



# AccuRAID AR316F16(R)

3U 16-Bay 6G SAS/SATA to 16G FC \* 4 RAID 6 Single / Redundant Controller Rackmount



The **AccuRAID AR316F16(R)** is a 3U redundant controller rack-mountable RAID solution designed for data centers, file servers, backup, audio/video streaming, and digital video recording. With redundant components including a controller (AR316F16R), cooling fans, and power supply, the AR316F16(R) provides a high availability solution for mission critical applications. With a capacity of up to 96TB, this array is perfect for any application that requires a high volume storage solution. With a four channels high-performance Fibre Channel (2 channels per controller) host interface and cutting edge SAS and SATA dual hard drive support, the AR316F16(R) is guaranteed to deliver 16Gpbs performance per channel. Users could flexibly choose between high performance SAS drives or cost-effective / high capacity SATA drives (SATA drives required optional MUX board). With SAS expander support, the AR316F16(R) is capable of over 1PB capacity with additional AS316X6R JBOD expansion units. The feature-rich array allows the user to configure the unit to suit current demands and expand later when needed. The array utilizes sixteen hot-swappable 3.5" trays with 2.5" screws holes for 3.5" and 2.5" SSD/SAS/SATA drives, allowing quick replacement and simple trouble-shooting. The AR316F16(R) RAID subsystem could also be easily scaled to RAID levels 0, 1, 0+1, 3, 5, 6, 30, 50, 60 or JBOD configurations. Featuring durable, heavy duty steel housing and a user-friendly LCD panel, the AR316F16(R) will meet all data intensive application demand.



## Architecture

- Redundant controller built-in to provide high availability and high performance. (AR316F16R)
- 800MHz processor with 2GB on-board ECC cache memory (upgradeable to 8GB) per controller.
- Support both 3.5" and 2.5" form factor hard drives and SSD.
- 6G SAS RAID 60 ASIC engine, providing the highest level of data protection.
- Four channels Fibre Channel 16Gbps connector supporting fail-over (2 channels per controller).
- Supports SAS JBOD (AS316X6R) expansion with up to total of 256 devices.
- Redundant and hot-swappable power supply and cooling fans.
- O/S-Independent and host transparent RAID solution.

## RAID

- Supports JBOD, RAID 0, 1, 1E, 0+1, 3, 5, 6, 30, 50 and 60 with hot spare and multiple volumes.
- RAID 6 tolerates multiple drive failures without downtime or data loss, providing the most advanced level of data protection.
- Supports online array roaming, online RAID level / stripe size migration and online capacity expansion.
- Hot swappable drives that support hot spare and automatic hot rebuilding with automatic drive insertion / removal detection.
- NVRAM transaction log and S.M.A.R.T. to improve the RAID system integrity, reliability, and availability.

## Management

- Embedded enclosure management through WEB GUI, LCD control panel, and online RAID management via RS-232 port.
- Intuitive, yet comprehensive GUI for configuration and monitoring from remote and local locations.
- Field-upgradeable firmware in flash ROM, redundant RAID controller firmware upgrade via RS-232 and WEB GUI

<b>Controller</b>	Single (AR316F16) / Dual Redundant Controller (AR316F16R)
<b>HDD Trays</b>	16 Hot-Swappable 3.5" (2.5" form factor supported via screw holes)
<b>RAID Level</b>	0, 1, 0+1, 3, 5, 6, 30, 50, 60, JBOD
<b>Maximum Capacity</b>	96TB, Expandable to over 1PB
<b>Auto Rebuilding</b>	Yes
<b>Hot-Spare</b>	RAID 1, 1+0, 3, 5, 6, 30, 50, 60
<b>Host Interface &amp; Transfer Rate</b>	Dual (AR316F16) / Four Fibre Channel (16 Gbps) (AR316F16R) (2 FC Channels per channels)
<b>Expansion Ports</b>	Mini-SAS x 1; expandable to 7 JBOD arrays (AS316X6R)
<b>Drive Interface</b>	6G SAS / 6G SATA (Additional MUX board required when use with SATA drives and Redundant Controller Option)
<b>Cooling Fan</b>	2 Hot-Swappable Modules & Blowers
<b>Power Supply</b>	500W X 2 Redundant
<b>Controller Interface</b>	LCD Panel, RS232, RJ-45 Ethernet
<b>Dimension (in) &amp; Weight (lb)</b>	19"W x 21"D x 5.5"H & 47 lb
<b>Safety Regulations</b>	CE, FCC, UL, RoHS
<b>Limited Warranty</b>	3 Years

