



AssuredSAN™

3120 and 3130 JBODs

BENEFITS



Scalable Performance

- 6Gb/sec. SAS connectin to host
- Up to 7 expansion units per system
- Support for SAS, SATA, solid state drives (SSDs)
- Max 144 drives - 3523, 96 - 3533

Built in Redundancy

- RAID 0, 1, 3, 5, 6, 10, 50
- Redundant, hot-swappable power units, IO modules, fans and drives

Green Features

- Energy saving Drive-spin-down

Compliance

- RoHS-5/6 compliance - 3533
- RoHS-6 compliance - 3523
- WEEE compliant

EXPANSION ARRAYS

As your need for storage increases, Dot Hill provides an easy to deploy and cost ef fective way to extend your fibre channel, SAS or iSCSI SAN. The 3120 or 3130 expansion unit can be quickly deployed to add the extra storage capacity you need.

Affordable Tiered Storage

A total of seven JBOD expansion units can be added. These highly flexible expansion arrays support SAS, SATA, and SSD drives within a single chassis, allowing you the flexibility to manage tiered storage within a single system. Dot Hill storage systems offer an affordable, dynamic, flexible for any sized enterprise.

The 3120 JBOD expansion unit can support an additional 24 drives and the 3130 JBOD expansion unit can support an additional 12 drives. These units easily expand the capacity of a customer's SAN.

The 3120 or 3130 JBOD array is controlled by the RAID controller of the primary unit and allows SAN expansion at a lower cost than a full RAID array.

Easily Expand Your SAN Capacity

Use the 3120 with...

The 3120 JBOD expansion units can be deployed with all Dot Hill AssuredSAN 3000 arrays that feature 2.5-inch disk drives.

Use the 3130 with...

The 3120 JBOD expansion units can be deployed with all Dot Hill AssuredSAN 3000 Series arrays that features 3.5-inch disk drives.



Out of the Box Support for 6Gb SAS - maximum throughput

The AssuredSAN 3000 Series is the first RAID solution to feature out-of-the-box support for 6Gb SAS drives. Leveraging 6Gb SAS-enabled mid-plane together with 6Gb SAS drives, AssuredSAN systems can achieve improved system throughput that allows for faster access to business data. The doubling of system bandwidth makes the AssuredSAN 3000 Series ideal for performance-intensive applications such as server virtualization, server backup and video streaming.

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 AssuredSAN 3000 Series also features energy saving drive-spin-down. With the addition of drive spin-down, mixed drive type support and dual protocol interfaces, users can now combine both high performance primary volumes and secondary storage with different performance and energy usage profiles in the same physical unit.

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

The 3000 Series 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.

support

Warranty

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

Gold and Platinum Support Programs

Dot Hill is equipped to provide the extra level of support you may need to meet your service level agreements. Our Gold and Platinum levels of support are designed to offer maximum responsiveness anywhere in the world. These programs include options for same day advance shipment, parts depot access, next business day and 4-hour onsite service.

We also offer extended hardware warranties and extended software support packages.

Shipping Information

3120C

Packaged product weight	67.5 lbs with drives
Packaged product dimensions	Width 25.5", Height 10", Depth 28.5"

3130C

Packaged product weight	85.5 lbs with drives
Packaged product dimensions	Width 25.5", Height 10", Depth 28.5"

models

3120C, 3130C

The AssuredSAN Expansion Arrays or JBODs are hardware only models that ship with the storage array, drives, cables, Installation Guide, and Bronze support. The optional data protection software available in the 3000 Series extends snapshots, volume copy and remote replication features to JBODs.

With 2.5" Drives - 3120

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

PHYSICAL

Depth (excluding cables)	21.3 Inches / 54.0 cm
Height	3.5 Inches / 8.9 cm
Width	17.6 Inches / 44.7cm
Chassis weight	50.6 lbs / 23kg

With 3.5" Drives - 3130

Drives per array	up to 12
Max capacity per chassis	36TB

PHYSICAL

Depth (excluding cables)	23.7 Inches / 60.2 cm
Height	3.5 Inches / 8.9 cm
Width	17.6 Inches / 44.7 cm
Chassis weight	64 lbs. / 29kg



