QSAN Unified Storage

XCubeNXT 5100

Value-Optimized Unified Storage for SMB

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 (SFP+) 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 XCubeDAS expansion units for power saving

Leading Density with Uncompromised Performance

The XCubeNXT 5100 series is the newest generation of XCubeNXT that harnesses industry-leading versatility for mixed workloads. Highly available and secure with multiple protocol and cross QSAN platform support, it is designed to be ideal for modern enterprise applications such as virtualization, containerization, surveillance, and backup. 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 decuplication, and more. With the help of an intuitive dashboard, managers can monitor storage status in real time.

Advanced Data Protection to Safeguard Assets

Built-in various backup methods such as snapshot, remote replication, rsync, cloud backup*, etc. to help you complete data backup and data integrity. In addition, a big leap forward, it can replicate to all QSAN storage platform to thoroughly protect your assets.

Secure Data and Secure Management

QSM continuously evolves our security level to protect data across storage and adhere to industry best practices. Supporting SED (Self-Encrypting Drives) coupled with WORM 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.
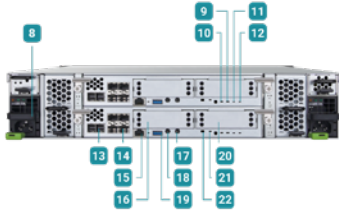
Flexible I/O Modules and Scale-up Capacity as Needed

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 iSCSI (SFP+). As a result, the series offers great flexibility with built-in 8-port 10 GbE iSCSI (SFP+) and up to 26 host ports in a dual-controller system. In addition, the XN5126 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.

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

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. 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
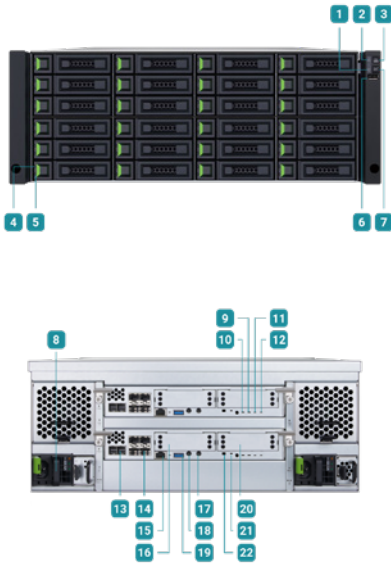22. Buzzer Mute Button

System Specification

Model Name	XN5126D	XN5126S
Architecture	Dual-active controller	Single-upgradeable controller
CPU		
Processor	Intel® Xeon® 64-bit 4-core	
Memory		
Memory Module Pre-installed	8 GB DDR4 ECC DIMM (per controller)	
Total Memory Slots	4 (per controller)	
Memory Expandable up to	256 GB (per controller)	
Storage		
Drive Bays	2.5" Slot x 26	
Maximum Drive Bays with Expansion Unit	546	
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(*) (*) SATA drives only work with single controller systems
Maximum Internal Raw Capacity	798 TB (calculate 30.72 TB SSD)	
Maximum Raw Capacity with Expansion Units	16,773 TB (calculate 30.72 TB SSD)	
Hot Swappable Drive	Yes	
Connectivity Port		
PCIe Expansion	(Gen 3x8 Slot) x 2	
1 GbE RJ45 LAN Port	1 (onboard per controller)	
10 GbE SFP+ LAN Port	4 (onboard per controller) / 4 (option)	
10 GbE RJ45 LAN Port	2 (option) / 4 (option)	
25 GbE SFP28 LAN Port	2 (option) / 4 (option)	
16 Gb SFP+ Fibre Channel*	2 (option) / 4 (option)	
32 Gb SFP28 Fibre Channel*	2 (option)	
Expansion and External Port		
12 Gb/s SAS Wide Port	2 (onboard per controller)	
USB Port	1 (front) / 2 (rear)	
Others	Console Port x 1, Service Port (UPS) x 1	
Software Specification		
Storage OS	QSM 4	
RAID Type	0 / 1 / 3 / 5 / 6 / 10 / 30 / 50 / 60 / 5EE / 6EE / 50EE / 60EE	
Storage Efficiency	Thin provisioning / Deduplication* (option) / Compression* (option)	
Software Acceleration	SSD cache / Auto tiering	
Data Protection	Snapshot / Asynchronous / Synchronous* (option)	
Backup Services	Rsync* / S3 backup* / Cloud sync* / XMirror*	
Security	SSL / SED / WORM / RBAC / Windows ACL	
Support Protocols	CIFS / NFS / FTP* / AFP* / iSCSI / FCP	
Management	Web UI / Window 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 (Supercapacitor Module + Flash Module) (option)	
System Fan	4 pcs	
Power Supply Unit	850 W x 2 (80 PLUS Platinum)	
Power Consumption	429 W	
Certification	CE / FCC / BSMI	
Standard Warranty	System: 5 years Supercapacitor Module: 1 year	

