QSAN

Power Up Your Digital Universe

The most advanced modern technology meets the most outstanding QSAN storage yet. The result of this combination is whole new era of security, performance, and capacity. QSAN XS5200 SAN series gives all the business customers the performance and reliability you need, now with the newest generation Intel Xeon processor, inside the carefully designed world's first ever 2U 26 bay SAN unit. QSAN thoughtfully created the XS5200 series for work intensive businesses and mission-critical applications.

New Architecture Platform

- 5 generation Intel Xeon processor D-1500 family 4 cores
- Latest 12Gb SAS 3.0 technology
- Dual host card slots per controller, fully redundant and modular design
- Two 10GbE iSCSI (RJ45) ports onboard for default base controller
- Memory protection using super capacitor with M.2 flash module

Performance & Scalability

- Up to 12,000MB/s (read) and 8,000MB/s (write) stable throughput
- Up to 1,500K+ IOPS
- Up to 16x 16Gb Fibre Channel ports
- Up to 20x 10GbE iSCSI ports
- Scale up to 10 expansion units with over 3PB capacity

Innovated SANOS 4.0 operating system with SSD-optimized features

- QSnap (Writeable Snapshot)
- QReplica (Remote Replication with traffic shaping)
- QThin (Thin Provisioning)
- QCache (SSD Caching)
- QTiering (Auto Tiering)

High Availability & Reliability

- Dual active controller design with NTB cache mirroring
- Redundant, hot-swappable components
- Firmware upgrade with zero downtime

High Security

- iSCSI Force Field protection against mutant DDoS network attack
- Support SED drive

XS5200 series targets enterprise entry and SMB high-end businesses with limited budget and wanting for enterprise-class storage features. XS5200 series integrates Intel® Xeon® processor D1500 family that is optimized for enterprise SAN and cloud storage along with native 12Gb SAS 3.0 technology to build up the next generation storage platform to the highest standard. Innovative design includes dual host cards, dual onboard 10GBase-T ports, M.2 flash and supercapacitor modules for memory protection, and Wake-on-SAS. Not only performance can be scaled by adding a second SAN controller or adding a second host card, but the storage capacity can be scaled with XCubeDAS expansion enclosures.

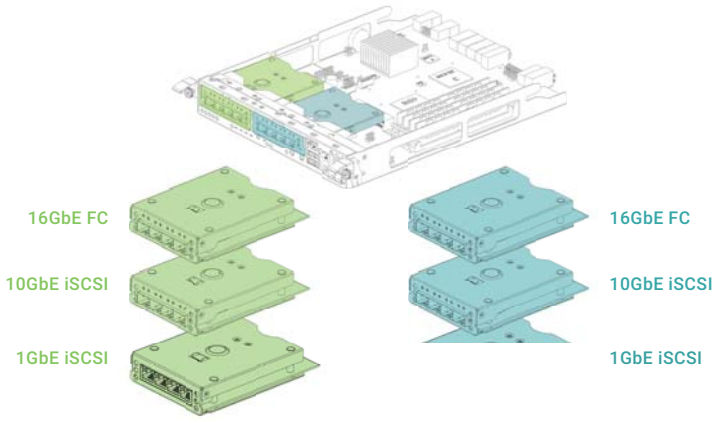
The heart and soul of XCubeSAN product family is SANOS 4.0 operating system, which is optimized to support QCache (SSD Caching) and QTiering (Auto Tiering) to fully leverage the advantages of SSD drives. XS5200 series also features real time wear level indicator to provide early warning and prevent data loss.

With the next generation storage platform, XS5200 series is positioned to provide excellent values for customers and can deliver ultra-high performance for both throughput and IOPS to enable all kinds of enterprise applications, such as

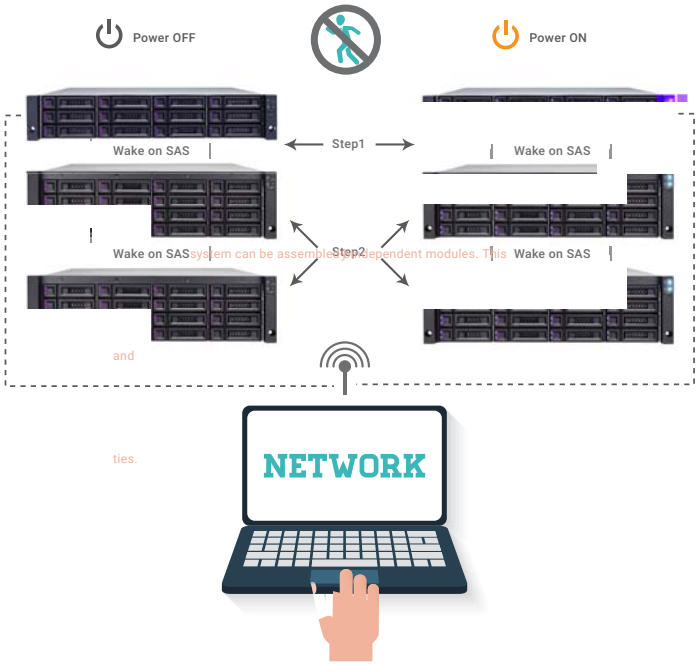
- Mission-critical database applications : real-time transactional database (Exchange server, SQL server, RDBMS, DB2), OLTP
- Consolidation & virtualization : virtualized data center, VMware, Hyper-V, Citrix
- Backup & disaster recovery : Symantec,
- Commvault, Veeam, Acronis
- Media & entertainment : 2K/4K/8K video editing, streaming and archiving.
- Large-scale surveillance : mega structure (shopping mall/skyscraper), public transportation (airport/train station/highway), secure & smart city infrastructure
- Private cloud computing and big data analytics
- Science and HPC (High Performance Computing)
- Corporate analytic or decision-making appliations : CRM, data warehousing, EAI