GENERAL

Product Family	3000 Series
Product Type	RAID, JBOD
Chassis Configuration	2U
Disk Architecture	6Gb SAS
Mounting Options	19" Rack, Rack tray
Max number of chassis	up to 8 (1 RAID, 7 JBOD)
Data protection	AssuredSnap™, AssuredCopy™, AssuredRemote™

DRIVE SUPPORT

3120	SAS - 146GB, 300GB 15K SAS - 300GB, 450GB, 600GB, 900GB 10K SAS - 500GB, 1TB nearline 7K SAS - SSD 150GB SLC
330	SAS - 300GB, 450GB or 600GB 15K SAS - 500 GB, 1TB, 2TB, 3TB 7K, SATA II - 500 GB, 1TB, 2TB, 3TB 7K, 3Gb SATA SSD - 32GB SLC, 64GB SLC, 80GB MLC SAS - SSD 150GB SLC

RAID

Levels Supported	0, 1, 3, 5, 6, 10 and 50
RAID Type	Hardware
Cache Memory	2GB per controller
Cache Backup	Battery-free protection w/super capacitors
Virtual disks per System	32
Volumes per virtual disk	256
Volumes per System	256
Super Capacitor Cache Backup	Yes
Cache Backup to Flash	Yes - Non-volatile

MANAGEMENT

SAS connect to RAID

POWER REQUIREMENTS - AC INPUT

Input Power Requirements	100-240VAC 50/60Hz
Max Input Power	436W maximum continuous
Heat Dissipation	1488 BTUs/hour

Bronze Rated - high efficiency
82% @ 20% load
86% @ 80% load
85% @ 100% load

TEMPERATURE AND HUMIDITY RANGES

Operating Temperature	41°F to 104°F (5°C to 40°C)
Shipping Temperature	-40°F to 158°F (-40°C to 70°C) 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 _A

SHOCK AND VIBRATION

Shock, Operational	5G's for 10 ms
Shock, Non-Operational	15G 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 arrays 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 HDD's have varying S&V performance characteristics.

HIGH-AVAILABILITY FEATURES

Redundant Hot-Swap Controllers	Yes
Redundant Hot-Swap Disk, Fans, Power	Yes
Dual Power Cords	Yes
Hot Standby Spare	Yes
Automatic Failover	Yes
Multi-Path Support	Yes
Snapshot with AssuredSnap™	Yes
Volume copy with AssuredCopy™	Yes
Remote replication with AssuredRemote™	Yes

REGULATORY

Safety	UL 60950-1, 1st edition, 2007-10-31 (USA) CAN/CSA-C22.2 No.60950-1-03, 1st Edition, 2006-7 (Canada) EN 60950-1:2006 (European Union) EC 60950-1:2001 (International) EN 60950-1:2001 +A1:2004 (GS)
Mark,,Germany)	CCC Mark (power supply only, China PRC)
Electromagnetic Compatibility Emissions	CFR 47 Part 15 Subpart B Class A (U.S.A.) ICES-003:2004 Class A (Canada) EN 55022:2006 +A1:2007 Class A (EU) EN 300 386 V1.4.1:2008 Class A (EU Telco) AS/NZS CISPR 22:2009 Class A (Australia, New Zealand) VCCI:2009-04 Class A (Japan) GOST R 51318.22-99 Class A (Russia) KN 22 Class A (S. Korea) CNS 13438:2006 Class A (Taiwan) EN61000-3-2:2006 (EU) EN 61000-3-3:1995 +A1:2001+A2:2005
Harmonics Flicker (EU)	EN 55024:1998 +A1:2001+A2:2003 (EU) EN 300 386 V1.4.1:2008 (EU Telco) GOST R 51318.24-99 (Russia) KN 24 (S. Korea)
Immunity	RoHS-6/6 Compliance, China RoHS, WEEE
RoHS and WEEE Country Approvals	United States, Canada, European Union (EU), Australia/New Zealand, Japan, China (PRC), Russia, Mexico, South Africa, Germany, South Korea, Taiwan

SUPPORT

Standard Hardware Warranty	3 years
Environmental Monitoring	SNMP, CLI, RAIDar 2.0, SMTP, SMI-S Provider
SMTP	Yes
Remote Diagnostics	Yes
Non-disruptive Updates	Yes

