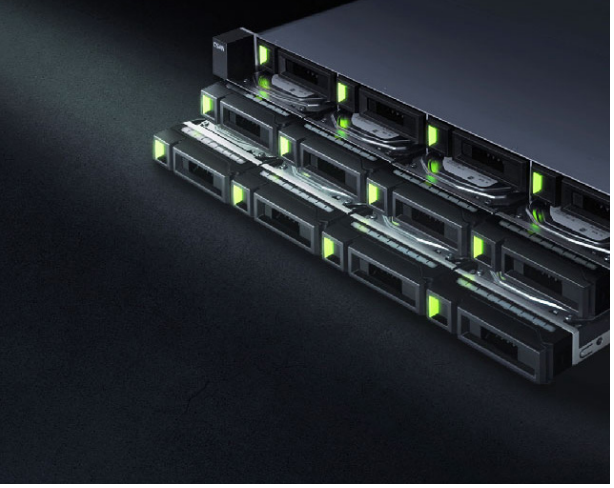


Data Sheet

QSAN Network Attached Storage

XCubeNAS 8100R

Flash-Ready and Bandwidth-Optimized for Demanding Workloads

Key Benefits

Performance Ready for Intensive Workloads

- Flash ready with built-in quad 10 GbE to accelerate I/O-intensive workloads with nimble data transmission speeds, ensuring smooth user experience.

I/O Scale-Up for Large Bandwidth

- Scalability up to the multi-petabyte level, with no practical limitations to volume or pool size. Maximize availability according to your needs to conveniently store mission-critical data in a single pool.

Multi-Layer Security

- WORM (Write Once Read Many), pool encryption, and SED (Self-Encrypting Drive) allow powerful folder, pool, and drive levels of security that shield users from cyberattacks and physical theft.

Flash-Ready for Performance Acceleration

The XCubeNAS 8100R series is high-density network attached storage system for SMB with mixed form factor expansion slots, for a total of up to 18 disks. Equipped with extra SSD bays which offer different configurations, the XCubeNAS' built-in M.2 and U.2 interfaces deliver superior, uncompromising server-grade performance for modern enterprise applications, versatile I/O expansion, and multi-layer security that ensure bulletproof data protection.

One Storage for All Platforms

XCubeNAS can replace the file server, integrate applications, and virtual servers. It can also simplify the process of integrating storage through the existing network.

- Multi protocols support of AFP / CIFS / FTP / iSCSI / NFS / WebDAV for all applications.
- Support Windows AD and LDAP Directory Services and Windows ACLs and advanced ACL for stable file service.

Efficiently Data Store to Do More with Less

Your backup and archive size will become huge, so data efficiency is very important too. Every bit counts!

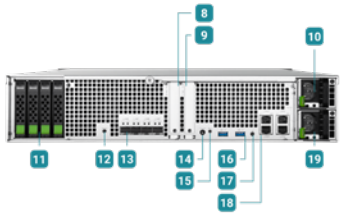
- **Deduplication** - With deduplication, QSM will auto remove the redundant data object to reduce the usage of storage capacity.
- **Compression** - Helping IT reduce the amount of storage you need to purchase and maintain.
- **Thin Provisioning** - Without limiting how much of the quota can be used by each. With thin provisioning, your business applications can achieve higher flexibility and promising potentials.
- **Hybrid SSD Cache** - Comprehensive performance-oriented, improved design. One SSD to provide both read and write cache to achieve cost-efficiency without compromising performance.

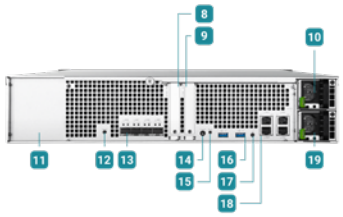
Protect Your Business from Any Threat

QSM continuously evolves our security level to protect data across storage and adhere to industry best practices from software to physical. Moreover, with a variety of built-in backup applications that help you complete data backup and data integrity. QSM can assure your assets are well-handled in our unified storage.

QSAN

Appearance



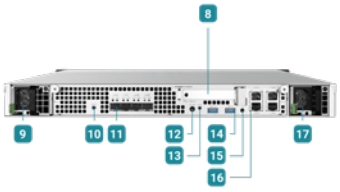


1. Enclosure Status LED
2. Enclosure Access LED
3. Enclosure Power Button / LED
4. Disk Drive Status LED
5. Disk Drive Power LED
6. USB Port
7. UID (Unique Identifier) Button / LED
8. Host Card Slot 1 (host card is an optional part)
9. Host Card Slot 2 (host card is an optional part)
10. Power Supply Unit 1
11. 2.5" NVMe U.2 SSD (not supported in RE model)
12. Reset to Factory Default Button
13. 10 GbE (SFP+) LAN Port
14. Console Port
15. Buzzer Mute Button
16. USB Port
17. UID (Unique Identifier) LED
18. 2.5 GbE (RJ45) LAN Port
19. Power Supply Unit 2

