Data Sheet



QSAN Unified Storage

XN3 Series

Professional NVMe Unified Storage for General Purpose

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 μ s-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.

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



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

Madal Nama	VN2010D 40	VN20100 40
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		
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)	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)	
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)
USB Port Others	1 (front) / 2 (rear) Console Port x 2, Service Port x 2	1 (front) / 1 (rear) Console Port x 1, Service Port x 1
Others		
Others Software Specification	Console Port x 2, Service Port x 2	Console Port x 1, Service Port x 1
Others Software Specification Storage OS	Console Port x 2, Service Port x 2 QSM 4	Console Port x 1, Service Port x 1 EE / 60EE
Others Software Specification Storage OS RAID Type	Console Port x 2, Service Port x 2 QSM 4 0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 50	Console Port x 1, Service Port x 1 EE / 60EE
Others Software Specification Storage OS RAID Type Storage Efficiency	Console Port x 2, Service Port x 2 QSM 4 0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 50 Thin provisioning / Compression and Dec	Console Port x 1, Service Port x 1 EE / 60EE duplication (option)
Others Software Specification Storage OS RAID Type Storage Efficiency Software Acceleration	Console Port x 2, Service Port x 2 QSM 4 0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 50 Thin provisioning / Compression and Dec SSD cache / Auto tiering / RDMA	Console Port x 1, Service Port x 1 EE / 60EE duplication (option) (option)
Others Software Specification Storage OS RAID Type Storage Efficiency Software Acceleration Data Protection	Console Port x 2, Service Port x 2 QSM 4 0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 50 Thin provisioning / Compression and Dec SSD cache / Auto tiering / RDMA Snapshot / Asynchronous / Synchronous	Console Port x 1, Service Port x 1 EE / 60EE duplication (option) (option) ror* / Microsoft 365 email backup
Others Software Specification Storage OS RAID Type Storage Efficiency Software Acceleration Data Protection Backup Service	Console Port x 2, Service Port x 2 QSM 4 0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 50 Thin provisioning / Compression and Dec SSD cache / Auto tiering / RDMA Snapshot / Asynchronous / Synchronous Rsync / S3 backup / Cloud backup / XMit	Console Port x 1, Service Port x 1 EE / 60EE duplication (option) c (option) ror* / Microsoft 365 email backup DRM / RBAC / Windows ACL / Antivirus
Others Software Specification Storage OS RAID Type Storage Efficiency Software Acceleration Data Protection Backup Service Security	Console Port x 2, Service Port x 2 QSM 4 0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 50 Thin provisioning / Compression and Dec SSD cache / Auto tiering / RDMA Snapshot / Asynchronous / Synchronous Rsync / S3 backup / Cloud backup / XMii SSL / SSH / ISCSI CHAP / ISE & SED / W0	Console Port x 1, Service Port x 1 EE / 60EE duplication (option) c (option) ror* / Microsoft 365 email backup DRM / RBAC / Windows ACL / Antivirus 2 / NVMe-oF
Others Software Specification Storage OS RAID Type Storage Efficiency Software Acceleration Data Protection Backup Service Security Support Protocols	Console Port x 2, Service Port x 2 QSM 4 0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 50 Thin provisioning / Compression and Dec SSD cache / Auto tiering / RDMA Snapshot / Asynchronous / Synchronous Rsync / S3 backup / Cloud backup / XMii SSL / SSH / ISCSI CHAP / ISE & SED / WC CIFS / NFS / FTP / WebDAV / ISCSI / FCF	Console Port x 1, Service Port x 1 EE / 60EE duplication (option) c (option) ror* / Microsoft 365 email backup DRM / RBAC / Windows ACL / Antivirus 2 / NVMe-oF
