

Data Sheet

QSAN Unified Storage

XCubeNXT 8100

Enterprise Unified Storage in Simplicity

Key Benefits

Modern Simplicity

- QSM storage management system minimizes the learning curve and eases maintenance through an intuitive GUI
- Fast setup and data can be accessed in 5 minutes after installation
- Multiple protocol support and cross QSAN platform replication

Dependable Data Experience

- 99.9999% high availability design with no single point of failure
- Cache-to-flash to protect cache data in power outage
- Non-disruptive firmware upgrade ensures continuous data service with zero downtime

Flexible Expansion

- Dual controller with built-in 4-port 10 GbE and maximum 26 host ports allows direct connection to multiple hosts without switches
- Outstanding scale-up capability up to 16.7 PB
- Wake-on-SAS allows you to remotely power on / off all cascaded XD expansion units for power saving

High-Performance Unified Storage for Enterprise Workloads

The XCubeNXT 8100 series is the newest generation for diverse workloads which demand more performance. Highly available and secure with multiple protocol and cross QSAN platform support, it is designed to be ideal for applications in mission-critical data centers, containerization, virtualization, or media environments. Plus, backed by a 5-year limited warranty for proven enterprise-grade reliability.

Proven Simplicity - "Set and Forget" Data Services

QSM, a storage management system with intuitive GUI designs, helps to save time in storage deployment considerably. It also delivers unified storage features including support for a range of multi protocols (CIFS, NFS, FTP, iSCSi, FCP, etc.), complete RAID level protection, RAID EE, thin provisioning, SSD cache, auto-tiering, compression, inline deduplication, and more. With the help of an intuitive dashboard, managers can monitor storage status in real time.

Secure Data and Secure Management

QSM continuously evolves security level 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) helps to prevent unauthorized access to your data.

High Availability and Enterprise Reliability

The XCubeNXT series is a proven high availability unified storage system with full redundancy. Its dual-active architecture and cache-to-flash technology ensure optimal performance and resilience in critical situations.

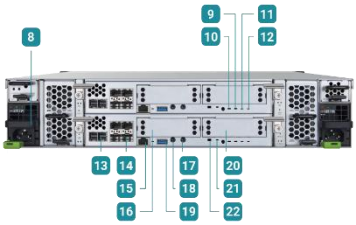
Flexible I/O Modules and Scale-up Capacity as Needed

Each controller has two host card slots that can be configured as iSCSI, Fibre Channel, or a mix of both besides built-in 4-port 10 GbE. As a result, the series offers great flexibility with built-in 8-port 10 GbE and up to 26 host ports in a dual-controller system. In addition, the XN8126 provides massive scale-up capabilities by connecting XCubeDAS or 3rd-party expansion units with up to 546 disk drives or 16.7 PB raw capacity for future data growth.

QSAN

Appearance





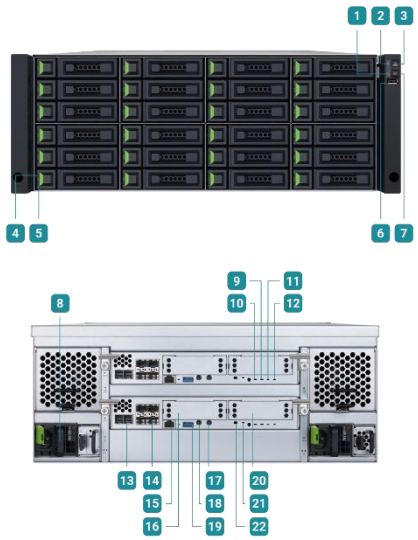
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13. 12 Gb/s SAS Wide Port
14. 10 GbE LAN Port
15. 1 GbE LAN Port
16. Host Card Slot 1 (host card is an optional part)
17. Service Port
18. Console Port
19. USB Port
20. Host Card Slot 2 (host card is an optional part)
21. Reset to Factory Default Button
22. Buzzer Mute Button

