

# Areca Thunderbolt Product Performance Report



## Product Testing:

1. ARC-8050T2 8-Bays Thunderbolt 2 to SAS RAID Storage

## Function Advantages:

FEATURES	BENEFITS
Bootable Drive Support	Provide user the capability of adding bootable drive via Thunderbolt on Apple thunderbolt-capable machine.
Advanced Configuration	Provide optimized parameter to adjust controlled firmware behavior for smooth data streaming.
Automatic On/Off Power Feature	Turn Areca Thunderbolt RAID storage power in unison with the host computer power status for data integrity.
Front Panel LCD and Buttons	Easy access for configuration and status report.
Controller-level Hardware Encryption	Board-level hardware encryption manages any kinds of drives attached to ARC-8050 series without impacting the performance for higher levels of security.
BBM Support	Supports a battery backup option that protects all data in ARC-8050 series cache memory in the event of unexpected power outage for data availability.



1. Areca Thunderbolt products perfect performance for Video editing ◦
2. Stable performance result to ensure no dropped frames during read and write ,data input and output ◦

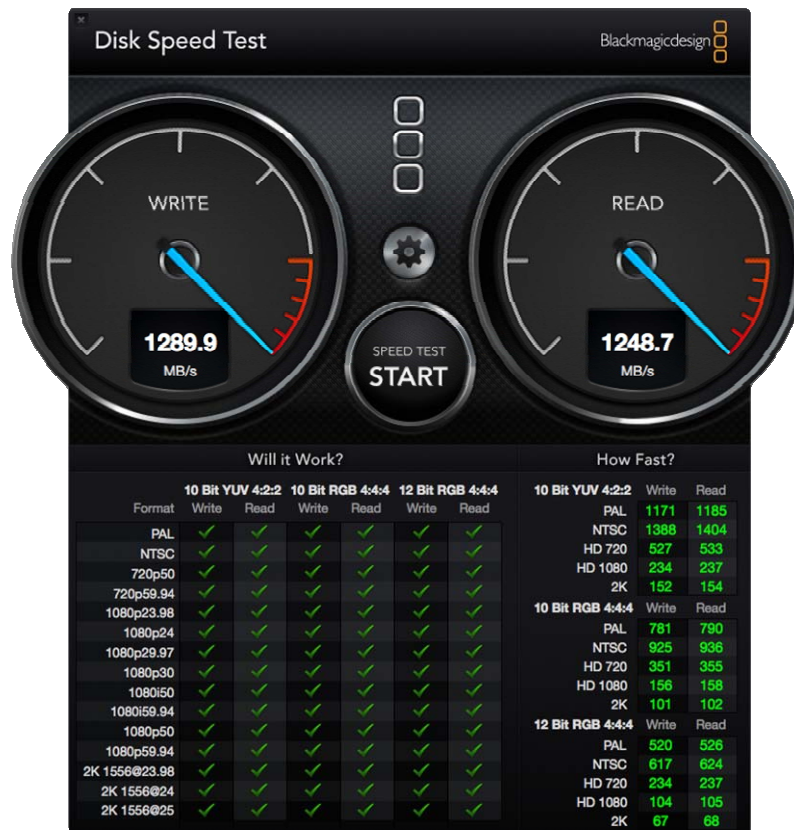


## 1. ARC-8050T2

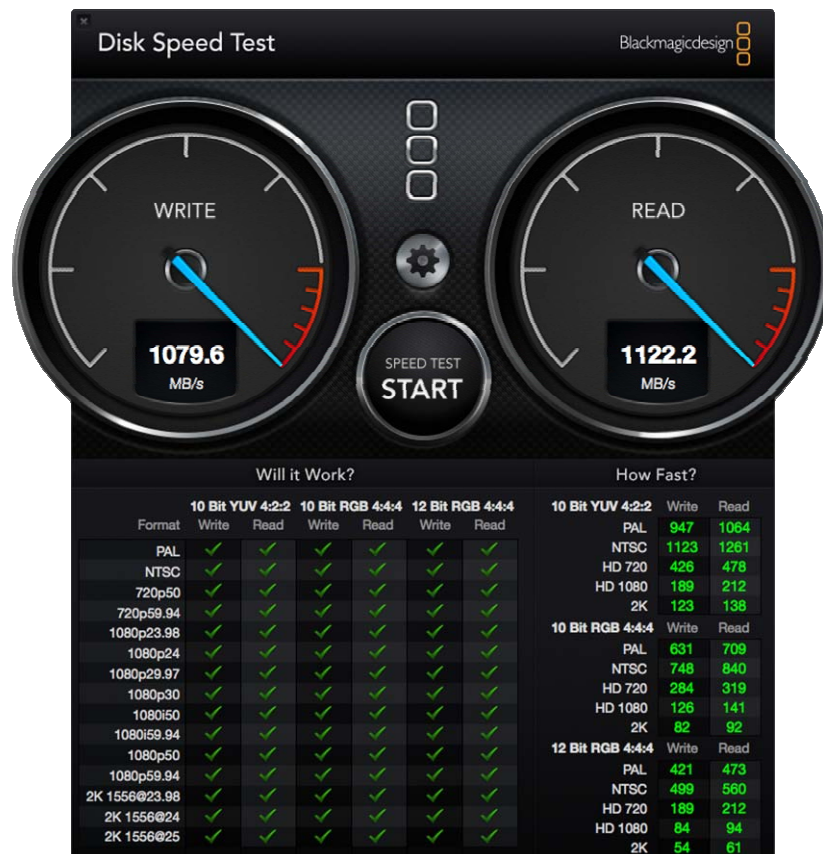
Environment: MAC OS 10.9.1/MacBook Pro Retina, Late 2013, 8 \* 4TB HUS724040ALA640

