Dot Hill 3520 and 3530
6Gb SAS-connected Arrays

dot HILL®

3530

3520

Benefits

Assured Data Protection
• AssuredSnap™ - 1000 snapshots
• AssuredCopy™ - 128 volume copies

Scalable Performance
• Dual or single RAID controller
• Data of 6Gb/sec. SAS 2.0
• up to 7 expansion units per system
• support for SAS, SATA, solid state drives
• max 8 chassis, up to 144 2.5" drives
• 264,000 measured IOPS

Built in Redundancy
• RAID 0, 1, 3, 5, 6, 10, 50
• Redundant, hot swap components
• Built-in schedule capability

Environmentally Responsible
• EcoStor™ Economically and
environmentally sound technologies
 - SimulCache™ - Low latency cache mirroring
 - Battery-free cache backup
 - DC power option
 - Drive-spin-down   **new!**
• RoHS-6 and WEEE compliant

Rugged Chassis
NEBS Level 3 Compliant
MIL STD 810F Compliant (Storage Requirements)
European Telco Compliant

Performance for Clustered Server Environments
The Dot Hill 3520 and 3530 offer exceptional performance in direct attached storage environments, and 4 ports per controller. With 8 total SAS 2.0 ports these storage arrays offer exceptional performance - 6Gb over 4 lanes of SAS connections, for total throughput of 24Gb per SAS 2.0 connection. These can perform even faster than fibre channel alternatives, and are much easier to implement. Directly attaching storage to servers and workstations can answer an immediate storage need while avoiding the complexity of switched SAN environments.

Applications
• Centralized storage for clustered servers
• Low cost switchless SANs
• Video streaming, video-on-demand, high definition imaging, video non-linear editing and post production
• Directly attached to blade servers

Data Protection
The 3500 series comes with optional AssuredSnap™ and AssuredCopy™ data protection software. With up to 1000 snapshots capability, they offer necessary protection for business critical applications such as email.

Eco-friendly
The 3000 Series also features a number of eco-friendly enhancements such as drive-spin-down capability and Bronze rated power supplies for reduced operating costs. The 3520/3530 also include Dot Hill's patented EcoStor™ "green" battery-free alternative for cache memory, which leverages a combination of super capacitors and flash memory that outlast traditional batteries. Business can lower maintenance and disposal costs, and reduce server and application down time associated with battery replacement.

Storage Made Easy
The 3520/3530 SAS 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.

■ 3520 24-DRIVE ARRAY FEATURES..........................

Drive size	2.5-inch drives
Drives per array	up to 24, 144 total
Max capacity per chassis	12TB

■ 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	44 lbs / 20kg
w/146GB drives	60 bs / 27.2kg

■ 3530 12-DRIVE ARRAY FEATURES ....

Drive size	3.5-inch drives
Drives per array	up to 12, 96 total
Max capacity per chassis	24TB

■ 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	44lbs. / 20kg
w/500GB drives	68lbs. / 30.84kg

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3520/3530 specifications

■ GENERAL

Host speed	6Gb SAS
IOPs	264,000
Data protection	AssuredSnap™, AssuredCopy™,

■ EXPANSION

Max number of chassis	up to 8 (1 RAID, 7 JBOD)
Expansion units	Dot Hill 3120, 3130

■ PROTOCOLS AND STANDARDS

ICMP (RFC 792, 950, 1256)	TCP (RFC 793)
IP (RFC, 894, 1092)	SCSI-2 and SCSI-3

■ HOSTS

initiators	SAS 2.0 (Serial-attached SCSI)
Interface Type	SAS SFF8088
External Ports	4/8 SAS (Single/Dual Controller)

■ DRIVES

Drive Types	SAS, Nearline SAS, SATA, SSD

■ RAID

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

■ MANAGEMENT

Interface Types	10/100 Ethernet
Interface Types	Mini USB
Protocols Supported	SNMP, SSL, SSH, SMTP, SMI-S Provider, HTTP(S)
Management Consoles	WEB GUI, CLI
Management Software	RAIDar 2.0

■ POWER REQUIREMENTS - AC INPUT

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

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

■ POWER REQUIREMENTS - DC INPUT

Voltage	-36 to -72VDC, -48/-60V nominal
Max Input Power	436W maximum continuous
Heat Dissipation	1488 BTU/hour

■ 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	10G's for 10 ms (3520)
	5G's for 10 ms (3530)
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

■ 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

■ REGULATORY

Safety	UL 60950-1, current edition (USA)
	CAN/CSA-C22.2 No.60950-1 current edition (Canada)
	EN 60950-1 current edition (European Union)
	IEC 60950-1 current edition (International)
	CCC Mark (power supply only, China PRC)
Electromagnetic Compatibility Emissions	CFR 47 Part 15 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 Class A (Russia)
	KN 22 Class A (S. Korea)
	CNS 13438 Class A (Taiwan)
Harmonics	EN61000-3-2 (EU)
Flicker	EN 61000-3-3 (EU)
Immunity	EN 55024 (EU)
	EN 300 386 (EUTelco)
	GOST R (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, South Africa, Germany, South Korea, Taiwan

■ SUPPORT

Software Warranty	90 days
Standard Hardware Warranty	3 years
Environmental Monitoring	SNMP, CLI, RAIDar 2.0, SMTP, SMI-S Provider
Phone-home Capability	Yes
Remote Diagnostics	Yes
Non-disruptive Updates	Yes
Non-disruptive Volume Expansion	Yes for primary volumes and snapshot volumes and snapshots