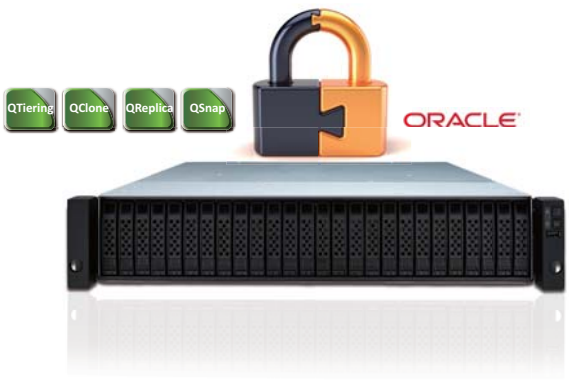
XS5200 series is built for mission-critical applications that require high availability, high reliability, data security & protection, perfromane and scalability.

All critical components are fully redundant and hot swappable modules to achieve the highest availability and reliability. Components include power supply unit, cooling fan, host card, SAN controller, and HDD tray. Modular design can significantly reduce maintenance efforts because they are field-replaceable units (FRU) and require no tools to perform the task. Thanks to this modular design of host card, the complete SAN



XCubeSAN product family has fully integrated 12Gb SAS technology to support the latest and fastest disk drives on the market. 12Gb SAS 3.0 doubles data transfer rate than 6Gb SAS 2.0. Your original investment in 6Gb SAS HDDs can still benefit from moving to XS5200 series without any negative impact. XS5200 series provides Wake on SAS wake on SAS function that can power on/off all cascaded XD5300 expansion enclosures by using QSAN proprietary SAS cable. You can power on XS5200 series using Wake on LAN function. And XS5200 series will automatically power on all XD5300 expansion enclosures attached to it using Wake on SAS function. Wake on SAS empowers IT managers to control the storage system from a remote site. This can greatly reduces maintenance efforts and power consumption.




QTiering
QClone
QReplica
QSnap
ORACLE

	XS5212-D (dual) XS5212-S (single)	XS5216-D (dual) XS5216-S (single)	XS5224-D (dual) XS5224-S (single)	XS5226-D (dual) XS5226-S (single)
RAID Controller	Dual-active or Single-upgradable controller			
Host Channels (per controller)	Host card slot 1 : 1GbE iSCSI (RJ45) x4 ports 10GbE iSCSI (SFP+) x4 ports 16Gb/8Gb FC (SFP+) x4 ports		Host card slot 2 : 1GbE iSCSI (RJ45) x4 ports 10GbE iSCSI (SFP+) x4 ports 16Gb/8Gb FC (SFP+) x4 ports	
	10GBase-T iSCSI x2 ports onboard 1GbE management port x1 port onboard			
Host Channels	Intel Xeon D-1500 family 4 cores			
Memory (per controller)	DDR4 ECC 8GB, up to 128GB			
Hard Drive Interface	Native 12Gb SAS backplane 3.5" SAS, Nearline-SAS HDD 2.5" SAS, Nearline-SAS HDD 2.5” SAS, SATA SSD (6G MUX board for 2.5" SATA SSD only)			
Expansion Channels (per controller)	Two mini SAS HD (SFF-8644) ports onboard			
Expansion Enclosure	XCubeDAS XD5300 series 12Gb SAS JBOD			
Max. Expansion Enclosures	10			
Max. Drives	446			
Form Factor	2U 12bays	3U 16bays	4U 24bays	2U 26bays
Dimension (H x W x D)	19” Rackmount 88 x 438 x 515mm	19” Rackmount 130.4 x 438 x 515mm	19” Rackmount 170.3 x 438 x 515mm	19” Rackmount 88 x 438 x 491 x 88mm
LCM Module	USB LCM module (optional[1])			
Power Supply	80 PLUS Platinum two redundant 770W (1+1) AC Input 100~127V 10A, 50-60Hz 200~240V 5A, 50-60Hz DC Output +12V 63.4A +5VSB 2.0A			
Fan Module	Two hot pluggable/redundant fan modules			