



Echo Storage Platform Powered By AMD Opteron™ Processor

A Dual-Processor AMD64™ 2U, 12-Drive NAS/IP-SAN Enterprise Class Appliance for Original Design Manufacturers (ODM)

Product Overview

Avnet® and AMD, in conjunction with industry partners, have collaborated on a 2U, 12-drive validated NAS / IP-SAN / DAS storage platform, based on commercially available hardware and software. This turnkey appliance is based on the AIC™ chassis power/cooling solution, Seagate® 1TB SATA HDD and the Tyan™ 3992E enterprise class system board. The Echo storage platform is provided either as a fully assembled, tested and validated 12TB turnkey storage solution or in component form based on an Avnet Technology Solutions supplied Bill of Materials (BOM). The Echo storage platform is based on state-of-the-art I/O and compute components, powered by two dual-core AMD Opteron™ processors. The platform is characterized under Open-E Data Storage Server (DSS).



The Echo storage platform is the basis of a powerful, scalable and highly configurable appliance for ODMs and OEMs. The Tyan enterprise class S3992E system board can support a wide range of AMD Opteron™ single-, dual- or even quadcore processors, up to 64GB of SMART® Modular Technologies 667MHz ECC-DDR2 memory and can be configured to accommodate multiple PCIe/PCI-X slots for hardware RAID acceleration or various types of network loads. When coupled with any number of different software solutions, the platform becomes a powerful application server with internal storage (DAS) or can be used as a dedicated network storage appliance (NAS or iSCSI).

Avnet Enterprise-Class Reliability and Flexibility

The Echo storage platform represents a compelling turnkey solution that is designed, tested and assembled to the highest standards in Avnet's new state-of-the-art ISO 9001/AS9100B facility in Chandler, Arizona. This facility is flexible enough to handle small, custom configurations or high-volume requirements based on customer driven test/validation plans. Technology is backed by industry standard warranties, replace/exchange policies and Avnet's 50+ year reputation as a provider of world-class components, systems and solutions.

Even though the Echo storage platform is based upon enterprise-class suppliers and the highest quality components, it also represents a new level of collaboration orchestrated by Avnet Technology Solutions. The Echo storage appliance is not only a great NAS / IP-SAN solution at an attractive price point, but a new business opportunity for ODMs and OEMs who want to leverage Avnet's vast inventory and assembly/test capabilities combined with Just-In-Time logistics for Lean Manufacturing, resulting in increased profit margins.



Partner Description Dual Core AMD Opteron™ Processor: Embedded designers can count on AMD for long-term component availability **AMD** - P/N - two AMD2214HE and comprehensive design support, including socket-compatible processors - Clock - 1.8Ghz from the ultra-value single-core processor at 1.8GHz with 630KB of on-chip - On-chip cache - 2¼MB cache, to mainstream dual-core options at 1.8GHz and 2.2GHz with 2MB of on-chip L2 cache, through to the highest-performance quad-core processors at 2.2GHz with 4MB of L2/L3 cache that can support up to 32GB of PC2-5300 memory per processor. Tyan Thunder h2000M system board: The Tyan S3992G3NR-E enterprise-class system board is rich with features - P/N - S3992G3NR-E and the ability to support multiple PCI-X or PCI-E NICs. In addition, it has 16 - Dual Socket-F (quad-core ready) RDDR2 DIMM slots capable of supporting up to 32GB of DDR2-667 memory per - Sixteen DDR2 DIMM slots processor and native support for up to four SATA drives, ATI-ES 1000 graphics, TARO™ add-on card support, and remote management (IPMI 2.0; optional) all in an eATX (12" x 13") form factor. Advanced Industrial Computer (AIC): The AIC chassis supports a variety of drive types and sizes making it possible - P/N RSC-2EG to meet the exact expectations of your customers. It can accommodate up-to 12 - 12 hot-swappable SATA drives SATA/SAS or Fibre Channel drives supporting up to 12TB of raw storage. - 2U form-factor. Seagate SATA HDD: Seagate Barracuda ES and Barracuda ES.2 enterprise drives are designed for - P/N ST31000340NS RAID and Tier2 nearline applications where high-capacity, high-reliability, - 12 SATA 1TB drives Seagate low power consumption and tolerance to rotational vibration (RV) are primary - Barracuda® ES hard drive family requirements. SMART Modular Technologies: SMART Modular Technologies' lineup of DDR2 memory modules offer - P/N SG1287RD264852QB2 the latest in leading-edge memory technology. With many advantages over - 1GB ECC DDR2 667MHz DIMMs standard DDR memory, including higher speeds (400 Mbps to 667 Mbps), lower - 8GB per processor-16GB total I/O voltage (1.8 V), and lower power consumption (247mW) modules. SMART also accommodates custom DDR2 module designs based on specific OEM requirements or application trends. Open-E Data Storage Server (DSS) Open-Er DSST is a highly flexible storage management software platform that open-e - Unified (file/block) storage offers unified file/block (NAS or SAN) support and enables system integrators management software to build affordable IP (GbE or 10GbE), Fibre Channel, or InfiniBandr storage - iSCSI (GbE/10GbE), Fibre Channel software solutions for businesses of all sizes. or InfiniBandr - Scheduled snap-shots, remote Storage replication & automatic failover. Promise Hardware RAID controller: Promise Technology offers a complete line of Hardware RAID controllers. PROMISE° TECHNOLOGY, INC. - P/N EX16650 Every controller in our product family is built around our proven, enterprise - 16 channel SATA/SAS - 3.0 interface class RAID code and supports our robust error handling and error management - Hardware RAID acceleration features - PerfectRAID™. Chelsio dual-port 10GbE NIC: Chelsio Communications leads the convergence of networking, storage and - P/N S320E-CXA Chelsio clustering interconnects with its robust 'Unified-Wire' technology. Chelsio third - 10GbE, full duplex generation line of 10GbE all-in-one adapters delivers the industry's lowest Communications - Full TCP/IP, latency and maximum throughput NIC, TOE, iSCSI and RDMA. - iSCSI & RDMA offload

About Avnet Technology Solutions

Avnet Technology Solutions is an operating group of Phoenix-based Avnet, Inc. As a global technology sales and marketing organization, Avnet Technology Solutions has sales divisions focused on specific customer segments and a select line card strategy enabling an exceptional level of attention to the needs of its customers and suppliers. For fiscal year 2008, the group served customers in more than 30 countries and generated US \$7.6 billion in annual revenue. The group's Web site is www.ats.avnet.com.

Avnet, Inc. (NYSE:AVT), a Fortune 500 company, is one of the largest distributors of electronic components, computer products and embedded technology in the world. Avnet accelerates its partners' success by connecting the world's leading technology suppliers with a broad base of more than 100,000 customers and providing cost-effective, value-added services and solutions. For the fiscal year ended June 28, 2008, Avnet generated revenue of \$17.95 billion. For more information, visit www.avnet.com.

1.888.300.8277 esv_sales@avnet.com www.ats.avnet.com/amd

Avnet Technology Solutions 8700 South Price Road Tempe,AZ 85284