System Specification

Model Name	XN8126D	XN8126S
Architecture	Dual-active controller	Single-upgradable controller
CPU		
Processor	Intel® Xeon® 4-core x 2 (8-core model is also available)	Intel® Xeon® 4-core (8-core model is also available)
Memory		
Memory Module Pre-installed	32 GB DDR4 RDIMM	16 GB DDR4 RDIMM
Total Memory Slots	8	4
Memory Expandable up to	512 GB	256 GB
Storage		
Drive Bays	2.5" Slot x 26	
Maximum Drive Bays with Expansion Unit	650	
Compatible Drive Type	2.5" SAS, NL-SAS, SED HDD 2.5" SAS, SED SSD	2.5" SAS, NL-SAS, SED HDD 2.5" SATA HDD 2.5" SAS, SATA, SED SSD
Drive Interface	SAS 12 Gb/s	SAS 12 Gb/s, SATA 6 Gb/s
Maximum Internal Raw Capacity	798 TB	
Maximum Raw Capacity with Expansion	23,162 TB	
Hot Swappable Drive	Yes	
Connectivity Port		
PCIe Expansion	(Gen 3x8 Slot) x 4	(Gen 3x8 Slot) x 2
Max. 1 GbE LAN Port	2 (onboard)	1 (onboard)
Max. 10 GbE LAN Port	24 (8 onboard)	12 (4 onboard)
Max. 25 GbE LAN Port	16	8
Max. 100 GbE LAN Port	8	4
Max. 16 Gb Fibre Channel	16	8
Max. 32 Gb Fibre Channel	16	8
Max. 64 Gb Fibre Channel	16	8
Expansion and External Port		
12 Gb/s SAS Wide Port to SAS JBOD	4	2
10 / 25 / 100 GbE LAN Port to JBOF	Up to 4 JBOF	
USB Port	3	2
Console Port	2	1
Software Specification		
Storage OS	QSM 4	
RAID Type	0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 50EE / 60EE / QDP (Dynamic Pool)	
Storage Efficiency	Thin provisioning / QCompact (Compression and Deduplication) (option)	
Software Acceleration	SSD cache / Auto tiering / RDMA	
Data Protection	Snapshot / Asynchronous / Synchronous (option) / QMetro (option)	
Backup Service	Rsync / S3 backup / Cloud backup / XMirror / Microsoft 365 email backup	
Security	SSL / SSH / iSCSI CHAP / ISE & SED / WORM / RBAC / Windows ACL / Antivirus / QSeal (AirGap Backup)	
Support Protocol	CIFS / NFS / FTP / WebDAV / iSCSI / FCP / NVMe-oF	
Management	Web UI / Windows AD / LDAP / RESTful API / S.E.S. / LCM	
Appearance		
Dimension (H x W x D) (mm)	88 x 438 x 491	
Net Weight (kg)	16.3	
Gross Weight (kg)	18.6	
Others		
Memory Protection	Cache-to-Flash Module (Supercapacitor Module + 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	429 W / 1,464 BTU	
Certification	CE / FCC / BSMI	
Standard Warranty	System: 5 years Supercapacitor Module: 1 year	

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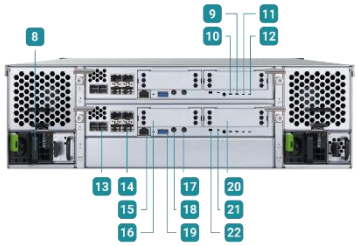
System Specification

