



# AssuredSAN™

3004 - 4 Port Fibre Channel and iSCSI  
Storage Systems

## BENEFITS

### Scalable Performance

3300 MB/s sequential reads, 2400 MB/s sequential writes, 40,000 IOPS from disk  
SimulCache™ - Low latency cache mirroring  
Data rates up to:  
16Gb/sec. FC or 10Gb/sec. iSCSI  
Up to 3 expansion units per system  
Support for SAS, Nearline SAS  
Max 96 SFF drives, or Max 48 LFF drives

### Built in Redundancy

Dual RAID controller  
Redundant, hot swap components  
RAID 0, 1, 3, 5, 6, 10, 50

### Assured Data Protection (optional)

AssuredSnap™ - 1000 snapshots  
AssuredCopy™ - 512 volume copies  
AssuredRemote™ - remote replication

### Certifications

Microsoft certified  
Citrix, VMware, StorNext, Data Core, Veeam planned

### Green Features

EcoStor™ battery-free cache backup  
Drive spin-down  
RoHS-6 and WEEE compliant

### Rugged Chassis

NEBS Level 3 Compliant  
MIL STD 810G Compliant (Storage Requirements)  
European Telco Compliant

## CAPACITY AND PRICEPOINT

The AssuredSAN™ Solutions combine high capacity storage with the ease of the RAIDar management GUI, which provides a complete set of features and tools to ensure that storage administration is easy and efficient.

Updated 3004 models feature next-generation host connection speeds, optional DMS software, and high capacity drives. These models support the following host connection types: 8Gb Fibre Channel, 16Gb Fibre Channel, 1Gb iSCSI, or 10Gb iSCSI, giving customers many options to adapt to networking and applications requirements.

The AssuredSAN 3004 models were designed for value and flexibility both for today's needs and future upgrades.

AssuredSAN arrays with data protection are ideal for business critical applications such as email, databases, file sharing and video editing. Benefiting from fast host connections, these systems readily support I/O intensive applications such as virtual server environments, server backup, and small workgroup video editing.

### AssuredRemote™ - Easy Remote Replication for SMBs

Dot Hill's AssuredSAN™ solutions offer an innovative and comprehensive view of storage management — store, back up and restore instantly. With optional AssuredRemote™ remote replication software, these systems provide array-to-array remote replication solution, enabling disaster recovery protection and business continuity with support for up to 1000 snapshots per storage array.

By providing centralized, array-level replication, AssuredRemote offloads backup operations from critical application servers, and aids IT managers in complying with regulations such as the HIPAA and Sarbanes-Oxley acts.

With AssuredRemote replication software and VMware's Site Recovery Manager, you can implement a complete site failover solution.



# AssuredSAN™ 3004

## AssuredCopy™ and AssuredSnap™

The AssuredSAN data protection and disaster recovery solution has optional licensing of AssuredSnap™ and AssuredCopy™ data protection software. With up to 1000 snapshots capability, AssuredSANs offer necessary protection for business critical applications such as email, databases, and file sharing.

AssuredSnap instantly takes volume snapshots, creating point-in-time backups that can be used to restore your data after a system failure. In addition, AssuredCopy protects against disk failures.

## Rugged Storage Features and Redundancy

The 3004 Series ensures that there is no “single point of failure,” and automatic failover mechanisms facilitate the highest levels of data protection, service levels and disaster recovery. The 3004 Series is suitable for mobile applications with NEBS Level 3 and MIL-STD 810G shock and vibration compliance in the 2U12 chassis.

## AssuredSAN Architecture Environmentally Responsible

Utilizing Dot Hill’s patented EcoStor™ technology, these systems have completely eliminated cache batteries, using instead super capacitors and flash memory to provide infinite cache backup during a power loss, while being environmentally friendly.

The AssuredSANs also feature energy saving drive spin-down.

## Enhanced Performance

The storage systems leverage patented SimulCache™ technology that instantly and simultaneously mirrors cache between RAID controllers, leading to significant performance improvements over traditional implementations.

