

AegisSAN Q500 Series

High Availability, Enterprise-class Features & Cost-effectiveness



- 16G/8G Fibre Channel & 10GbE/GbE iSCSI SAN
- Dual Active Controllers for High Availability
- Fully Redundant & Hot-swappable Modules
- Multi-path & Load-balancing Features
- Enterprise-class Data Protection Designs
- USB LCM for Better Data Security & Manageability
- Innovated Hardware Offload Engines
- Low Power-consumption Processor Adopted
- 80 Plus Gold Energy-efficient Power Supplies
- Virtualization Technologies Supported
- Thin Provisioning for Dynamic Capacity Allocation



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AegisSAN Q500 Series Overview

Do More With Less

As the technology leader in storage industry, Qsan keeps helping customers do more with less based on the core competency of Ethernet and software capability, and AegisSAN Q500 series is therefore derived. AegisSAN Q500 system offers rich enterprise-class storage functions yet remains low power-consuming and cost-effective for budget-constrained enterprises and SMBs.

High Availability & Reliability

AegisSAN Q500 system features dual active controllers plus the fully redundant & modular hardware components to make the disk array highly available for mission-critical applications. It offers multiple paths and load balancing designs as well as hardware RAID to better ensure the reliability and to provide non-stop services. To satisfy the ever-growing business demands, this series delivers high scalability supporting up to 256 drives and great price-performance, which puts it ahead of other tier-1 brands.

AegisSAN Q500 solution is ideal for performance-demanding applications with its innovated hardware offload engines. The flagship model Q500-F30 adopts QLogic's latest 16G Fibre Channel silicon to double the bandwidth to the host, achieve faster transaction rates and maximize the performance potential.

Eco-friendly Designs

Designed to lower the total cost of ownership and enable increased availability and reliability, the Qsan Q500 array features Intel's newest low-power SoC, the world's first atom-based SAN solution with the benefits of increased energy efficiency. This platform includes key features such as error code correction, 64-bit support and virtualization technologies. AegisSAN Q500 system is equipped with 80 Plus Gold power supplies to achieve greater than 90% energy efficiency as well as peak reduction and improved power quality. The auto disk spin down function enables AegisSAN Q500 to decrease power consumption of hard drives which accounts for the most electricity in the storage system to reduce operating costs.

Enhanced Data Security

The innovated USB LCM allows AegisSAN Q500 storage to avoid data leakage in data centers, lower TCO and enhance the manageability for IT administrators. This series includes QSnap for writeable snapshot and QReplica for remote replication for disaster recovery. The battery backup module keeps cache data safe in the event of power outage.

Data Efficiency

AegisSAN Q500 system supports comprehensive virtualization technologies including VMware VAAI, Citrix and Hyper-V. With VAAI certification, the disk array can offload server and network loading, speed up provisioning of new virtual machines and increase VM density. AegisSAN Q500 also provides QThin so that organizations can avoid allocated but unused storage and purchase only the disk capacity they actually need.

Available Models

AegisSAN Q500 series has the world's leading 16Gb Fibre Channel storage solution to double the bandwidth and performance for enterprises. The available products include the AegisSAN Q500-F30 with two 16G FC ports, Q500-F21 with four 8G FC ports and Q500-F20 with two 8G FC ports. For iSCSI models, there are AegisSAN Q500-P20 with two 10GbE iSCSI ports and Q500-P10 with six 1GbE ports.