Model Name	XN8124D	XN8124S
Architecture	Dual-active controller	Single-upgradable controller
CPU		
Processor	Intel® Xeon® 4-core x 2 (8-core model is also available)	Intel® Xeon® 4-core (8-core model is also available)
Memory		
Memory Module Pre-installed	32 GB DDR4 RDIMM	16 GB DDR4 RDIMM
Total Memory Slots	8	4
Memory Expandable up to	512 GB	256 GB
Storage		
Drive Bays	3.5" Slot x 24	
Maximum Drive Bays with Expansion Unit	648	
Compatible Drive Type	3.5" & 2.5" SAS, NL-SAS, SED HDD 2.5" SAS, SED SSD	3.5" & 2.5" SAS, NL-SAS, SED HDD 3.5" & 2.5" SATA HDD 2.5" SAS, SATA, SED SSD
Drive Interface	SAS 12 Gb/s	SAS 12 Gb/s, SATA 6 Gb/s
Maximum Internal Raw Capacity	624 TB	
Maximum Raw Capacity with Expansion	22,988 TB	
Hot Swappable Drive	Yes	
Connectivity Port		
PCIe Expansion	(Gen 3x8 Slot) x 4	(Gen 3x8 Slot) x 2
Max. 1 GbE LAN Port	2 (onboard)	1 (onboard)
Max. 10 GbE LAN Port	24 (8 onboard)	12 (4 onboard)
Max. 25 GbE LAN Port	16	8
Max. 100 GbE LAN Port	8	4
Max. 16 Gb Fibre Channel	16	8
Max. 32 Gb Fibre Channel	16	8
Max. 64 Gb Fibre Channel	16	8
Expansion and External Port		
12 Gb/s SAS Wide Port to SAS JBOD	4	2
10 / 25 / 100 GbE LAN Port to JBOF	Up to 4 JBOF	
USB Port	3	2
Console Port	2	1
Software Specification		
Storage OS	QSM 4	
RAID Type	0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 50EE / 60EE / QDP (Dynamic Pool)	
Storage Efficiency	Thin provisioning / QCompact (Compression and Deduplication) (option)	
Software Acceleration	SSD cache / Auto tiering / RDMA	
Data Protection	Snapshot / Asynchronous / Synchronous (option) / QMetro (option)	
Backup Service	Rsync / S3 backup / Cloud backup / XMirror / Microsoft 365 email backup	
Security	SSL / SSH / iSCSI CHAP / ISE & SED / WORM / RBAC / Windows ACL / Antivirus / QSeal (AirGap Backup)	
Support Protocol	CIFS / NFS / FTP / WebDAV / iSCSI / FCP / NVMe-oF	
Management	Web UI / Windows AD / LDAP / RESTful API / S.E.S. / LCM	
Appearance		
Dimension (H x W x D) (mm)	170.3 x 438 x 515	
Net Weight (kg)	25.9	
Gross Weight (kg)	28.3	
Others		
Memory Protection	Cache-to-Flash Module (Supercapacitor Module + 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	648 W / 2,211 BTU	
Certification	CE / FCC / BSMI	
Standard Warranty	System: 5 years Supercapacitor Module: 1 year	

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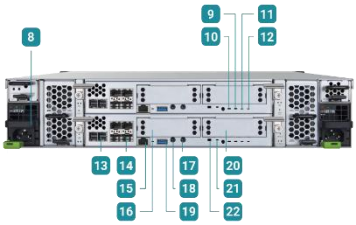
System Specification

Model Name	XN8116D	XN8116S
Architecture	Dual-active controller	Single-upgradable controller
CPU		
Processor	Intel® Xeon® 4-core x 2 (8-core model is also available)	Intel® Xeon® 4-core (8-core model is also available)
Memory		
Memory Module Pre-installed	32 GB DDR4 RDIMM	16 GB DDR4 RDIMM
Total Memory Slots	8	4
Memory Expandable up to	512 GB	256 GB
Storage		
Drive Bays	3.5" Slot x 16	
Maximum Drive Bays with Expansion Unit	640	
Compatible Drive Type	3.5" & 2.5" SAS, NL-SAS, SED HDD 2.5" SAS, SED SSD	3.5" & 2.5" SAS, NL-SAS, SED HDD 3.5" & 2.5" SATA HDD 2.5" SAS, SATA, SED SSD
Drive Interface	SAS 12 Gb/s	SAS 12 Gb/s, SATA 6 Gb/s
Maximum Internal Raw Capacity	416 TB	
Maximum Raw Capacity with Expansion	22,780 TB	
Hot Swappable Drive	Yes	
Connectivity Port		
PCIe Expansion	(Gen 3x8 Slot) x 4	(Gen 3x8 Slot) x 2
Max. 1 GbE LAN Port	2 (onboard)	1 (onboard)
Max. 10 GbE LAN Port	24 (8 onboard)	12 (4 onboard)
Max. 25 GbE LAN Port	16	8
Max. 100 GbE LAN Port	8	4
Max. 16 Gb Fibre Channel	16	8
Max. 32 Gb Fibre Channel	16	8
Max. 64 Gb Fibre Channel	16	8
Expansion and External Port		
12 Gb/s SAS Wide Port to SAS JBOD	4	2
10 / 25 / 100 GbE LAN Port to JBOF	Up to 4 JBOF	
USB Port	3	2
Console Port	2	1
Software Specification		
Storage OS	QSM 4	
RAID Type	0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 50EE / 60EE / QDP (Dynamic Pool)	
Storage Efficiency	Thin provisioning / QCompact (Compression and Deduplication) (option)	
Software Acceleration	SSD cache / Auto tiering / RDMA	
Data Protection	Snapshot / Asynchronous / Synchronous (option) / QMetro (option)	
Backup Service	Rsync / S3 backup / Cloud backup / XMirror / Microsoft 365 email backup	
Security	SSL / SSH / iSCSI CHAP / ISE & SED / WORM / RBAC / Windows ACL / Antivirus / QSeal (AirGap Backup)	
Support Protocol	CIFS / NFS / FTP / WebDAV / iSCSI / FCP / NVMe-oF	
Management	Web UI / Windows AD / LDAP / RESTful API / S.E.S. / LCM	
Appearance		
Dimension (H x W x D) (mm)	130.4 x 438 x 515	
Net Weight (kg)	21.7	
Gross Weight (kg)	24	
Others		
Memory Protection	Cache-to-Flash Module (Supercapacitor Module + 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	534 W / 1,822 BTU	
Certification	CE / FCC / BSMI	
Standard Warranty	System: 5 years Supercapacitor Module: 1 year	