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Appearance

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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. 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
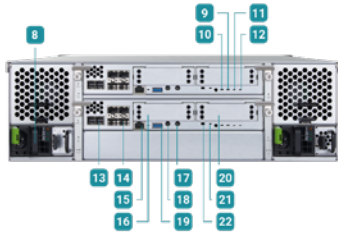22. Buzzer Mute Button

System Specification

Model Name	XN5124D	XN5124S
Architecture	Dual-active controller	Single-upgradeable controller
CPU		
Processor	Intel® Xeon® 64-bit 4-core	
Memory		
Memory Module Pre-installed	8 GB DDR4 ECC DIMM (per controller)	
Total Memory Slots	4 (per controller)	
Memory Expandable up to	256 GB (per controller)	
Storage		
Drive Bays	3.5" Slot x 24	
Maximum Drive Bays with Expansion Unit	504	
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(*) (*) SATA drives only work with single controller systems
Maximum Internal Raw Capacity	528 TB (calculate 22 TB HDD)	
Maximum Raw Capacity with Expansion Units	11,088 TB (calculate 22 TB HDD)	
Hot Swappable Drive	Yes	
Connectivity Port		
PCIe Expansion	(Gen 3x8 Slot) x 2	
1 GbE RJ45 LAN Port	1 (onboard per controller)	
10 GbE SFP+ LAN Port	4 (onboard per controller) / 4 (option)	
10 GbE RJ45 LAN Port	2 (option) / 4 (option)	
25 GbE SFP28 LAN Port	2 (option) / 4 (option)	
16 Gb SFP+ Fibre Channel*	2 (option) / 4 (option)	
32 Gb SFP28 Fibre Channel*	2 (option)	
Expansion and External Port		
12 Gb/s SAS Wide Port	2 (onboard per controller)	
USB Port	1 (front) / 2 (rear)	
Others	Console Port x 1, Service Port (UPS) x 1	
Software Specification		
Storage OS	QSM 4	
RAID Type	0 / 1 / 3 / 5 / 6 / 10 / 30 / 50 / 60 / 5EE / 6EE / 50EE / 60EE	
Storage Efficiency	Thin provisioning / Deduplication* (option) / Compression* (option)	
Software Acceleration	SSD cache / Auto tiering	
Data Protection	Snapshot / Asynchronous / Synchronous* (option)	
Backup Services	Rsync* / S3 backup* / Cloud sync* / XMirror*	
Security	SSL / SED / WORM / RBAC / Windows ACL	
Support Protocols	CIFS / NFS / FTP* / AFP* / iSCSI / FCP	
Management	Web UI / Window 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 (Supercapacitor Module + Flash Module) (option)	
System Fan	4 pcs	
Power Supply Unit	850 W x 2 (80 PLUS Platinum)	
Power Consumption	648 W	
Certification	CE / FCC / BSMI	
Standard Warranty	System: 5 years Supercapacitor Module: 1 year	

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Appearance

1. Enclosure Status LED
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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. 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
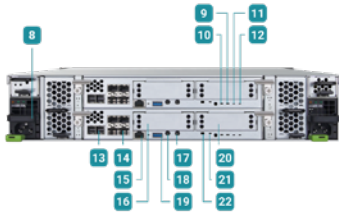22. Buzzer Mute Button

