

# **QSAN Unified Storage**

# **XN3 Series**

Professional NVMe Unified Storage for General Purpose

# **Key Benefits**

#### **Unparalleled Performance**

 Onboard 10 GbE LAN port and flexible highspeed 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
- QSM the operation 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 XN3 series is a cost-effective NVMe flash storage solution with the best balance of performance and cost. With µs-level latency, the XN3 assists enterprises in meeting the responsiveness needs of most enterprise applications. The XN3 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 XN3 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, XN3 can mostly eliminate the latency when accessing data from the host to the drive.

#### **Always-on for Business**

XN3 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**

QSM continuously evolves security levels to protect data across storage and adhere to industry best practices. Supporting SED (Self-Encrypting Drives) coupled with WORM (Write Once Read Many) will keep your sensitive data safe even if the drives are lost, stolen, or misplaced. Additionally, Windows ACL (Access Control List) and RBAC (Role-Based Access Control) help to prevent unauthorized access to your data.

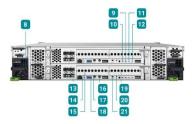
#### **Reduce Business Overhead through Data Reduction**

Equipped with advanced data reduction capabilities, including deduplication and compression, the XN3 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. 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
- 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	XN3212D-4C	XN3212S-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 Storage	012 05	200 05
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 (PCle Gen 4)	2.5 Single port o.2 ivvivie 35b
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)	1 (onboard)
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)	r (enseara), z (epiteri), r (epiteri)
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	(-1 /- (-1 /	
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
Caferrara Caracification	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
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Software Specification Storage OS	OSM 4	
Storage OS	QSM 4 0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 9	50EE / 60EE
Storage OS RAID Type	0/1/5/6/10/50/60/5EE/6EE/	
Storage OS	0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 5 Thin provisioning / Compression and D	
Storage OS RAID Type Storage Efficiency	0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 5  Thin provisioning / Compression and D  SSD cache / Auto tiering / RDMA	eduplication (option)
Storage OS RAID Type Storage Efficiency Software Acceleration	0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 5EE /	eduplication (option)  us (option)
Storage OS RAID Type Storage Efficiency Software Acceleration Data Protection	0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 5E Thin provisioning / Compression and D SSD cache / Auto tiering / RDMA Snapshot / Asynchronous / Synchronoi Rsync / S3 backup / Cloud backup / XN	eduplication (option)  us (option)
Storage OS RAID Type Storage Efficiency Software Acceleration Data Protection Backup Service	0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 5E Thin provisioning / Compression and D SSD cache / Auto tiering / RDMA Snapshot / Asynchronous / Synchronoi Rsync / S3 backup / Cloud backup / XN	eduplication (option)  us (option)  firror* / Microsoft 365 email backup  VORM / RBAC / Windows ACL / Antivirus
Storage OS RAID Type Storage Efficiency Software Acceleration Data Protection Backup Service Security	0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 5 Thin provisioning / Compression and D SSD cache / Auto tiering / RDMA Snapshot / Asynchronous / Synchronou Rsync / S3 backup / Cloud backup / XM SSL / SSH / ISCSI CHAP / ISE & SED / W	us (option)  dirror* / Microsoft 365 email backup  VORM / RBAC / Windows ACL / Antivirus  CP / NVMe-oF
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Storage OS  RAID Type  Storage Efficiency  Software Acceleration  Data Protection  Backup Service  Security  Support Protocols  Management  Appearance	0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 5 Thin provisioning / Compression and D SSD cache / Auto tiering / RDMA Snapshot / Asynchronous / Synchronou Rsync / S3 backup / Cloud backup / XM SSL / SSH / ISCSI CHAP / ISE & SED / V	us (option)  dirror* / Microsoft 365 email backup  VORM / RBAC / Windows ACL / Antivirus  CP / NVMe-oF
Storage OS  RAID Type  Storage Efficiency  Software Acceleration  Data Protection  Backup Service  Security  Support Protocols  Management  Appearance  Dimension (H x W x D) (mm)	0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 3EE / 5EE / 5EE / Thin provisioning / Compression and D SSD cache / Auto tiering / RDMA Snapshot / Asynchronous / Synchronous Rsync / S3 backup / Cloud backup / XN SSL / SSH / iSCSI CHAP / ISE & SED / V CIFS / NFS / FTP / WebDAV / iSCSI / FU Web UI / Window AD / LDAP / RESTful	us (option)  dirror* / Microsoft 365 email backup  VORM / RBAC / Windows ACL / Antivirus  CP / NVMe-oF