## Storage Made Easy

AssuredSAN arrays are easy to configure and manage with RAIDar 2.0, our intuitive web based interface which provides storage setup and monitoring without the need for host based software. RAIDar 2.0 saves time with configuration and installation wizards, and schedulers for snapshots and replication.

- Easy to set up
- Configuration, Installation Wizards simplify management
- EcoStor™ eliminates routine battery maintenance
- Modular field replaceable power supplies, fans, and controllers
- Localization for Dutch, French, German, Italian, Japanese, Korean, Spanish, Simplified Chinese, Traditional Chinese

## models

### Models - 3824 Fibre Channel and iSCSI

#### With twenty four 2.5” Drives

Drives per array up to 24  
Max capacity per chassis 28.8TB

#### PHYSICAL

Depth (excluding cables) 20.46 Inches / 51.9 cm  
Height 3.5 Inches / 8.9 cm  
Width 17.6 Inches / 44.7 cm  
Width w ear mounts 18.99 Inches / 48.24 cm  
Chassis weight 43 lb / 19.5 kg  
w / drives 56lb / 25.5 kg

### Models - 3834 Fibre Channel and iSCSI

#### With twelve 3.5” Drives

Drives per array up to 12  
Max capacity per chassis 72TB

#### PHYSICAL

Depth (excluding cables) 20.57 Inches / 52.25 cm  
Height 3.43 Inches / 8.71 cm  
Width 17.6 Inches / 44.7 cm  
Width w/ ear mounts 18.99 Inches / 48.24 cm  
Chassis weight 43 lb / 19.5 kg  
w / drives 62 lb / 28 kg



# AssuredSAN™ 3004

## Features

### HOSTS

External Ports 2 per controller/4 maximum

### Fibre Channel

Host speed 16Gb, 8Gb Fibre Channel  
Interface Type SFP+

### iSCSI Models

Initiators 10Gb NIC or 1Gb, 10Gb iSCSI  
Interface Type SFP+

### DRIVE SUPPORT

3824 SAS, Nearline SAS  
3834 Nearline SAS

\* For most current drive support information ,  
visit <http://www.dothill.com/storage-arrays/drive-options/>

### EXPANSION

J6G12 (2U12) (1 RAID, 3 JBOD) 48 DRIVES  
J6G24 (2U24) (1 RAID, 3 JBOD), 96 DRIVES

### HIGH-AVAILABILITY FEATURES

Redundant Hot-Swap Controllers  
Redundant Hot-Swap Disk, Fans, Power  
Dual Power Cords  
Hot Standby Spare  
Automatic Failover  
Multi-Path Support

### PROTOCOLS AND STANDARDS

IP (RFC, 894, 1092) SCSI-2 and SCSI-3

### SUPPORT

Software Warranty 90 days  
Standard Hardware Warranty 3 years

### RAID

Levels Supported 0, 1, 3, 5, 6, 10 and 50

### SYSTEM CONFIGURATION

Cache Memory 4GB per controller  
Virtual disks per System 32  
Volumes per virtual disk 256  
Volumes per System 1024  
Mirrored Cache Yes - SimulCache™  
Super Capacitor Cache Backup Yes  
Cache Backup to Flash Yes - Non-volatile

### MANAGEMENT

Interface Types 10/100 Ethernet, Mini USB  
Protocols Supported SNMP, SSL, SSH, SMTP, SMI-S Provider,  
HTTP(S)

Management Consoles WEB GUI, CLI  
Management Software RAIDar 2.0

Remote Diagnostics  
Non-disruptive Updates  
Volume Expansion

### COMPLIANCE AND STANDARDS

NEBS Level 3, MIL SPEC 810G  
IP (RFC, 894, 1092) SCSI-2 AND SCSI-3

## Detailed Specifications

### POWER REQUIREMENTS - AC INPUT

Input Power Requirements 100-240VAC 50/60Hz  
Max Input Power 375W maximum continuous - 3834  
Max Input Power 400W maximum continuous - 3824  
Heat Dissipation 1488 BTUs/hour