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13. 12 Gb/s SAS Wide Port
14. 10 GbE LAN Port
15. 1 GbE LAN Port
16. Host Card Slot 1 (host card is an optional part)
17. Service Port
18. Console Port
19. USB Port
20. Host Card Slot 2 (host card is an optional part)
21. Reset to Factory Default Button
22. Buzzer Mute Button

System Specification

Model Name	XN8112D	XN8112S
Architecture	Dual-active controller	Single-upgradable controller
CPU		
Processor	Intel® Xeon® 4-core x 2 (8-core model is also available)	Intel® Xeon® 4-core (8-core model is also available)
Memory		
Memory Module Pre-installed	32 GB DDR4 RDIMM	16 GB DDR4 RDIMM
Total Memory Slots	8	4
Memory Expandable up to	512 GB	256 GB
Storage		
Drive Bays	3.5" Slot x 12	
Maximum Drive Bays with Expansion Unit	636	
Compatible Drive Type	3.5" & 2.5" SAS, NL-SAS, SED HDD 2.5" SAS, SED SSD	3.5" & 2.5" SAS, NL-SAS, SED HDD 3.5" & 2.5" SATA HDD 2.5" SAS, SATA, SED SSD
Drive Interface	SAS 12 Gb/s	SAS 12 Gb/s, SATA 6 Gb/s
Maximum Internal Raw Capacity	312 TB	
Maximum Raw Capacity with Expansion	22,676 TB	
Hot Swappable Drive	Yes	
Connectivity Port		
PCIe Expansion	(Gen 3x8 Slot) x 4	(Gen 3x8 Slot) x 2
Max. 1 GbE LAN Port	2 (onboard)	1 (onboard)
Max. 10 GbE LAN Port	24 (8 onboard)	12 (4 onboard)
Max. 25 GbE LAN Port	16	8
Max. 100 GbE LAN Port	8	4
Max. 16 Gb Fibre Channel	16	8
Max. 32 Gb Fibre Channel	16	8
Max. 64 Gb Fibre Channel	16	8
Expansion and External Port		
12 Gb/s SAS Wide Port to SAS JBOD	4	2
10 / 25 / 100 GbE LAN Port to JBOF	Up to 4 JBOF	
USB Port	3	2
Console Port	2	1
Software Specification		
Storage OS	QSM 4	
RAID Type	0 / 1 / 5 / 6 / 10 / 50 / 60 / 5EE / 6EE / 50EE / 60EE / QDP (Dynamic Pool)	
Storage Efficiency	Thin provisioning / QCompact (Compression and Deduplication) (option)	
Software Acceleration	SSD cache / Auto tiering / RDMA	
Data Protection	Snapshot / Asynchronous / Synchronous (option) / QMetro (option)	
Backup Service	Rsync / S3 backup / Cloud backup / XMirror / Microsoft 365 email backup	
Security	SSL / SSH / iSCSI CHAP / ISE & SED / WORM / RBAC / Windows ACL / Antivirus / QSeal (AirGap Backup)	
Support Protocol	CIFS / NFS / FTP / WebDAV / iSCSI / FCP / NVMe-oF	
Management	Web UI / Windows AD / LDAP / RESTful API / S.E.S. / LCM	
Appearance		
Dimension (H x W x D) (mm)	88 x 438 x 515	
Net Weight (kg)	16.4	
Gross Weight (kg)	18.8	
Others		
Memory Protection	Cache-to-Flash Module (Supercapacitor Module + 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: 5 years Supercapacitor Module: 1 year	

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