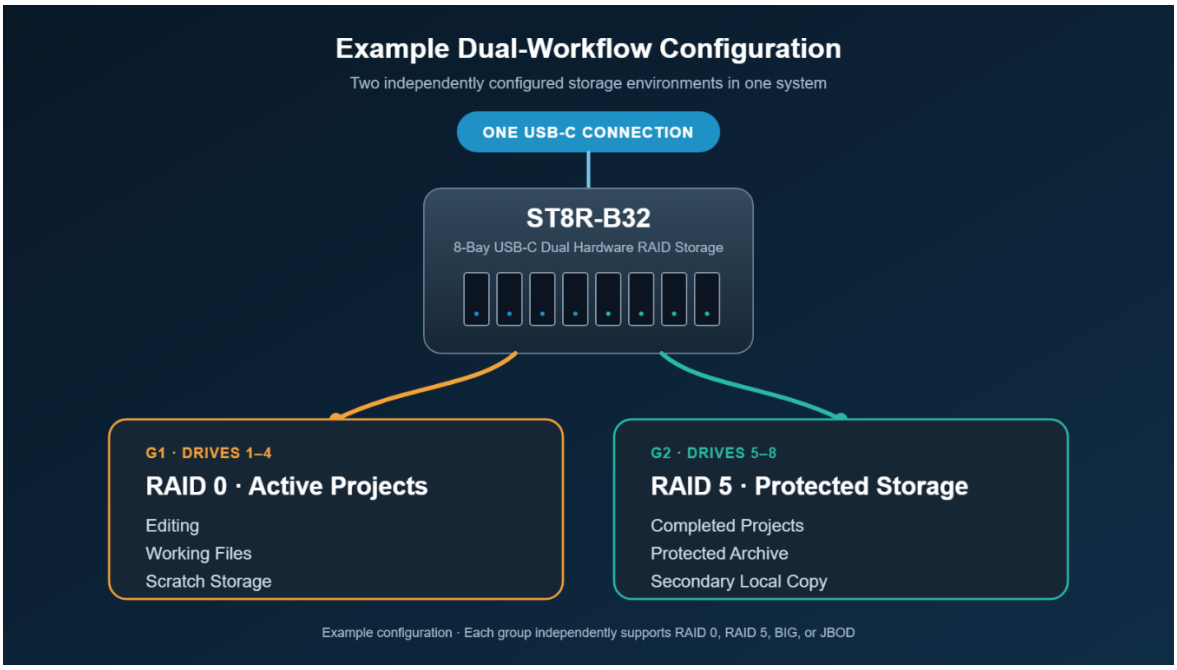
ST8R-B32 – 8-Bay USB-C Dual Hardware RAID Storage

Two RAID Workflows. One Professional DAS.

One Enclosure. One USB-C Connection. Two RAID Groups. Up to 240TB Raw Capacity.

Overview

The ST8R-B32 is an 8-bay USB-C DAS with two independent 4-drive hardware RAID groups, allowing separate storage workflows within a single enclosure. Each group supports RAID 0, RAID 5, BIG, or JBOD, enabling active and protected storage to operate side by side. **Dedicated hardware RAID controllers manage storage operations directly within the enclosure, eliminating dependence on host-based RAID software.**



Key Highlights

8	2	1	Up to 240TB
Drive Bays	Independent 4-Drive RAID Groups	USB-C Host Connection	Raw Capacity

Why Use One ST8R-B32 Instead of Two 4-Bay DAS Systems?

Feature	Two Separate 4-Bay DAS Systems	ST8R-B32
Enclosures	2	1
Power Supplies	2	1
Host Connections	Typically 2	1
RAID Environments	2	2
Monitoring	Managed as two devices	Both controllers monitored through one Windows utility
Installation	Two systems to connect and position	One integrated system
Best Fit	Greater physical separation	Simplified dual-workflow storage

Why ST8R-B32?

- **Separate Active and Protected Storage**
  Keep performance-focused and protected data environments independent.
- **Flexible RAID Per Workflow**
  Configure G1 and G2 independently as RAID 0, RAID 5, BIG, or JBOD.
- **Reduce Hardware Footprint**
  Run two storage workflows without purchasing a second DAS.
- **Single-Cable Simplicity**
  Access both RAID groups through one USB-C connection.

Dual RAID Architecture

RAID Group 1	RAID Group 2
Drive 1 + Drive 2 + Drive 3 + Drive 4	Drive 5 + Drive 6 + Drive 7 + Drive 8
RAID 0	RAID 5
Active Projects	Protected Project Storage

1. One System. Two Independent Storage Groups.
2. G1 and G2 can each be independently configured as RAID 0, RAID 5, BIG, or JBOD.
3. Both groups are accessible through the same USB-C connection.

