

# ARC-1330-8i/4i4x/8x

## (8 Ports PCIe 3.0 12Gb/s SAS Host Adapters)

The ARC-1330 series is a low profile host adapter. It brings the fastest available connections to SAS data transfer rates of 12, 6, and 3 Gb/s per lane and SATA data transfer rates of 6 and 3Gb/s per lane interface storage on any computer, workstation and server with PCI Express 3.0 interface.

The adapters are backwards compatible with existing and future RAID, and expander solutions. It provides maximum bandwidth and I/O connectivity for high-end server-based storage systems with internal storage or when connecting to large-scale storage enclosures.

### Highlights

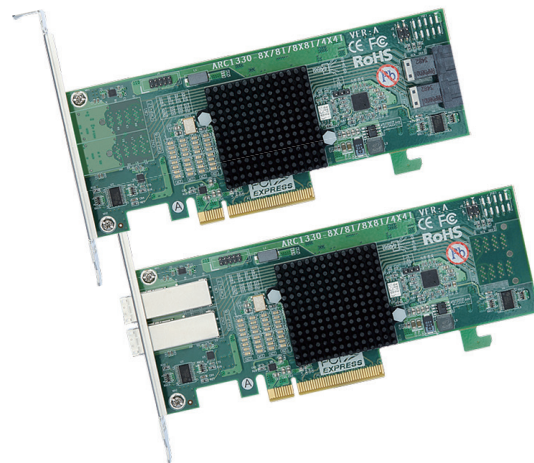
- PCIe 3.0 x8 lanes ( x8, x4, and x1 lane widths)
- Up to 12Gb/s transfer rates per SAS port
- Support for 8 internal, 4 internal/4 external, 8 external 12Gb/S SAS and SATA ports
- Connects to SAS and SATA HDDs or SSDs
- API library for customer to write monitor utility
- Support SGPIO interface for internal port
- System status indicates through global HDD activity/fault header
- Low profile form factor

### Overview

ARC-1330 series host adapters provide a blazing-fast storage connectivity solution with enhanced reliability and performance and a wide variety of internal and external connector configurations to support any application and tiered storage solution. The SAS host adapters enable large-scale direct attach storage (DAS) arrays through external 12Gb/s ports, driving up to 128 end-point devices for SFF-8644 connector. With connectivity options including 8-internal ports, 4-internal/4-external and 8-external ports, ARC-1330 series 12Gb/s host adapters are ideal for large capacity external server storage RAID and no-RAID enclosure.

### Unparalleled Performance - PCIe 3.0 and 12Gb/s SAS

Areca PCIe 3.0 x 8 lanes 12Gb/s SAS host adapters are able to connect to 12Gb/s, 6Gb/s and 3Gb/s SATA SAS/SATA hard disk drives, allowing for tiered storage that optimizes costs and performance. This is because SAS adapters leverage a common electrical and physical connection interface that is compatible with SATA technology. SAS drives are optimal when speed and reliability are of the utmost concern, while SATA drives are appropriate when capacity and cost are more important. Areca offers a diverse selection of SAS host adapter



including a wide variety of internal and external connector configurations to support any application, from high-performance workstations to large-scale DAS arrays at high performance concerns. System integrators can use the ARC-1330 host adapters to build large-scale storage array infrastructures that support both SAS and SATA devices. The mixing drivers into servers can be felt immediately when using the ARC-1330 to develop a tiered storage solution with hard disk drives (HDDs), solid state drives (SSDs) and removable media (DAS/JBOD).

### Easy Management

A set of 8 green LEDs and 8 red LEDs are provided on the front side of the MD2 low profile board to transport activity/fault status for each of up to 8 attached devices. The global state of these activity/fault indicators is also presented on two sets of header. The adapters contain a BIOS set up utility that can access via hot key at system BIOS boot-up screen. This pre-boot setup utility provides flexibility for customer to optimize the host adapter parameter. API library for customer combines the ARC-1330 series function code to its monitor utility. CLI and API code have supported a system level ATA-8 microcode download for upgrading SATA disk firmware and SES microcode download for upgrading enclosure expander firmware.

## Hardware Specification

- PCIe 3.0 x8 lanes (x8, x4, and x1 lane widths)
- Up to 12Gb/s transfer rates per SAS port
- Support 3Gb/s, 6Gb/s and 12Gb/s SAS and SATA link rates
- Connects to SAS/SATA HDDs, solid state driver (SSDs) and removable media (DAS/JBOD)
- Support a maximum 128 SAS/SATA devices using SAS expander
- Available in a low-profile form factor
- Low-profile bracket
- RoHS compliant
- Only support Passive Copper cable

## Serial Attached SCSI (SAS) 12Gb/s

- Serial Attached SCSI (SAS-3.0) compliant
- Supports wide port (Any combination of x1, x2, and 4x)
- Supports Serial SCSI Protocol (SSP)
- Supports SAS Management Protocol (SMP)
- Supports Serial ATA Tunneling Protocol (STP)
- Hot-plug capability
- Staggered spin-up control

## Serial ATA 6Gb/s

- 6Gb/s compliant with speed negotiation to 3Gb/s
- Support programmable SATA signal voltage levels
- Support staggered spin-up, hot-plug and Native Command Queuing (NCQ)
- Support port multiplier

## Easy Management

- Legacy BIOS setup utility
- Supports Command Line Interface (CLI)
- API library for customer to write monitor utility
- Enclosure management for internal port via LED and SES3/SGPIO
- Enclosure management for external port via SAS expander
- Support ATA-8 microcode download for upgrading SATA disk drive firmware
- Support SES microcode download for upgrading enclosure expander firmware
- ArcSAP quick manager for configuring and maintaining SAS host adapter

## Operating System

- Windows 10/Server2016/8/Server2012
- Linux (Red Hat and SuSE, ...)
- XenServer
- macOS 10.12 or higher

**\* Driver will be available in Q2/2019**

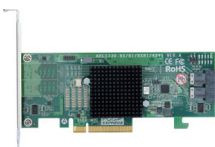
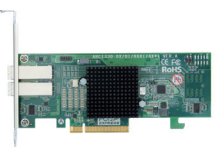

For more information & latest supported OS listing visit [www.areca.com.tw](http://www.areca.com.tw)

### • Environment

Operating	Temperature: +5°C to +60°C Humidity: 15-80%, non-condensing
Storage Temperature	Temperature: -40°C to 70°C Humidity: 5-90%, non-condensing

### • Electrical

Power Dissipation	12W
ARC-1330-8i/4i4x/8x	7.5W/7.5W/7.5W

Model Name	ARC-1330-8i	ARC-1330-8x	ARC-1330-4i4x
Host Bus Type	PCIe 3.0 x8 Lanes		
Cable Support	Passive Copper		
Form Factor	MD2 Low Profile		
Drives Support	128 X 3Gb/s, 6Gb/s and 12Gb/s SAS/SATA		
Internal Connector	2 x SFF-8643	N/A	1 x SFF-8643
External Connector	N/A	2 x SFF-8644	1 x SFF-8644
Direct Attach	Yes		
Dimension(LxH)	167 X 64 mm		
Products View			



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