System Specification

Model Name	XN8112R	XN8112RE
Architecture	Single Controller	
CPU		
Processor	Intel® Xeon® 64-bit 4-core (8-core processor models are also available)	
Memory		
Memory Module Pre-installed	8 GB DDR4 ECC DIMM	
Total Memory Slots	4	
Memory Expandable up to	256 GB	
Storage		
Drive Bays	3.5" Slot x 12 2.5" Slot x 4 M.2 Slot x 2	3.5" Slot x 12 M.2 Slot x 2
Maximum Drive Bays with Expansion Unit	426	422
Compatible Drive Type	3.5" SATA HDD & 2.5" SATA SSD 2.5" U.2 NVMe SSD M.2 NVMe SSD	3.5" SATA HDD & 2.5" SATA SSD M.2 NVMe SSD
Drive Interface	SATA (6 Gb/s) U.2 NVMe (PCIe Gen 3x2) M.2 NVMe (PCIe Gen 3x2)	SATA (6 Gb/s) M.2 NVMe (PCIe Gen 3x2)
Maximum Internal Raw Capacity	333 TB	272 TB
Maximum Raw Capacity with Expansion Units	9,309 TB	9,248 TB
Hot Swappable Drive	Yes (M.2 slot does not support hot plugging)	
Connectivity Port		
PCIe Expansion	(Gen 4x8 Slot) x 1, (Gen 4x4 Slot) x 1	
2.5 GbE RJ45 LAN Port	4 (onboard)	
10 GbE SFP+ LAN Port	4 (onboard) / 2 (option)	
10 GbE RJ45 LAN Port	2 (option)	
25 GbE SFP28 LAN Port	2 (option)	
Expansion and External Port		
12 Gb/s SAS Wide Port	2 (option)	
USB Port	1 (front) / 2 (rear)	
Others	Console port x 1	
Software Specification		
Storage OS	QSM	
RAID Type	0 / 1 / 5 / 6 / Z3 / 10 / 50 / 60	
Storage Efficiency	Thin provisioning / Deduplication / Compression	
Software Acceleration	Hybrid SSD cache / Auto tiering	
Data Protection	Snapshot / Local volume clone	
Remote Replication	Rsync / XMirror / Asynchronous	
Security	SED / WORM / Pool encryption	
Support Protocols	AFP / CIFS / FTP / iSCSI / NFS / WebDAV	
Management	Web UI / Serial console / RESTful API / S.E.S. / LCM	
Appearance		
Dimension (H x W x D) (mm)	88.5 x 438 x 510	
Net Weight (kg)	11.6	11.1
Gross Weight (kg)	16.2	15.7
Others		
System Fan	2 pcs	
Power Supply Unit	450 W x 2 (80 PLUS Platinum)	
Power Input	100 - 240 VAC, 50/60 Hz	
Power Consumption	321 W	271 W
British Thermal Unit	1,096 BTU	926 BTU
Certification	CE / FCC / BSMI	
Standard Warranty	System: 3 years (4-core) / 5 years (8-core)	

Appearance



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17. Power Supply Unit 2

System Specification

Model Name	XN8104R
Architecture	Single Controller
CPU	
Processor	Intel® Xeon® 64-bit 4-core
Memory	
Memory Module Pre-installed	8 GB DDR4 ECC DIMM
Total Memory Slots	4
Memory Expandable up to	256 GB
Storage	
Drive Bays	3.5" Slot x 4 M.2 Slot x 2
Maximum Drive Bays with Expansion Unit	414
Compatible Drive Type	3.5" SATA HDD & 2.5" SATA SSD 2.5" U.2 NVMe SSD M.2 NVMe SSD
Drive Interface	SATA (6 Gb/s) U.2 NVMe (PCIe Gen 3x2) M.2 NVMe (PCIe Gen 3x2)
Maximum Internal Raw Capacity	96 TB
Maximum Raw Capacity with Expansion Units	9,072 TB
Hot Swappable Drive	Yes (M.2 slot does not support hot plugging)
Connectivity Port	
PCIe Expansion	(Gen 4x8 Slot) x 1
2.5 GbE RJ45 LAN Port	4 (onboard)
10 GbE SFP+ LAN Port	4 (onboard) / 2 (option)
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Net Weight (kg)	9.1
Gross Weight (kg)	13.2
Others	
System Fan	2 pcs
Power Supply Unit	450 W x 2 (80 PLUS Platinum)
Power Input	100 - 240 VAC, 50/60 Hz
Power Consumption	155 W
British Thermal Unit	528 BTU
Certification	CE / FCC / BSMI
Standard Warranty	System: 3 years