### (A). Blackmagic Disk Speed Test

(a). RAID Level: RAID 0

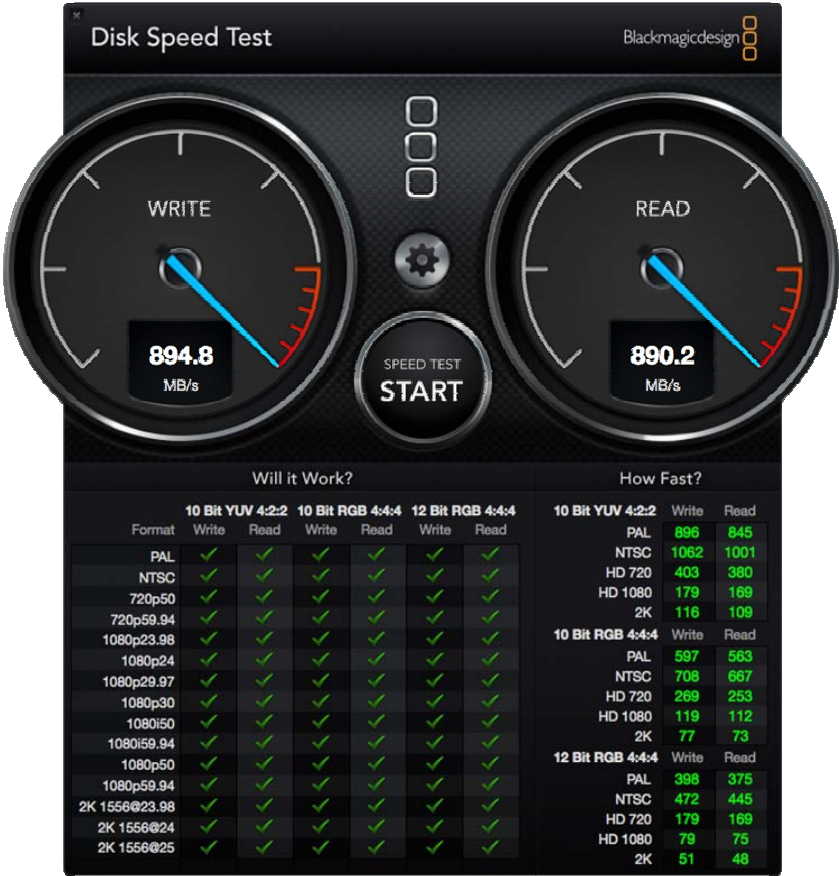


(b). RAID Level: RAID 5

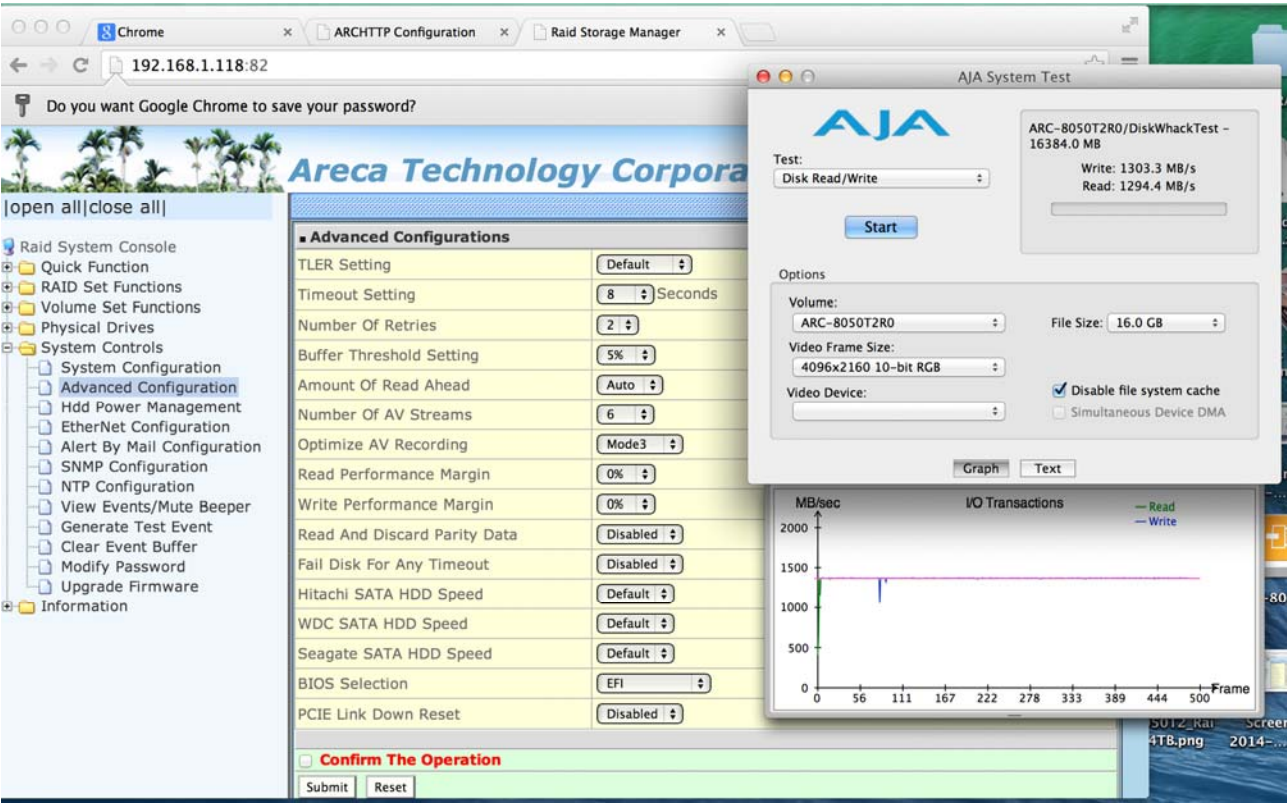




(c). RAID Level: RAID 6



(B). AJA Test  
(a). RAID Level: RAID 0



(b). RAID Level: RAID 5

The screenshot displays the Areca Technology Corporation RAID Storage Manager interface. The left sidebar shows a tree view with 'Advanced Configuration' selected. The main panel, titled 'Advanced Configurations', lists various settings for the RAID system, including TLER Setting (Default), Timeout Setting (8 Seconds), Number Of Retries (2), Buffer Threshold Setting (5%), Amount Of Read Ahead (Auto), Number Of AV Streams (6), Optimize AV Recording (Mode3), Read Performance Margin (0%), Write Performance Margin (0%), Read And Discard Parity Data (Disabled), Fail Disk For Any Timeout (Disabled), Hitachi SATA HDD Speed (Default), WDC SATA HDD Speed (Default), Seagate SATA HDD Speed (Default), BIOS Selection (EFI), and PCIE Link Down Reset (Disabled). At the bottom, there is a 'Confirm The Operation' section with 'Submit' and 'Reset' buttons.

