (kg)	28.6	
<b>Others</b>		
Memory Protection	Cache-to-Flash Module (built-in)	
System Fan	8 pcs	4 pcs
Power Supply Unit	850 W x 2 (80 Plus Platinum)	
Power Consumption	812 W	
Certification	CE / FCC / BSMI	
Standard Warranty	System: 5 years Cache-to-Flash Module: 1 year	

\* The feature is still under developing, please contact QSAN for accurate release date.