



# Supermicro and SanDisk InfiniFlash IF150 Reference Architecture Datasheet

**High Performance. Great Density. Incredible TCO.**  
Nexenta, SanDisk and Supermicro Make All Flash Storage Economical for All Workloads



## SanDisk and Nexenta: Better together.

This pre-tested and validated All Flash Storage infrastructure integrates NexentaStor’s market-leading SDS software for block and file storage with SanDisk’s flash storage technologies, including the InfiniFlash All Flash system. The Nexenta, SandDisk and Supermicro Reference Architectures integrate NexentaStor Software-Defined Storage software with SanDisk InfiniFlash systems to deliver highly available, full featured, ultra low latency block and file services on up to 2PB of all flash storage.

A single SanDisk InfiniFlash IF150 enclosure can pack up to 512TB of flash storage in as little as 3 rack units and 500 Watts. This is roughly half to one third of the power required by disks for equivalent raw capacity.

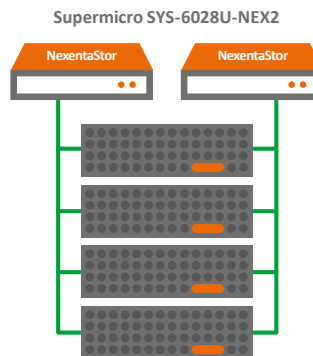
## NexentaStor: Performance without compromise.

NexentaStor is Nexenta’s flagship Software-Defined Storage (SDS) platform, allowing thousands of customers worldwide to transform their storage infrastructure whilst increasing flexibility and agility, simplifying management and dramatically reducing costs without compromising on availability, reliability, or functionality.

Running on Supermicro hardware, NexentaStor delivers unified file and block storage services, scales from hundreds of terabytes to two petabyte configurations and includes all data management functionality. NexentaStor is Software-Defined Storage with SMARTS: Security, Manageability, Availability, Reliability, (lower) TCO, and Scalability.

## Unrivaled support for Enterprise applications.

Supermicro and Nexenta reference architectures are ideally suited to support demanding enterprise applications that require high-performance, scalable block storage, and cloud backend storage. Supermicro and Nexenta reference architectures built with SanDisk InfiniFlash array configurations scale up to 2PB of storage raw capacity - perfect for those needing high density but low power solutions, and file shares for high performance applications.



## Features

### All Flash Storage

- High Performance
  - Up to 1 Million 4KB IOPS
  - Sub 1ms latency
  - Up to 5 GB/s Throughput
- Disruptive TCO
  - Less than 1/2 power consumption of disk
  - Less than 1/2 cooling needs of disk
- Higher reliability than disk
- Inline Compression
- Unlimited Snapshots & Clones
- Remote Replication
- Highly Scalable
  - Starting at 128TB in 7 Rack Units
  - Up to 2PB of All Flash in 16 Rack Units
- Unified File and Block Services
  - 10GbE NFSv3, NFSv4
  - 10GbE CIFS, SMB 2.1
  - 10GbE iSCSI
  - 16Gbps / 8 Gbps Fibre Channel

Visit us online at [nexenta.com](http://nexenta.com)

# Reference Architecture Configurations

There are two main reference architecture building blocks, the Storage Controller (Supermicro SYS-6028U-NEX2) and the Storage Enclosure (SanDisk InfiniFlash IF150).

	NSS-1x-IF150	NSS-2x-IF150	NSS-3x-IF150	NSS-4x-IF150
<b>Raw Capacity</b>	Up to 512TB	Up to 1024TB	Up to 1536TB	Up to 2048TB
<b>Total Device #</b>	64	128	192	256
<b>Form Factor (HA system)</b>	7U	10U	13U	16U
<b>Software</b>	NexentaStor 4.0.x			
<b>Controller</b>	1x or 2x SYS-6028U-NEX2			
CPU	E5-2643 v3, 3.4GHz, 6-core, 2-socket E5-2643 v4, 3.4GHz, 6-core, 2-socket			
DRAM	256GB per controller			
Boot Drive	2x 1TB SAS 7.2k 3.5" mirrored			
SAS HBA	1x AOC-SAS3-9300-8e	2x AOC-SAS3-9300-8e	3x AOC-SAS3-9300-8e	4x AOC-SAS3-9300-8e
NIC	1x AOC-STGN-i2S or AOC-STG-i2T		2x AOC-STGN-i2S or AOC-STG-i2T	
FC HBA	Emulex LPe 12002, LPe 12004, LPe 16002 QLogic QLE 2562, 2672			
<b>Storage Enclosure</b>	1x InfiniFlash IF150	2x InfiniFlash IF150	3x InfiniFlash IF150	4x InfiniFlash IF150
Flash Device	4TB or 8TB Flash Module			
L2ARC	N/A			
ZIL /SLOG	N/A			



Toll free: 1-855-639-3682  
sales@nexenta.com  
nexenta.com

twitter.com/nexenta  
facebook.com/nexenta  
LinkedIn: Nexenta Systems Inc

**Nexenta Systems, Inc.**  
451 El Camino Real, Suite 201  
Santa Clara, CA 95050