Others Software Specification Storage OS RAID Type Storage Efficiency Software Acceleration Data Protection Backup Service Security Support Protocols Management	Console Port x 2, Service Port x 2 QSM 4 0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 50 Thin provisioning / Compression and Dec SSD cache / Auto tiering / RDMA Snapshot / Asynchronous / Synchronous Rsync / S3 backup / Cloud backup / XMii SSL / SSH / ISCSI CHAP / ISE & SED / WC CIFS / NFS / FTP / WebDAV / ISCSI / FCF	Console Port x 1, Service Port x 1 EE / 60EE duplication (option) c (option) ror* / Microsoft 365 email backup DRM / RBAC / Windows ACL / Antivirus 2 / NVMe-oF
Others Software Specification Storage OS RAID Type Storage Efficiency Software Acceleration Data Protection Backup Service Security Support Protocols Management Appearance	Console Port x 2, Service Port x 2 QSM 4 0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 50 Thin provisioning / Compression and Dec SSD cache / Auto tiering / RDMA Snapshot / Asynchronous / Synchronous Rsync / S3 backup / Cloud backup / XMii SSL / SSH / ISCSI CHAP / ISE & SED / W0 CIFS / NFS / FTP / WebDAV / ISCSI / FCf Web UI / Window AD / LDAP / RESTful A	Console Port x 1, Service Port x 1 EE / 60EE duplication (option) c (option) ror* / Microsoft 365 email backup DRM / RBAC / Windows ACL / Antivirus 2 / NVMe-oF
Others Software Specification Storage OS RAID Type Storage Efficiency Software Acceleration Data Protection Backup Service Security Support Protocols Management Appearance Dimension (H x W x D) (mm)	Console Port x 2, Service Port x 2 QSM 4 0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 50 Thin provisioning / Compression and Dec SSD cache / Auto tiering / RDMA Snapshot / Asynchronous / Synchronous Rsync / S3 backup / Cloud backup / XMii SSL / SSH / ISCSI CHAP / ISE & SED / W0 CIFS / NFS / FTP / WebDAV / ISCSI / FCI Web UI / Window AD / LDAP / RESTful A 88 x 438 x 515	Console Port x 1, Service Port x 1 EE / 60EE duplication (option) c (option) ror* / Microsoft 365 email backup DRM / RBAC / Windows ACL / Antivirus 2 / NVMe-oF
Others Software Specification 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)	Console Port x 2, Service Port x 2 QSM 4 0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 50 Thin provisioning / Compression and Dec SSD cache / Auto tiering / RDMA Snapshot / Asynchronous / Synchronous Rsync / S3 backup / Cloud backup / XMii SSL / SSH / ISCSI CHAP / ISE & SED / W0 CIFS / NFS / FTP / WebDAV / ISCSI / FCI Web UI / Window AD / LDAP / RESTful Al 88 x 438 x 515 16.3	Console Port x 1, Service Port x 1 EE / 60EE duplication (option) c (option) ror* / Microsoft 365 email backup DRM / RBAC / Windows ACL / Antivirus 2 / NVMe-oF
Others Software Specification 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)	Console Port x 2, Service Port x 2 QSM 4 0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 50 Thin provisioning / Compression and Dec SSD cache / Auto tiering / RDMA Snapshot / Asynchronous / Synchronous Rsync / S3 backup / Cloud backup / XMii SSL / SSH / ISCSI CHAP / ISE & SED / W0 CIFS / NFS / FTP / WebDAV / ISCSI / FCI Web UI / Window AD / LDAP / RESTful A 88 x 438 x 515 16.3	Console Port x 1, Service Port x 1 EE / 60EE duplication (option) c (option) ror* / Microsoft 365 email backup DRM / RBAC / Windows ACL / Antivirus 2 / NVMe-oF
Others Software Specification 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	Console Port x 2, Service Port x 2 QSM 4 0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 50 Thin provisioning / Compression and Dec SSD cache / Auto tiering / RDMA Snapshot / Asynchronous / Synchronous Rsync / S3 backup / Cloud backup / XMii SSL / SSH / iSCSI CHAP / ISE & SED / W0 CIFS / NFS / FTP / WebDAV / iSCSI / FCI Web UI / Window AD / LDAP / RESTful Al 88 x 438 x 515 16.3 18.6	Console Port x 1, Service Port x 1 EE / 60EE duplication (option) c (option) ror* / Microsoft 365 email backup DRM / RBAC / Windows ACL / Antivirus 2 / NVMe-oF