AegisSAN Q500 Series Specifications

| | AegisSAN Q500 Series | | | | | |
|--|--|--|----------------------------------|--|---|--|
| | Q500-P10 | Q500-P20 | Q500-P21* | Q500-F20 | Q500-F21 | Q500-F30 |
| Hardware | | | | | | |
| RAID Controller | | | | -upgradable controller | Och Films Channel and a d | A Cole Filmer Channel and the 2 |
| Host Channels | - 1GbE ports x6 | 10GbE ports x2 (SPF+) 1GbE ports x2 | 1GbE ports x2 (10GBase-1) | 1GbE ports x2 | 8Gb Fibre Channel ports x4 1GbE ports x2 | 16Gb Fibre Channel ports x2 1GbE ports x2 |
| (Per controller) | | | | | | |
| Processor | 1GbE management port x1 Intel Briarwood \$1200 SOC | | | | | |
| Memory | 4GB DR3 ECC, up to 8GB per controller | | | | | |
| Hard Drive Interface | 6Gb/s SAS/SATA/SSD (3.5" and 2.5") | | | | | |
| Expansion Enclosure | J300Q 6Gb/s SAS series | | | | | |
| Max. No. of Hard Drive | 256 | | | | | |
| Form Factor | 4U24, 3U16, 2U12* (SBB) | | | | | |
| | 19" Rackmount | | | | | |
| Dimension | 4U: 446.0mm x 499.5mm x 176.0mm (W x D x H) | | | | | |
| | 3U: 446.0mm x 499.5mm x 130.0mm (W x D x H) | | | | | |
| 147 - 1 - L 4 | 2U: 446.0mm x 499.5mm x 88.0mm (W x D x H) | | | | | |
| Weight Power Supply | 2U: 25Kg (Diskless); 3U: 33Kg (Diskless); 4U: 37Kg (Diskless) 4U: 3 x 550W; 3U: 2 x 550W; 2U: 2 x 550W | | | | | |
| Fan Module | 2 hot pluggable/redundant fan modules | | | | | |
| Features Highlights | | | 2 100 pruggable/re | dundant fan modules | | |
| | QiSOE (Qsan iSCSI hardv | ware offload engine). | | QiSOE (Qsan iSCSI hard | ware offload engine). | |
| iSCSI | Jumbo frame, CHAP auth | | | Jumbo frame, CHAP auth | | |
| | Virtual LAN, iSNS support | | | Virtual LAN, iSNS support | | |
| | Role-based access control / Active directory | | | Role-based access control / Active directory | | |
| | Up to 64 multiple nodes support, | | | Up to 32 multiple nodes support, | | |
| | Up to 64 hosts support, | | | Up to 32 hosts support, | | |
| | Up to 256 sessions per c | controller | | Up to 64 sessions per co | ontroller | |
| FC | | | | fcQiSOE (Qsan fibre cha | nnel hardware offload engine |) |
| | | | | FCP-2 & FCP-3 support | | |
| | | | | Auto detect speed and to | opology, Topology support : Pe | oint-to-point, FC-AL, Fabric |
| | | - | | Role-based access contr | | |
| | | | | Up to 64 multiple nodes support | | |
| | | | | Up to 64 hosts support | | |
| | DAID In all 0.4 0.4 0.5 C | 10 20 50 CO IDOD N | | Up to 512 sessions per o | controller | |
| RAID & Volume | | 10,30,50, 60, JBOD, N-way m | Irror | | | |
| | Up to 2048 logical volum | | | | | |
| | Up to 64 hard drives per RAID group One logic volume can be shared by as many as 16 hosts | | | | | |
| | Global and dedicated ho | | 363 | | | |
| | Write-through or write-b | • | | | | |
| | Online volume expansio | | | | | |
| | Instant RAID volume ava | | | | | |
| | Auto volume rebuilding | | | | | |
| | On-line volume migratio | n without system down time | | | | |
| High Availability | Dual-Active RAID control | lers | | | | |
| | Cache mirroring through | n high bandwidth channels (I | NTB) | | | |
| | Flexible RAID group ownership management | | | | | |
| | Management port seamless take-over | | | | | |
| | Online firmware upgrade, no system down time (dual-controller mode only) | | | | | |
| | Multi-path & load-balancing support (Microsoft MPIO, MC/S, Trunking, LACP) QReplica remote replication | | | | | |
| Advanced Data Protection | QSnap writable snapsho | | | | | |
| | Volume cloning | | | | | |
| | - | ume Shadow Conv Services /\ | (SS) | | | |
| | Microsoft Windows Volume Shadow Copy Services (VSS) Configurable N-way mirror | | | | | |
| | Online disk roaming | | | | | |
| | Instant volume restoration | | | | | |
| | Hot pluggable battery backup module (BBM, 72 hours for 4GB RAM) | | | | | |
| | Network UPS | | | | | |