Key Features

1. Dual Independent Hardware RAID Controllers

Two independent hardware RAID controllers allow you to configure and manage two separate RAID arrays simultaneously in a single 8-bay enclosure.

2. Flexible RAID Configurations

Supports RAID 0, RAID 5, BIG, and JBOD, providing flexible options for high-speed performance, data protection, and expanded storage capacity.

3. USB-C Interface with Up to 20Gb/s Aggregate Bandwidth

USB 3.2 Gen 2x2 provides up to 20Gb/s of aggregate bandwidth shared by both RAID groups.

4. Independent RAID Status Monitoring

Dedicated LED indicators for each controller provide clear status information for Drive Access, Rebuilding, Drive Failure, and Rebuilding Progress (25% / 50% / 75% / 100%).

5. Independent Cooling & Alarm Control

Each RAID group has a dedicated 80mm system fan with independent High/Low speed control and its own Buzzer On/Off switch. A separate 40mm fan provides dedicated power-supply cooling.

6. Real-Time Temperature & Fan Monitoring

Temperature monitoring and fan-failure detection with LED indicators and audible buzzer alerts help support stable system operation.

7. Windows GUI Monitoring Utility

Monitor both RAID controllers—including drive status, system temperature, fan operation, failure alerts, and rebuild progress—through a single graphical interface on Windows. Storage access is supported on Windows, macOS, and Linux.

8. Hot-Swappable Lockable Drive Trays

Supports hot-swappable 3.5-inch HDDs and 2.5-inch HDDs/SSDs with lockable trays. The pin-key lock helps reduce the risk of accidental drive removal during operation.

9. Mobile Backup with Easy Data Vault

Back up photos and videos directly from compatible USB-C iPhone and iPad devices to high-capacity local storage.

Choosing the Right RAID Mode: A Use-Case Guide

RAID Mode	Key Feature	Ideal For
RAID 0	Speed Priority	Editing, scratch storage, and fast data transfer. No fault tolerance.
RAID 5	Performance & Protection	Important data, project files, and long-term storage. Protects against a single-drive failure.
BIG	Large Capacity	Combining the four drives within one RAID group into a single large storage volume.
JBOD	Independent Drives	Individual drive management, testing, replacement, and data transfer.

RAID is not a substitute for backup. Maintain a separate backup of important data.

Common Deployment Applications

1. Professional Video Editing

G1 — RAID 0: High-Speed Editing Workspace

G2 — RAID 5: Protected Project Storage

Handle demanding video editing workloads while keeping completed and important project data protected in the same enclosure.

2. Photography & Media Archive

G1 — BIG: Photo & Video Library

G2 — RAID 5: Protected Media Archive

Use one storage group for high-capacity media storage and the other for protected long-term archiving, keeping active and archived content independently managed.

3. Backup & Data Protection

G1 — RAID 5: Primary Local Storage

G2 — RAID 5: Secondary Local Copy

Maintain two separately managed RAID 5 environments in one enclosure for operational convenience. For critical data, keep another backup on a separate device or at another location.

4. Multi-Stage Data Workflow

G1 — RAID 0 / BIG: Active Working Data

G2 — RAID 5: Protected Data

Separate frequently accessed working data from important or completed data, allowing each RAID group to be configured according to its specific storage and protection needs.

5. Mobile Photo & Video Backup

Use Easy Data Vault to back up photos and videos directly from compatible USB-C iPhone and iPad devices to the ST8R-B32, providing high-capacity local storage for media backup and organization.

ST8R-B32 vs. a Conventional Single-Array 8-Bay DAS

Feature	Conventional Single-Array 8-Bay DAS	ST8R-B32
RAID Architecture	One 8-drive RAID array	Two independent 4-drive RAID groups
RAID Configuration	One mode applies to the complete array	G1 and G2 can use different modes
Storage Environments	One unified RAID environment	Two separately managed environments
Workflow Separation	Workloads share the same RAID configuration	Active and protected storage can use different configurations
Host Access	One primary storage environment	Both RAID groups are accessible through one USB-C connection
Best Fit	One large storage pool	Two storage workflows in one enclosure

A conventional 8-drive RAID 5 array may provide greater usable-capacity efficiency from one storage pool. The ST8R-B32 is designed for workflow separation and independent RAID configuration rather than the creation of one maximum-capacity 8-drive array.

RAID Mode Switching Procedure

Changing RAID modes may erase or make existing data inaccessible. Back up all important data and follow the latest product manual before changing modes.

Frequently Asked Questions

Q1. What RAID modes are supported?

A: Each 4-drive RAID group supports RAID 0, RAID 5, BIG, and JBOD.

Q2. Does ST8R-B32 support RAID 5?

A: Yes. G1 and G2 can each be independently configured as RAID 5, providing protection against one drive failure within the selected 4-drive group.

Q3. Can G1 and G2 use different RAID modes?

