

# Dot Hill 3120 and 3130 JBOD Expansion Arrays



## Benefits

### Built in Redundancy

- Redundant, hot swappable power units, IO modules, and fans make maintenance easy
- Hot swappable drives

### Scalable Performance

- up to 7 expansion units per system
- max 144 drives - 3120, 96 - 3130

### Rugged Chassis

NEBS Level 3 Compliant

MIL STD 810F Compliant (Storage Requirements)

European Telco Compliant

## Expand your SAN as your Business Grows with easy, scalable tiered storage

As your need for storage increases, Dot Hill provides an easy to deploy and cost effective 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.

### Use the 3120 with...

The 3120 JBOD expansion units can be deployed with Dot Hill's 2.5-inch RAID storage arrays:

- 3720 8Gb Fibre Channel Storage Array
- 3920 8Gb Fibre Channel & 1Gb iSCSI Storage Array

### Use the 3130 with...

The 3130 JBOD expansion units can be deployed with Dot Hill's 3.5-inch RAID storage arrays:

- 3730 8Gb Fibre Channel Storage Array
- 3930 8Gb Fibre Channel & 1Gb iSCSI Storage Array

| ■ 3120 24-DRIVE ARRAY FEATURES ..... |                 |
|--------------------------------------|-----------------|
| Drive size                           | 2.5-inch drives |
| Drives per array                     | up to 24        |
| 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 w/146GB drives | 44 lbs / 20kg<br>60 lbs / 27.2kg |

| ■ 3130 12-DRIVE ARRAY FEATURES ..... |                 |
|--------------------------------------|-----------------|
| Drive size                           | 3.5-inch drives |
| Drives per array                     | up to 12        |
| 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 w/500GB drives | 44lbs. / 20kg<br>68lbs. / 30.84kg |

# 3120/3130 JBOD specifications

## ■ GENERAL

|                                |  |
|--------------------------------|--|
| Product Family                 | 3000 Series                                  |
| Product Type                   | JBOD   |
| Chassis Configuration          | 2U   |
| Disk Architecture              | 6Gb SAS                                      |
| Data Management Services (DMS) | AssuredRemote™<br>AssuredSnap™, AssuredCopy™ |

## ■ DRIVES

|             |                |
|-------------|----------------|
| Drive Types | 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     | 64  |
| 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

SAS connect to RAID

## ■ POWER REQUIREMENTS - AC INPUT

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

## ■ 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)<br>non-condensing    |

## ■ DECLARED ACOUSTIC NOISE LEVELS

|                |              |
|----------------|--------------|
| Sound Power    | LWAd=6, 75 B |
| Sound Pressure | LpAm - 55dB  |

## ■ SHOCK AND VIBRATION

|                            |   |
|----------------------------|---|
| Shock, Operational         | 10G's for 10 ms (3720)  |
| Shock, Non-Operational     | 5G's for 10 ms (3730)   |
| Vibration, Operational     | 15G 11ms, half sine   |
| Vibration, Non-Operational | 5Hz to 500Hz, 0.21Grms flat spectrum                              |
|                            | 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 |
| Remote Replication with AssuredRemote™ | Yes |

## ■ REGULATORY

|                               |   |
|-------------------------------|---|
| Safety                        | UL 60950-1, 1st edition, 2007-10-31 (USA)<br>CAN/CSA-C22.2 No.60950-1-03,<br>1st Edition, 2006-7 (Canada)<br>EN 60950-1:2006 (European Union)<br>IEC 60950-1:2001 (International)<br>EN 60950-1:2001 +A11:2004 (GS Mark., Germany)<br>CCC Mark (power supply only, China PRC) |
| Electromagnetic Compatibility | EMI<br>ICES-003:2004 Class A (Canada)   |
| Emissions                     | CFR 47 Part 15 Subpart B Class A (U.S.A.)<br>EN 55022:2006 +A1:2007 Class A (EU)<br>EN 300 386 V1.4.1:2008 Class A (EU Telco)<br>AS/NZS CISPR 22:2009 Class A (Australia, New Zealand)<br>VCCI:2009-04 Class A (Japan)  |
| Harmonics                     | GOST R 51318.22-99 Class A (Russia)<br>KN 22 Class A (S. Korea)   |
| Flicker                       | CNS 13438:2006 Class A (Taiwan)   |
| Immunity                      | EN61000-3-2:2006 (EU)<br>EN 61000-3-3:1995 +A1:2001+A2:2005 (EU)<br>EN 55024:1998 +A1:2001+A2:2003 (EU)<br>EN 300 386 V1.4.1:2008 (EU Telco)<br>GOST R 51318.24-99 (Russia)   |
| RoHS and WEEE                 | KN 24 (S. Korea)<br>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 |