

RAIDON iR5440H

Compact 4-Bay Hardware RAID 5 + Dedicated Hot Spare Module

Reliable local storage for space-constrained industrial PCs, embedded systems, edge servers, surveillance platforms, and professional workstations.

RAID 5 + Hot Spare

4 × 2.5" SATA

Fits One Standard 5.25-Inch Bay

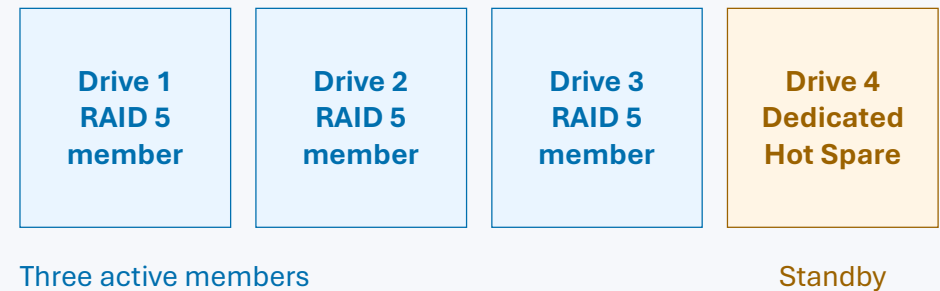


One-Line Positioning

The iR5440H automatically begins rebuilding on its Dedicated Hot Spare when an active drive fails.

Rebuilding starts without waiting for on-site drive replacement.

NORMAL STANDBY



Customer Pain

SSD / HDD failures can happen suddenly, and on-site service may not arrive immediately.

Product Answer

An active-drive failure triggers the hardware RAID controller to rebuild onto the spare.

Sales Focus

Prioritize availability and service flexibility over maximum usable capacity.

Target Customers & Buying Triggers

First qualify the customer's on-site service cost and data availability requirements.

Industrial PCs / Embedded

Limited space, long uptime, and inconvenient drive replacement.

Edge / Compact Servers

Remote sites, short-depth chassis, and local data buffering.

Surveillance / Security

Continuous recording, front maintenance, and visible fault status.

System Integrators

Need a serviceable hardware RAID module for compact systems.



Buying Trigger Signals

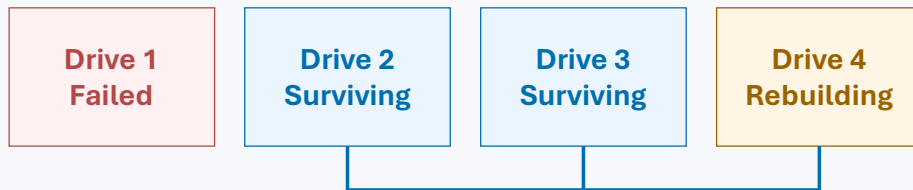
- Unattended / remote deployments
- Limited space plus multiple 2.5" drives
- Rebuild should not wait for a technician
- Front-panel LEDs / buzzer required

Sales focus: qualify maintenance costs before capacity.

RAID 5 + Dedicated Hot Spare

The iR5440H automatically begins rebuilding on its Dedicated Hot Spare when an active drive fails.

AFTER ONE ACTIVE DRIVE FAILS



Controller rebuilds from the two surviving members

Rebuild begins before a technician arrives

RAID 5 tolerates one active-drive failure.

Hot Spare does not provide dual-drive fault tolerance or replace independent backup.

1

Normal standby

Three drives form RAID 5. The fourth drive waits as the Dedicated Hot Spare.

2

Failure and rebuild

The controller uses the two surviving members to rebuild onto the original Hot Spare.

3

Rebuild complete

The original Hot Spare becomes an array member. No standby drive remains yet.

4

Replace failed drive

After rebuilding, insert a qualified new drive. It automatically becomes the next Hot Spare.

Product Highlights

Storage Access: Windows / Linux

4 × 2.5-inch
SATA HDD/SSD

Single SATA III 6Gb/s
shared host bandwidth

Hot-swappable, lockable
full-metal trays



STATUSGUARD GUI:
Windows Only

LED + buzzer alerts:
drive, fan, overheat

Full-metal chassis
40 mm low-noise fan

Hot Spare and automatic rebuilding run on the hardware RAID controller, independently of the GUI.

Selection Guide: iR5440H vs. iR5440

Choose between automatic rebuild readiness and maximum usable RAID 5 capacity.

	iR5440H	iR5440
Primary RAID	RAID 5 + Dedicated Hot Spare	Four-drive RAID 5
Usable Capacity	Approx. 2-drive capacity	Approx. 3-drive capacity
Failure Response	Automatically begins rebuilding on the installed spare	Install a replacement drive before rebuilding
Best Fit	Remote, unattended, availability-focused systems	Easily serviced systems prioritizing usable capacity

Capacity basis: four equal-capacity drives, before formatting.

When to recommend iR5440H

Choose iR5440H when the customer will trade one drive of usable capacity for rebuilding that begins before on-site service.

Compare the value of one drive’s usable capacity with the cost of urgent on-site service.

Applications & Entry Messaging

Adapt the same core value by industry: reliable local storage plus serviceability.

Industrial PCs

Add serviceable RAID in limited space and reduce on-site downtime pressure.

Edge Servers

Retain local data at remote sites. Rebuilding starts automatically after an active-drive failure.

Surveillance & Security

In continuous-recording scenarios, highlight fault alerts and front drive replacement.

Professional Workstations

RAID 0 for temporary performance workloads. RAID 5 + Hot Spare for project availability.

Storage Appliances / SI

Use it as a compact, serviceable hardware RAID building block.



Front-access drive replacement

Automatic rebuild first.

On-site replacement after rebuild completion.

Handling Common Objections

Keep sales messaging accurate and avoid overpromising.

Q: Is Hot Spare the same as backup?

A: No. It improves availability after a drive failure; important data still needs independent backup.

Q: What usable capacity do four 2TB drives provide?

A: About 4TB before formatting; three drives form RAID 5 and one serves as Hot Spare.

Q: Why does JBOD show only one drive?

A: JBOD requires host SATA Port Multiplier support; other modes are presented as a single volume.

Q: Can it tolerate two simultaneous drive failures?

A: No. RAID 5 tolerates one active-drive failure; a second failure during rebuild can put data at risk.

Q: Which operating systems are supported?

Storage Access: Windows / Linux
STATUSGUARD GUI: Windows Only
Hardware RAID manages Hot Spare and rebuilding.

Sales bottom line

Independent backup remains necessary.
RAID 5 does not tolerate two active-drive failures.

Specification Quick Reference

Model	iR5440H	Monitoring	Fan failure / overheat / HDD/SSD failure
Host Interface	SATA III 6Gb/s ×1 (shared bandwidth)	Rebuild Display	25% / 50% / 75% / 100%
Supported Drives	2.5" SATA III/II/I HDD/SSD ×4	Cooling	40 mm low-noise fan
RAID Modes	RAID 0 / RAID 5 + Hot Spare / BIG / JBOD	OS / GUI	Storage Access: Windows / Linux STATUSGUARD GUI: Windows Only
Power Input	15-pin SATA power connector ×1	Dimensions	140 × 148 × 43 mm (L × W × H)

Installation: one standard 5.25-inch bay

Connect one SATA host cable and one 15-pin SATA power connector. Keep fan airflow clear.

40 mm Fan