System Specification

Model Name	XN5116D	XN5116S
Architecture	Dual-active controller	Single-upgradeable controller
CPU		
Processor	Intel® Xeon® 64-bit 4-core	
Memory		
Memory Module Pre-installed	8 GB DDR4 ECC DIMM (per controller)	
Total Memory Slots	4 (per controller)	
Memory Expandable up to	256 GB (per controller)	
Storage		
Drive Bays	3.5" Slot x 16	
Maximum Drive Bays with Expansion Unit	496	
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(*) (*) SATA drives only work with single controller systems
Maximum Internal Raw Capacity	352 TB (calculate 22 TB HDD)	
Maximum Raw Capacity with Expansion Units	10,912 TB (calculate 22 TB HDD)	
Hot Swappable Drive	Yes	
Connectivity Port		
PCIe Expansion	(Gen 3x8 Slot) x 2	
1 GbE RJ45 LAN Port	1 (onboard per controller)	
10 GbE SFP+ LAN Port	4 (onboard per controller) / 4 (option)	
10 GbE RJ45 LAN Port	2 (option) / 4 (option)	
25 GbE SFP28 LAN Port	2 (option) / 4 (option)	
16 Gb SFP+ Fibre Channel*	2 (option) / 4 (option)	
32 Gb SFP28 Fibre Channel*	2 (option)	
Expansion and External Port		
12 Gb/s SAS Wide Port	2 (onboard per controller)	
USB Port	1 (front) / 2 (rear)	
Others	Console Port x 1, Service Port (UPS) x 1	
Software Specification		
Storage OS	QSM 4	
RAID Type	0 / 1 / 3 / 5 / 6 / 10 / 30 / 50 / 60 / 5EE / 6EE / 50EE / 60EE	
Storage Efficiency	Thin provisioning / Deduplication* (option) / Compression* (option)	
Software Acceleration	SSD cache / Auto tiering	
Data Protection	Snapshot / Asynchronous / Synchronous* (option)	
Backup Services	Rsync* / S3 backup* / Cloud sync* / XMirror*	
Security	SSL / SED / WORM / RBAC / Windows ACL	
Support Protocols	CIFS / NFS / FTP* / AFP* / iSCSI / FCP	
Management	Web UI / Window 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 (Supercapacitor Module + Flash Module) (option)	
System Fan	4 pcs	
Power Supply Unit	850 W x 2 (80 PLUS Platinum)	
Power Consumption	534 W	
Certification	CE / FCC / BSMI	
Standard Warranty	System: 5 years Supercapacitor Module: 1 year	

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Appearance

1. Enclosure Status LED
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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. 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	XN5112D	XN5112S
Architecture	Dual-active controller	Single-upgradeable controller
CPU		
Processor	Intel® Xeon® 64-bit 4-core	
Memory		
Memory Module Pre-installed	8 GB DDR4 ECC DIMM (per controller)	
Total Memory Slots	4 (per controller)	
Memory Expandable up to	256 GB (per controller)	
Storage		
Drive Bays	3.5" Slot x 12	
Maximum Drive Bays with Expansion Unit	492	
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(*) (*) SATA drives only work with single controller systems
Maximum Internal Raw Capacity	264 TB (calculate 22 TB HDD)	
Maximum Raw Capacity with Expansion Units	10,824 TB (calculate 22 TB HDD)	
Hot Swappable Drive	Yes	
Connectivity Port		
PCIe Expansion	(Gen 3x8 Slot) x 2	
1 GbE RJ45 LAN Port	1 (onboard per controller)	
10 GbE SFP+ LAN Port	4 (onboard per controller) / 4 (option)	
10 GbE RJ45 LAN Port	2 (option) / 4 (option)	
25 GbE SFP28 LAN Port	2 (option) / 4 (option)	
16 Gb SFP+ Fibre Channel*	2 (option) / 4 (option)	
32 Gb SFP28 Fibre Channel*	2 (option)	
Expansion and External Port		
12 Gb/s SAS Wide Port	2 (onboard per controller)	
USB Port	1 (front) / 2 (rear)	
Others	Console Port x 1, Service Port (UPS) x 1	
Software Specification		
Storage OS	QSM 4	
RAID Type	0 / 1 / 3 / 5 / 6 / 10 / 30 / 50 / 60 / 5EE / 6EE / 50EE / 60EE	
Storage Efficiency	Thin provisioning / Deduplication* (option) / Compression* (option)	
Software Acceleration	SSD cache / Auto tiering	
Data Protection	Snapshot / Asynchronous / Synchronous* (option)	
Backup Services	Rsync* / S3 backup* / Cloud sync* / XMirror*	
Security	SSL / SED / WORM / RBAC / Windows ACL	
Support Protocols	CIFS / NFS / FTP* / AFP* / iSCSI / FCP	
Management	Web UI / Window 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 (Supercapacitor Module + Flash Module) (option)	
System Fan	4 pcs	
Power Supply Unit	850 W x 2 (80 PLUS Platinum)	
Power Consumption	407 W	
Certification	CE / FCC / BSMI	
Standard Warranty	System: 5 years Supercapacitor Module: 1 year	

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