Datasheet

# NeoSapphire H710

Scalable & Highly Available All-Flash Storage
Built for Effortless, High-Performance Applications

## Wave goodbye to

- **Service Interruption**
- **Performance Bottlenecks**
- **Capacity Constraints**
- **Traditional RAID**

## Say hello to

- **Worry-free business continuity with 99.9999% availability**
- **Acceleration of Tier 1 applications with FlexiRemap®**
- **Increased storage efficiencies with FlexiSuite® software**
- **Simplified IT service delivery across public and private clouds**
- **Award winning FlexiRemap® RAID replacement technology**

## Why H710?

The AccelStor NeoSapphire H710 is a highly available all-flash storage system that unlocks the true performance of Solid State Drives.

With its shared-nothing architecture, H710 delivers real active-active clustering with ZERO impact to data availability and performance in the event of hardware failures – all at a competitive price point.

Built around flash, H710's FlexiRemap® operating system is unlike anything else on the market today. FlexiRemap® unlocks the true power of SSDs by remapping incoming random writes into a sequential single write across every SSD in the system. As a result, the I/O per drive is 90% of the drive's potential, compared to an average of only 10% from traditional RAID based systems.

### Data Availability and Drive Durability

H710's Shared-Nothing design serves up six nines of data availability by simultaneously writing data to two nodes in an HA configuration over a high-speed Infiniband Link.

Most SSD failures occur during write operations. So unlike RAID-based systems H710 writes data once and only once, decreasing the likelihood of drive failures and extending the life of each SSD in the system by 3X[1]. These independently verified results are setting a new industry standard for SSD longevity.

### Best-In-Class Performance

FlexiRemap® features an exclusive data remapping algorithm based on the physics of NAND flash memory – turning random writes of any block size into 4K pages written sequentially. The result is an 80% boost in even commodity SSD I/O performance, which keeps costs low and I/O per drive extremely high.

### Intelligent Capacity Saving and Worry-Free Cloud Expansion Technology

With the latest FlexiRemap firmware, H710 has a powerful 4-tier intelligent data reduction platform that includes:

- Incoming I/O Zero Detection
- Unique File-Attribute Analysis
- Extremely Fast Data Compression
- Cold Data Archive to the Public Cloud

When used together, this system delivers an average 5:1 data reduction ratio, with VDI environments gaining more than 10:1. These elements deliver a significant drop in TCO and let you get the most out of your all-flash investment.

accelstor

## PRODUCT SPECIFICATIONS

| Model | NeoSapphire H710 |
|---|---|
| Form Factor | 2 x 2U 24-bay rack mount with 2.5" drives |
| Storage Architecture | Symmetric Active-Active High Availability[2] |
| Expansion Ports | 4 x SAS 12Gb/s SFF-8644 ( per node ) |
| Usable Capacity[3] | 27TB/55TB<br>w/ Expansion Max. 400TB usable and **2PB effective capacity** |
| Number of SSDs | 48 drives<br>w/ J212 Expansion Max. 144 drives<br>w/ J214 Expansion Max. 336 drives |
| IOPS for 4KB Random Writes[4] | 600K sustained with average latency of 0.9 ms |
| Flash Management | FlexiRemap® Award-Winning Technology web based management interface |
| Connectivity | 16 x 10GbE SFP+ Or 8 x 16G Fibre Channel LC SFP+ |
| Management Interface | Web GUI ( via HTTP/HTTPS )<br>CLI ( via serial port or SSH )<br>RESTful API |
| FlexiSuite™ Software | • Clone<br>• Snapshot<br>• Remote Backup / Recovery<br>• Group Snapshot<br>• Replication to Cloud<br>• Remote Replication<br>• Thin / Thick Provisioning<br>• Inline / Background Deduplication[8]<br>• Self-Encrypting Drive ( SED )[7]<br>• Inline / Background Compression |
| Certification | • VMware Ready<br>• VMware VAAI Block<br>• vSphere Web Client Plug-in<br>• VMware Virtual Volume ( VVols )[6]<br>• DataCore SMPA Qualified<br>• Tiger Technology Certified<br>• Microsoft Windows Server 2016<br>• Microsoft Windows Server 2012 R2<br>• Microsoft Windows Server 2012<br>• Microsoft Volume Shadow Copy Service ( VSS )[6]<br>• VMware SRM[6] |
| Power Supply Unit ( per node ) | 920W 1+1 redundant Or 920W+BBP |
| Power Consumption ( per node ) | Idle state: 265 Watts<br>Normal: 341 Watts<br>Heavy loading: 450 Watts |
| Dimensions ( W x D x H ) ( per node ) | 437mm x 630mm x 89mm ( 17.2in x 24.8in x 3.5in ) |
| Net Weight ( per node )[5] | 19.8kg ( 43.7lb ) |
| Environmental Temperature | Operating: 10°C to 35°C ( 50°F to 95°F )<br>Storage ( Non-Operating ) : -20°C to 60°C ( -4°F to 140°F ) |
| Environmental Humidity | Operating: 10% to 90% Non-Condensing<br>Storage ( Non-Operating ) : 5% to 95% Non-Condensing |

1. Comparisons between FlexiRemap® and RAID 5, running on exactly the same 1U rack-mount platform with 8 standard 2.5" SSDs of 200GB each.
2. H710 can be deployed at two separate data center sites for BC / DR purposes.
3. Effective Capacity is based on a calculation and assessment of the type of data being used and other factors such as compression etc. It is an estimate and may be better or worse depending on these factors.
4. Based on optimal testing configuration, performance may vary with different applications or product configurations.
5. Weight may vary depending on components and manufacturing variability.
6. Available in Q4, 2018.
7. Requires SED SSD.
8. Background file-attribute deduplication support the following file format : xfs, NTFS, SMB, NFS, ext3, ext4, vmfs3, vmfs5, vmfs6* ( available later ).


**America** ( Fremont )
Tel: +1 510 346 5686
Email: america@accelstor.com
Address: 42996 Osgood Rd Rm 1,
Fremont, CA 94539
Unite States

**America** ( Los Angeles )
Tel: +1 213 205 3105
Email: america@accelstor.com
Address: 840 Apollo St Suite 100
El Segundo, CA 90245
Unite States

**EMEA**
Tel: +44 1582 968818
Email: europe@accelstor.com
Address: Office 8, CityStore, Blackburn Rd.
Houghton Regis, Dunstable LU5 5BQ
United Kingdom

**APAC**
Tel: +882 2 77467616
Email: asia@accelstor.com
Address: 10F, No.465, Sec. 6,
Zhongxiao E. Rd., Nangang Dist.
Taipei City 11557, Taiwan

www.accelstor.com | inquiry@accelstor.com