| Data Efficiency | QThin | | | | | |
| Management | QCentral Java-based centralized management software, USB LCM, Serial console, UPS console, | | | | | |
| - | , | <u>, , , , , , , , , , , , , , , , , , , </u> | idicators, iSNS, S.E.S., Wake-or | n-LAN | | |
| Networking | . , , | nking, LACP, VLAN, Jumbo fra | | | | |
| Notification | | ser pop-up windows; Syslog; | 0 | | | |
| OS Support | | s Server 2003 R2, 2008, 2008 | | | | |
| | | Dyp: Solaris 10/11: Mac OS | 10.0 OF later | | | |
| Virtualization | Red Hat Enterprise Linux | | | | | |
| Virtualization | Vmware (VAAI); Citrix; Hy | yper-V | | | | |
| | Vmware (VAAI); Citrix; Hy 80 Plus Gold energy-effic | yper-V cient power supplies | when necessary | | | |
| Virtualization Green | Vmware (VAAI); Citrix; Hy 80 Plus Gold energy-effic Wake-on-LAN to turn on | yper-V cient power supplies or wake up the system only v | | | | |
| | Vmware (VAAI); Citrix; Hy 80 Plus Gold energy-effic Wake-on-LAN to turn on MAID to increase storag | yper-V cient power supplies | | | | |
| Green | Vmware (VAAI); Citrix; Hy 80 Plus Gold energy-effic Wake-on-LAN to turn on | yper-V cient power supplies or wake up the system only v | | | | |
| Green | Vmware (VAAI); Citrix; Hy 80 Plus Gold energy-effic Wake-on-LAN to turn on MAID to increase storag | yper-V cient power supplies or wake up the system only v e density and decreased elec | | | | |
| Green Compliance & Warranty | Vmware (VAAI); Citrix; Hy 80 Plus Gold energy-effic Wake-on-LAN to turn on MAID to increase storag Auto disk spin down | yper-V cient power supplies or wake up the system only v e density and decreased elec backup module: 1 year | | | | |
| Green Compliance & Warranty Warranty Safety & EMI | Vmware (VAAI); Citrix; Hy 80 Plus Gold energy-effic Wake-on-LAN to turn on MAID to increase storag Auto disk spin down System: 3 years; Battery | yper-V cient power supplies or wake up the system only v e density and decreased elec backup module: 1 year | | | | |
| Green Compliance & Warranty Warranty Safety & EMI | Vmware (VAAI); Citrix; Hy 80 Plus Gold energy-effic Wake-on-LAN to turn on MAID to increase storag Auto disk spin down System: 3 years; Battery RoHS, CE, FCC, BSMI, UL, | yper-V cient power supplies or wake up the system only v e density and decreased elec backup module: 1 year | trical power | | | |
| Green Compliance & Warranty Warranty Safety & EMI Requirements | Vmware (VAAI); Citrix; Hy 80 Plus Gold energy-effic Wake-on-LAN to turn on MAID to increase storag Auto disk spin down System: 3 years; Battery RoHS, CE, FCC, BSMI, UL, 90-264V ~ 10A-5A 550W 3.3V-25A, 5V-32A, 12V-4 | yper-V cient power supplies or wake up the system only v e density and decreased elec backup module: 1 year cUL with PFC (Auto Switching), 5 | trical power | | | |
| Green Compliance & Warranty Warranty Safety & EMI Requirements AC Input DC Output Operating Temperature | Vmware (VAA); Citrix; Hy 80 Plus Gold energy-effic Wake-on-LAN to turn on MAID to increase storag Auto disk spin down System: 3 years; Battery RoHS, CE, FCC, BSMI, UL, 90-264V ~ 10A-5A 550W 3.3V-25A, 5V-32A, 12V-4 0 to 40°C | yper-V cient power supplies or wake up the system only v e density and decreased elec backup module: 1 year cUL with PFC (Auto Switching), 5 5A | trical power | | | |
| Green Compliance & Warranty Warranty Safety & EMI Requirements AC Input DC Output | Vmware (VAAI); Citrix; Hy 80 Plus Gold energy-effic Wake-on-LAN to turn on MAID to increase storag Auto disk spin down System: 3 years; Battery RoHS, CE, FCC, BSMI, UL, 90-264V ~ 10A-5A 550W 3.3V-25A, 5V-32A, 12V-4 | yper-V cient power supplies or wake up the system only v e density and decreased elec backup module: 1 year cUL with PFC (Auto Switching), 5 5A | trical power | | | *Available in Mar. 201 |

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