Storage OS  RAID Type  Storage Efficiency  Software Acceleration  Data Protection  Backup Service  Security  Support Protocols  Management  Appearance	0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 3EE / 5EE / 5EE / Thin provisioning / Compression and D SSD cache / Auto tiering / RDMA Snapshot / Asynchronous / Synchronous Rsync / S3 backup / Cloud backup / XN SSL / SSH / iSCSI CHAP / ISE & SED / V CIFS / NFS / FTP / WebDAV / iSCSI / FI Web UI / Window AD / LDAP / RESTful 88 x 438 x 515	us (option)  dirror* / Microsoft 365 email backup  VORM / RBAC / Windows ACL / Antivirus  CP / NVMe-oF
Storage OS  RAID Type  Storage Efficiency  Software Acceleration  Data Protection  Backup Service  Security  Support Protocols  Management  Appearance  Dimension (H x W x D) (mm)  Net Weight (kg)	0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 3EE / 5EE / 5EE / Thin provisioning / Compression and D SSD cache / Auto tiering / RDMA Snapshot / Asynchronous / Synchronous / Synchronous Rsync / S3 backup / Cloud backup / XN SSL / SSH / iSCSI CHAP / ISE & SED / V CIFS / NFS / FTP / WebDAV / iSCSI / Ft Web UI / Window AD / LDAP / RESTful 88 x 438 x 515 16.3	us (option)  dirror* / Microsoft 365 email backup  VORM / RBAC / Windows ACL / Antivirus  CP / NVMe-oF
Storage OS RAID Type Storage Efficiency Software Acceleration Data Protection Backup Service Security Support Protocols Management Appearance Dimension (H x W x D) (mm) Net Weight (kg) Gross Weight (kg)	0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 3EE / 5EE / 5EE / Thin provisioning / Compression and D SSD cache / Auto tiering / RDMA Snapshot / Asynchronous / Synchronous / Synchronous Rsync / S3 backup / Cloud backup / XN SSL / SSH / iSCSI CHAP / ISE & SED / V CIFS / NFS / FTP / WebDAV / iSCSI / Ft Web UI / Window AD / LDAP / RESTful 88 x 438 x 515 16.3	us (option)  dirror* / Microsoft 365 email backup  VORM / RBAC / Windows ACL / Antivirus  CP / NVMe-oF
Storage OS  RAID Type  Storage Efficiency  Software Acceleration  Data Protection  Backup Service  Security  Support Protocols  Management  Appearance  Dimension (H x W x D) (mm)  Net Weight (kg)  Gross Weight (kg)  Others	0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 8EE /	us (option)  dirror* / Microsoft 365 email backup  VORM / RBAC / Windows ACL / Antivirus  CP / NVMe-oF
Storage OS  RAID Type  Storage Efficiency  Software Acceleration  Data Protection  Backup Service  Security  Support Protocols  Management  Appearance  Dimension (H x W x D) (mm)  Net Weight (kg)  Gross Weight (kg)  Others  Memory Protection	0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 1 Thin provisioning / Compression and D SSD cache / Auto tiering / RDMA Snapshot / Asynchronous / Synchronou Rsync / S3 backup / Cloud backup / XN SSL / SSH / iSCSI CHAP / ISE & SED / V CIFS / NFS / FTP / WebDAV / iSCSI / Ft Web UI / Window AD / LDAP / RESTful  88 x 438 x 515 16.3 18.6 Cache-to-Flash Module (option)	us (option)  dirror* / Microsoft 365 email backup  VORM / RBAC / Windows ACL / Antivirus  CP / NVMe-oF
Storage OS  RAID Type  Storage Efficiency  Software Acceleration  Data Protection  Backup Service  Security  Support Protocols  Management  Appearance  Dimension (H x W x D) (mm)  Net Weight (kg)  Gross Weight (kg)  Others  Memory Protection  System Fan	0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 17 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 18 / 17 / 18 / 18 / 18 / 18 / 18 / 18	us (option)  dirror* / Microsoft 365 email backup  VORM / RBAC / Windows ACL / Antivirus  CP / NVMe-oF
Storage OS  RAID Type  Storage Efficiency  Software Acceleration  Data Protection  Backup Service  Security  Support Protocols  Management  Appearance  Dimension (H x W x D) (mm)  Net Weight (kg)  Gross Weight (kg)  Others  Memory Protection  System Fan  Power Supply Unit	0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 17 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 18 / 17 / 18 / 18 / 18 / 18 / 18 / 18	us (option)  dirror* / Microsoft 365 email backup  VORM / RBAC / Windows ACL / Antivirus  CP / NVMe-oF
Storage OS RAID Type Storage Efficiency Software Acceleration Data Protection Backup Service Security Support Protocols Management Appearance Dimension (H x W x D) (mm) Net Weight (kg) Gross Weight (kg) Others Memory Protection System Fan Power Supply Unit Power Input	0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 17 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 18 / 17 / 18 / 18 / 18 / 18 / 18 / 18	us (option)  dirror* / Microsoft 365 email backup  VORM / RBAC / Windows ACL / Antivirus  CP / NVMe-oF

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