Overlaid on the right is the 'Aja System Test' window. It shows the test configuration for 'ARC-8050T2R5/DiskWhackTest - 16384.0 MB'. The test results are: Write: 1040.8 MB/s and Read: 1139.8 MB/s. The 'Options' section includes 'Volume: ARC-8050T2R5', 'File Size: 16.0 GB', 'Video Frame Size: 4096x2160 10-bit RGB', and 'Video Device:'. The 'Disable file system cache' option is checked. A graph titled 'IO Transactions' shows 'MB/sec' on the y-axis (0 to 2000) and 'Frame' on the x-axis (0 to 500). The graph shows two data series: 'Read' (green line) and 'Write' (blue line). The 'Read' series is relatively stable around 1100 MB/sec, while the 'Write' series shows a significant spike at the beginning of the test, reaching nearly 2000 MB/sec, before settling around 1000 MB/sec.

(c). RAID Level: RAID 6

The screenshot displays the Areca Technology Corporation RAID Storage Manager interface, similar to the one in (b). The left sidebar shows a tree view with 'Advanced Configuration' selected. The main panel, titled 'Advanced Configurations', lists various settings for the RAID system, including TLER Setting (Default), Timeout Setting (8 Seconds), Number Of Retries (2), Buffer Threshold Setting (5%), Amount Of Read Ahead (Auto), Number Of AV Streams (6), Optimize