Others Software Specification 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	Console Port x 2, Service Port x 2 QSM 4 0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 50 Thin provisioning / Compression and Dec SSD cache / Auto tiering / RDMA Snapshot / Asynchronous / Synchronous Rsync / S3 backup / Cloud backup / XMii SSL / SSH / iSCSI CHAP / ISE & SED / W0 CIFS / NFS / FTP / WebDAV / iSCSI / FCP Web UI / Window AD / LDAP / RESTful Al 88 x 438 x 515 16.3 18.6 Cache-to-Flash Module (option)	Console Port x 1, Service Port x 1 EE / 60EE duplication (option) c (option) ror* / Microsoft 365 email backup DRM / RBAC / Windows ACL / Antivirus 2 / NVMe-oF
Others Software Specification 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) Others Memory Protection System Fan	Console Port x 2, Service Port x 2 QSM 4 0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 50 Thin provisioning / Compression and Dec SSD cache / Auto tiering / RDMA Snapshot / Asynchronous / Synchronous Rsync / S3 backup / Cloud backup / XMii SSL / SSH / iSCSI CHAP / ISE & SED / W0 CIFS / NFS / FTP / WebDAV / ISCSI / FCI Web UI / Window AD / LDAP / RESTful Al 88 x 438 x 515 16.3 18.6 Cache-to-Flash Module (option) 4 pcs	Console Port x 1, Service Port x 1 EE / 60EE duplication (option) c (option) ror* / Microsoft 365 email backup DRM / RBAC / Windows ACL / Antivirus 2 / NVMe-oF
Others Software Specification 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	Console Port x 2, Service Port x 2 QSM 4 0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 50 Thin provisioning / Compression and Dec SSD cache / Auto tiering / RDMA Snapshot / Asynchronous / Synchronous Rsync / S3 backup / Cloud backup / XMii SSL / SSH / iSCSI CHAP / ISE & SED / W0 CIFS / NFS / FTP / WebDAV / iSCSI / FCI Web UI / Window AD / LDAP / RESTful Al 88 x 438 x 515 16.3 18.6 Cache-to-Flash Module (option) 4 pcs 850 W x 2 (80 Plus Platinum)	Console Port x 1, Service Port x 1 EE / 60EE duplication (option) c (option) ror* / Microsoft 365 email backup DRM / RBAC / Windows ACL / Antivirus 2 / NVMe-oF
Others Software Specification 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	Console Port x 2, Service Port x 2 QSM 4 0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 50 Thin provisioning / Compression and Dec SSD cache / Auto tiering / RDMA Snapshot / Asynchronous / Synchronous Rsync / S3 backup / Cloud backup / XMii SSL / SSH / iSCSI CHAP / ISE & SED / W0 CIFS / NFS / FTP / WebDAV / iSCSI / FCP Web UI / Window AD / LDAP / RESTful Al 88 x 438 x 515 16.3 18.6 Cache-to-Flash Module (option) 4 pcs 850 W x 2 (80 Plus Platinum) 100 - 240 VAC, 50/60 Hz	Console Port x 1, Service Port x 1 EE / 60EE duplication (option) c (option) ror* / Microsoft 365 email backup DRM / RBAC / Windows ACL / Antivirus 2 / NVMe-oF
Others Software Specification 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 Consumption Certification	Console Port x 2, Service Port x 2 QSM 4 0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 50 Thin provisioning / Compression and Dec SSD cache / Auto tiering / RDMA Snapshot / Asynchronous / Synchronous Rsync / S3 backup / Cloud backup / XMii SSL / SSH / iSCSI CHAP / ISE & SED / W0 CIFS / NFS / FTP / WebDAV / iSCSI / FCP Web UI / Window AD / LDAP / RESTful Al 88 x 438 x 515 16.3 18.6 Cache-to-Flash Module (option) 4 pcs 850 W x 2 (80 Plus Platinum) 100 - 240 VAC, 50/60 Hz 407 W / 1,389 BTU	Console Port x 1, Service Port x 1 EE / 60EE duplication (option) c (option) ror* / Microsoft 365 email backup DRM / RBAC / Windows ACL / Antivirus 2 / NVMe-oF
Others Software Specification 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 Power Consumption	Console Port x 2, Service Port x 2 QSM 4 0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 50 Thin provisioning / Compression and Dec SSD cache / Auto tiering / RDMA Snapshot / Asynchronous / Synchronous Rsync / S3 backup / Cloud backup / XMii SSL / SSH / iSCSI CHAP / ISE & SED / W0 CIFS / NFS / FTP / WebDAV / iSCSI / FCP Web UI / Window AD / LDAP / RESTful Al 88 x 438 x 515 16.3 18.6 Cache-to-Flash Module (option) 4 pcs 850 W x 2 (80 Plus Platinum) 100 - 240 VAC, 50/60 Hz 407 W / 1,389 BTU CE / FCC / BSMI	Console Port x 1, Service Port x 1 EE / 60EE duplication (option) : (option) ror* / Microsoft 365 email backup DRM / RBAC / Windows ACL / Antivirus 2 / NVMe-oF

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

