QSAN Flash Storage

# XF3 Series

Professional NVMe Storage for General Block Environment

## Key Benefits

### Unparalleled Performance

- Onboard 10 GbE iSCSI and flexible high-speed I/O expansion

### Enterprise Reliability

- 99.9999% high availability with 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

## Powerful Performance with Optimized Cost

QSAN XF3 series is a cost-effective NVMe flash storage solution with the best balance of performance and cost. With µs-level latency, the XF3 assists enterprises in meeting the responsiveness needs of most enterprise applications. The XF3 is ideal for modern applications including cloud collaboration, large scale surveillance, and high-speed business backup alike.

## Accelerate Your Business with µs-Level Latency

The XF3 series features an NVMe SSD architecture 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, XF3 can mostly eliminate the latency when accessing data from the host to the drive.

## Always-on for Business

XF3 is equipped with 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.
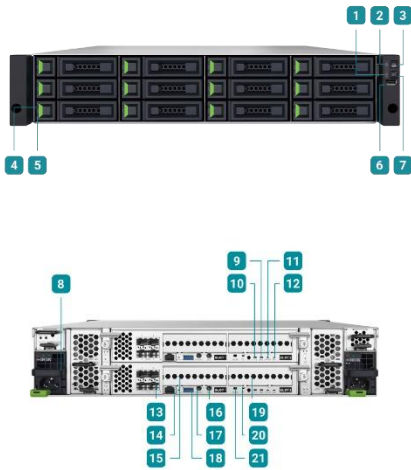
## Sweatless Management Experience

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 XF3 offers unparalleled efficiency, allowing businesses to significantly reduce overhead costs.

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## Appearance





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

## System Specification

| Model Name | XF3212D-4C | XF3212S-4C |
|---|---|---|
| Architecture | Dual-active controller | Single-upgradable controller |
| **CPU** | | |
| Processor | Intel® Xeon® 4-core x 2 | Intel® Xeon® 4-core |
| **Memory** | | |
| Memory Module Pre-installed | 16 GB DDR4 RDIMM | 8 GB DDR4 RDIMM |
| Total Memory Slots | 8 | 4 |
| Memory Expandable up to | 512 GB | 256 GB |
| **Storage** | | |
| Drive Bays | 3.5" Slot x 12 | |
| Compatible Drive Type | 2.5" dual-port U.2 NVMe SSD | 2.5" single-port U.2 NVMe SSD |
| Drive Interface | U.2 NVMe (PCIe Gen 4) | |
| Maximum Internal Raw Capacity | 368 TB | |
| Hot Swappable Drive | Yes | |
| **Connectivity Port** | | |
| PCIe Expansion | (Gen 3x8 Slot) x 4 | (Gen 3x8 Slot) x 2 |
| 2.5 GbE RJ45 LAN Port | 2 (onboard management port) | 1 (onboard management port) |
| 10 GbE SFP+ LAN Port | 8 (onboard) / 2 (option) / 4 (option) | 4 (onboard) / 2 (option) / 4 (option) |
| 10 GbE RJ45 LAN Port | 2 (option) / 4 (option) | |
| 25 GbE SFP28 LAN Port | 2 (option) / 4 (option) | |
| 100 GbE QSFP LAN Port | 2 (option) | |
| 16 Gb SFP+ Fibre Channel | 2 (option) / 4 (option) | |
| 32 Gb SFP28 Fibre Channel | 2 (option) / 4 (option) | |
| **Expansion and External Port** | | |
| 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 |
| **Software Specification** | | |
| Storage OS | XEVO 3 | |
| RAID Type | 0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 50EE / 60EE | |
| Storage Efficiency | Thin provisioning / Compression and Deduplication (option) | |
| Software Acceleration | SSD Cache / Auto tiering / RDMA | |
| Data Protection | Snapshot / Asynchronous / Synchronous (option) | |
| Security | SSL / SSH / iSCSI CHAP / ISE & SED | |
| Support Protocols | iSCSI / FCP / NVMe-oF | |
| Management | Web UI / RESTful API / S.E.S. / LCM | |
| **Appearance** | | |
| Dimension (H x W x D) (mm) | 88 x 438 x 515 | |
| Net Weight (kg) | 16.3 | |
| Gross Weight (kg) | 18.6 | |
| **Others** | | |
| Memory Protection | Cache-to-Flash Module (option) | |
| System Fan | 4 pcs | |
| Power Supply Unit | 850 W x 2 (80 Plus Platinum) | |
| Power Input | 100 - 240 VAC, 50/60 Hz | |
| Power Consumption | 407 W / 1,389 BTU | |
| Certification | CE / FCC / BSMI | |
| Standard Warranty | System: 3 years<br>Cache-to-Flash Module: 1 year | |