AV Recording (Mode3), Read Performance Margin (0%), Write Performance Margin (0%), Read And Discard Parity Data (Disabled), Fail Disk For Any Timeout (Disabled), Hitachi SATA HDD Speed (Default), WDC SATA HDD Speed (Default), Seagate SATA HDD Speed (Default), BIOS Selection (EFI), and PCIE Link Down Reset (Disabled). At the bottom, there is a 'Confirm The Operation' section with 'Submit' and 'Reset' buttons.

Overlaid on the right is the 'Aja System Test' window. It shows the test configuration for 'ARC-8050T2R6/DiskWhackTest - 16384.0 MB'. The test results are: Write: 977.3 MB/s and Read: 1032.8 MB/s. The 'Options' section includes 'Volume: ARC-8050T2R6', 'File Size: 16.0 GB', 'Video Frame Size: 4096x2160 10-bit RGB', and 'Video Device:'. The 'Disable file system cache' option is checked. A graph titled 'IO Transactions' shows 'MB/sec' on the y-axis (0 to 2000) and 'Frame' on the x-axis (0 to 500). The graph shows two data series: 'Read' (green line) and 'Write' (blue line). The 'Read' series is relatively stable around 1000 MB/sec, while the 'Write' series shows a significant spike at the beginning of the test, reaching nearly 2000 MB/sec, before settling around 1000 MB/sec.