A: Yes. G1 and G2 can be configured independently. For example, G1 can use RAID 0 while G2 uses RAID 5 for protected project storage.

Q4. Can both RAID groups be accessed simultaneously?

A: Yes. Both groups are accessible through the same USB-C host connection and appear as separate storage environments or individual drives, depending on the selected RAID modes.

Q5. What is the advantage of having two independent RAID groups?

A: Two independent RAID groups allow you to create different storage environments and workflows in one enclosure. For example, one group can prioritize performance for active projects, while the other prioritizes drive-failure protection for important project data.

Q6. Why doesn't the ST8R-B32 support a single 8-drive RAID 5 array?

A: The ST8R-B32 is purpose-built for workflow separation rather than one large RAID environment.

Drives 1–4 form Group 1, while Drives 5–8 form Group 2. Each group can be independently configured as RAID 0, RAID 5, BIG, or JBOD.

The two groups cannot be combined into a single 8-drive hardware RAID array. If maximum usable capacity from one RAID 5 storage pool is the primary requirement, a conventional single-array 8-bay RAID system may be a better fit.

Q7. What is the maximum capacity?

A: Eight supported 30TB drives provide up to 240TB of total raw capacity. Actual usable capacity depends on the RAID mode, drive capacities, formatting, file system, and operating system.

Q8. Does USB-C automatically provide 20Gb/s?

A: No. The host port must support USB 3.2 Gen 2x2 to provide interface bandwidth up to 20Gb/s. Host systems without USB 3.2 Gen 2x2 support operate at the highest mutually supported USB speed. Actual performance also depends on the cable, installed drives, RAID mode, file system, workload, and system configuration. Mac systems without USB 3.2 Gen 2x2 support will typically operate at USB speeds up to 10Gb/s.

Q9. Does each RAID group receive 20Gb/s of bandwidth?

A: No. The USB 3.2 Gen 2x2 connection provides up to 20Gb/s of aggregate host-interface bandwidth shared by G1 and G2. It is not 20Gb/s per group. Performance may change when both groups are accessed simultaneously.

Q10. Can drives with different capacities be used?

A: Yes, but RAID capacity is calculated using the smallest drive within each group.
Matched drives of the same model and capacity are recommended for more predictable performance and compatibility.

Q11. How are drives displayed in JBOD mode?

A: In JBOD mode, each drive in the selected 4-drive group appears as an independent disk in the operating system. If both G1 and G2 are configured as JBOD, up to eight individual disks may be displayed.

Q12. Does RAID 5 replace backup?

A: No. RAID 5 protects against one drive failure within its group, but it does not protect against deletion, corruption, malware, enclosure failure, theft, physical damage, or multiple drive failures.

Q13. Can Easy Data Vault recognize both RAID groups?

A: Yes. On compatible USB-C iPhone and iPad devices, Easy Data Vault can access supported exFAT-formatted storage volumes presented by both RAID groups.

Q14. Can all drive bays use SSDs?

A: Yes. Every drive bay supports qualified 2.5-inch SATA SSDs, allowing the system to be configured entirely with SSDs. SSDs and HDDs can also be assigned to separate RAID groups—for example, SSDs in G1 and HDDs in G2. Within each RAID group, drives of the same model and capacity are recommended for more predictable performance and compatibility.

Product Specifications

Specification	ST8R-B32
Host Interface	USB 3.2 Gen 2x2 Type-C, up to 20Gb/s (Aggregate)
Supported Drives	8 × 3.5-inch / 2.5-inch SATA HDD/SSD
Drive Interface	SATA III 6Gb/s
Maximum Drive Capacity	Up to 30TB per drive

Specification	ST8R-B32
Maximum Raw Capacity	Up to 240TB*
RAID Architecture	2 independent 4-drive hardware RAID groups
RAID Modes	RAID 0 / 5 / BIG / JBOD per group
OS Compatibility	Windows / macOS / Linux
System Cooling	2 × 80mm system fans, each with independent High/Low speed control
Alarm Control	2 × Buzzer On/Off switches, one per RAID group
Physical Security	Lockable trays / Kensington Security Slot
Power Supply	Built-in 250W, AC 100–240V, with dedicated 40mm cooling fan
Dimensions	295 × 140 × 280 mm
Weight	Approx. 2.4 kg, excluding drives
Compliance	CE / FCC / RoHS
Included Accessories	1 x USB-C to USB-C cable 1 x Power cord 1 x Drive screws and keys 1 x Quick Installation Guide

*Actual usable capacity depends on RAID mode, drive capacity, formatting, and operating system.

Two RAID Workflows. One Professional DAS.

The ST8R-B32 lets creative professionals run active and protected storage side by side without adding a second enclosure.

One enclosure.
One USB-C connection.
Two independent RAID workflows.