EX-3517R

4-Port SATA3 Hardware RAID PCIe (x2) Card

1. Introduction

Thank you for purchasing this 4-Port SATA3 RAID PCI PCIe Card. It is designed to support up to 4 SATA3 ports with a built-in SATA3 RAID controller. It supports 4 SATA3 hard drives (or SSD) over one single PCI Express Slot and provides hardware RAID 0, 1, 10, 3, 5 modes for your system.

Features:

- ✓ Supports 2-lane PCIe Gen 2 up to 10Gb/s
- ✓ Provides 4 Internal SATA3 Drives with 2 Double Deck Connectors
- ✓ Supports Hardware RAID 0, 1, 10, 3, 5 Modes
- ✓ Supports Low Profile Form Factor
- ✓ Supports SATA3 transfer rate at 6.0Gb/s
- ✓ Provides Windows RAID GUI for RAID Management
- ✓ Co-resides with Motherboard IDE and SATA devices
- ✓ Supports Win 2003, 2008, XP, Vista, Win 7, 8.x, 10, Linux and Mac OS

2. Board Layout



3. Hardware Installation

- 1. Power down the peripherals, then the computer.
- 2. Remove the computer cover and save the screws.
- 3. Choose an unused PCI Express bus slot.
- 4. Unscrew and remove the slot cover. Retain the screw; you will use it when you install the SATA3 PCIe RAID Card.
- 5. Place the SATA3 PCIe RAID Card into the slot. Carefully press the board into the slot until it seats firmly.
- 6. Secure the SATA3 PCIe RAID Card with the slot cover screw.
- 7. Install the internal SATA cables from the SATA connectors of the PCIe RAID Card to your SATA hard drives.
- 8. Carefully reinstall the computer cover. Insert and tighten the computer cover screws.
- 9. Power up the PC and observe the monitor. The BIOS lists all Serial ATA hard drives attached to the SATA3 PCIe RAID Card. For example:

Asmedia 106x SATA Controller Ver 1.50 AHCI Mode Copyright (C) Asmedia Technologies, Inc. All Right reserved. S.M.A.R.T. Supported Using PCIE Gen2 x2 Firmware version 150910 00 00 00 Port PMP Model 0 KINGSTON SHFS37A120G 0 SATA3 4 0 KINGSTON SHFS37A120G SATA3 5 0 ST3000DM001-9YN166 SATA3 0 ST3000DM001-9YN166 6 SATA3

If the information displayed on your screen is correct (the installed devices are listed with the correct device name, etc.), congratulations! You have successfully installed the SATA3 PCIe RAID Card in your computer.

4. Software Installations Win2000/XP/2003/Vista/Win7

The SATA3 PCIe RAID Card supports Advanced Host Controller Interface (AHCI) mode which gives software developers and hardware designers a standard method for detecting, configuring, and programming SATA/AHCI adapters. *It exposes SATA's advanced capabilities* (such as hot swapping and native command queuing) so it does not need extra drivers for the modern operating systems. The following table lists the operation system supported:

Operating Systems	Support
Windows Server 2012	Yes
Windows Vista (x86, x64)	Yes
Windows 7 (x86, x64)	Yes
Windows 8.x (x86, x64)	Yes
Windows 10.x (x86, x64)	Yes
Mac OS	Yes
Linux Based	Yes (with Kernel 2.6.19 or later)

The PCIe RAID Card hardware has two portions, one is the PCIe to SATA3 host interface which supports AHCI mode. The other is a SATA3 hardware RAID controller which combines the 4 SATA3 hard drives to specific RAID mode by the RAID GUI management utility.

Install the Hardware RAID Management Utility:

1. Insert the driver DVD, run the **setup.exe** file on the DVD (as administrator), the location of the setup.exe file as follows:



\SATA_RAID\JMB390\Windows_Utility

- 2. Follow the onscreen instructions until the installation is completed.
- After reboot, you can run it by click its application icon in the notification tray located at the bottom right corner of the screen or simply double-click the short-cut icon on the desktop.
- 4. To make sure the HW RAID Manager to be always executed as administrator privilege, please right-click on the "JMicron HW RAID Manager" short-cut icon on the desktop, choose "Properties", click "Compatibility" tab, enable the "Run this program as an administrator" option of the privilege level then click OK. Please see the following screen shot:

	Security	Details	Previous Versions
	General	Shortcut	Compatibility
4-	If you have problem an earlier version of matches that earlier	is with this program a Windows, select the version.	nd it worked correctly or e compatibility mode that
	Compatibility mod	he settings	
	Run this pro	gram in compatibility i	mode for:
le i	Windows XP (S	Service Pack 3)	· •
	Settings		
	🔲 Run in 256 d	olors	
	Run in 640 x	480 screen resolutio	n
	Disable visua	al themes	
	Disable desk	top composition	
	📃 Disable displ	ay scaling on high D	PI settings
	Privilege evel		
v 📕	Run his pro	gram as an administra	ator
	🛛 🚱 Change setti	ngs for all users	

5. Using JMB39X HW RAID Manager

Once JMB39X HW RAID Manager is launched, the JMB39X HW RAID Manager GUI window will be opened. For the consideration of different user experiences and achieving the ease of navigation, the main GUI is divided into two modes ("**Basic mode**" and "Advance mode").

	RAID and Disk Inf	ormation		
	Controller 1 P0 : KINGSTON SHF537 P1 : KINGSTON SHF537 P1 : KINGSTON SHF537 P2 : ST3000DM001-9YN P3 : ST3000DM001-9YN	Control KINGSTON SHFS37A120G KINGSTON SHFS37A120G ST3000DM001-9YN166 ST3000DM001-9YN166	ller Information [1] 111.78 GB 111.78 GB 2794.50 GB 2794.50 GB	
		Diski 111.78 GB	Unreleased 111 78 GB Unreleased 111 78 GB	
Adva	Advanced	Disk3	Unrelessed 2794-50-019	
anced N	Mode	Disk4 2794.50 GB	Unreleased 2794.50 GB	
fode	۲ <u>ــــــــــــــــــــــــــــــــــــ</u>			

• **Basic Mode:** Click the following buttons to do basic RAID configuration and browse all disks and RAID information as well as the event logs:

Basic Mode		
	RAID and Disk Information	
	Event Log Viewer	
	Basic RAID Configuration	

• Advanced Mode: It provides 3 buttons for Email Notification and Event Settings, advanced RAID Configuration and Firmware Update:

Advanced Mode



Note: For detail operations of configuring your disk array with the RAID Manager, please read the **JMB39X Raid manager user guide.pdf** file included in the same folder as the software.