### Bronze Rated - high efficiency

82% @ 20% load  
86% @ 80% load  
85% @ 100% load

### POWER REQUIREMENTS - DC INPUT

Voltage -39 to -72VDC, -48/-60V nominal  
Max Input Power 500W maximum continuous  
Heat Dissipation 1706 BTU/hour

### TEMPERATURE AND HUMIDITY RANGES

Operating Temperature 41 °F to 104 °F (5 °C to 40 °C)  
-40 °F to 158 °F (-40 °C to 70 °C)  
Shipping Temperature  
Note: Derate 2 °C for every km, up to  
3000 meters

Operating Humidity 10% to 90% RH @ 104 °F (40 °C), non-condensing  
Non-Operating Humidity Up to 93% RH @ 104 °F (40 °C), non-condensing

### DECLARED ACOUSTIC NOISE LEVELS

Sound Power LWAd=6,75 B  
Sound Pressure LpAm - 55dB<sub>A</sub>

### SHOCK AND VIBRATION

Shock, Operational 3G's for 10 ms, half sine  
Shock, Non-Operational 10G 11ms, half sine  
Vibration, Operational 5Hz to 500Hz, 0.21Grms flat spectrum  
Vibration, Non-Operational 3-365-3Hz, 1.22 Grms, z-axis, 0.85 Grms,  
X&Y axis shaped spectrum

Note: Dot Hill AssuredSAN disk array chassis, power supplies, and controllers support NEBS, ETSI, and MIL-STD-810G shock and vibration standards. Hard disk drive selection may alter ability to achieve full compliance with these specifications as HDDs have varying S&V performance characteristics.

### REGULATORY

Safety UL 60950-1, 2nd edition (USA)  
CAN/CSA-C22.2 No.60950-1 2nd edition (Canada)  
EN 60950-1 (European Union)  
IEC 60950-1 (International)  
EN 60950-1 (GS Mark, Germany)  
CCC Mark China PRC)

### Electromagnetic Compatibility

Emissions CFR 47 Part 15 Subpart B Class A (U.S.A.)  
ICES-003 Class A (Canada)  
EN 55022 Class A (EU)  
EN 300 386 Class A (EU Telco)  
AS/NZS CISPR 22 Class A (Australia, New Zealand)  
VCCI Class A (Japan)  
GOST R 51318.22 Class A (Russia)  
KN 22 Class A (S. Korea)  
CNS 13438 Class A (Taiwan)

### Harmonics

Flicker EN61000-3-2 (EU)  
Immunity EN 61000-3-3 (EU)  
EN 55024 (EU)  
EN 300 386 (EU Telco)  
GOST R 51318.24 (Russia)  
KN 24 (S. Korea)

RoHS and WEEE RoHS-6/6 Compliance, China RoHS, WEEE

Country Approvals United States, Canada, European Union (EU),  
Australia/New Zealand, Japan, China (PRC), Russia,  
Mexico, Germany, South Korea, Taiwan , India



# AssuredSAN™ 3004

## support Warranty

AssuredSANs come with a three year standard hardware warranty, a 90 day software warranty, and Bronze level support, which provides expert 24x7 technical telephone support, access to online support and the Customer Resource Center containing articles, product documentation, and firmware upgrades.

## Gold and Platinum Support Programs

Gold and Platinum levels of support offer maximum responsiveness. These programs include options for same day advance shipment, parts depot access, next business day, and 4-hour onsite service. Extended hardware warranties and extended software support packages are also available.

## ordering information

Channel models described in this datasheet ship with the array, disk drives, a rail kit, cables, Installation Guide, and Bronze support. They come with AC Power. A DC power option is available in the drive-less chassis.

Dot Hill SFPs are required for iSCSI and Fibre Channel and are available in 4-packs. One (1) 4-pack is needed for each RAID unit. Choose from 1G iSCSI, 10G iSCSI, 8G Fibre Channel, or 16G Fibre Channel.

For assistance, call 800-872-2783, extension 3575.

## OEM Models

OEM models are available for volume OEM customers. For specific information on models, availability, power supplies, contact our OEM sales team.

**For more information visit:**

**[www.dothill.com](http://www.dothill.com)**



\* NOTE: Subject to change at any time.



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