

CHALLENGER PCI CARD

Complete Data Recovery and Forensic Environment

One-Lane PCIe 2.0 to Two-Port
6 Gbps SATA I/O Controller

ULTRA SPEED
SATA 3

SATA 3.0 compliant

Hardware Specifications and Features

- Compliant with Serial ATA Specification 3.0.
- Supports communication speeds of 6.0 Gbps, 3.0 Gbps, and 1.5 Gbps.
- Supports programmable transmitter signal levels.
- Supports Gen 1i, Gen 1x, Gen 2i, Gen 2m, Gen 2x, and Gen 3i.
- Supports two SATA ports.
- Supports AHCI 1.0 and IDE programming interface.

Shipped with Dedicated Operating System

Challenger PCI Board is shipped with ChallengerOS Data Recovery Operating system, which guarantees managed hardware transport layers.

Dedicated Hardware Drivers give Professionals a complete control of connected device

Flexible and Transportable Equipment

ChallengerOS can be executed in live or persistent mode and moved from computer to any other x86 platform.

CHALLENGER PCI CARD

Hard Drive Support & Reading Features



CHALLENGER PCI Supported Devices

Compatible with SATA Hard Drives of any Capacity
Compatible with Solid State Disks
Compatible with Apple Hard Disk Drives

Ultrabook or Laptop SSD may require separate SATA adaptor

Full Customizable Reading Algorithm

Challenger PCIe Board offers full customizable reading algorithm.

Professionals will be able to adapt reading procedure to handle any device error or malfunction getting the best reading results ever.

True Physical Hot Plug System

Devices can be connected ,powered * and analyzed into a running Environment without operating system interaction. Challenger PCIe connected devices will not be mounted giving user the chance to analyze data in a true forensic mode.

* Power Link Module available in Challenger PCIe PRO Board

Professional Block Management

Challenger PCIe has been built to handle devices with severe damages.

Professional Reading Algorithms and Optimized Lba Map will help user to skip damaged areas limiting risks of catastrophic failures while reading.



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Data Acquisition & Forensic Features



Device Imaging for forensic purposes

Forensic Specialists can use Challenger PCIe Board for imaging any block device creating several disk image types.

Saved images can be opened and analyzed with Challenger Rocket itself or other forensic or data recovery tools.

Physical Devices, Disk Images, and recognized partitions can be hashed in real-time using the most common Algorithms, MD5, SHA, SHA 256, SHA 512

Powerful Text and Digital Evidences search engine

Built for data recovery and file system metadata localization, Challenger Rocket comes with a Powerful Binary Search engine.

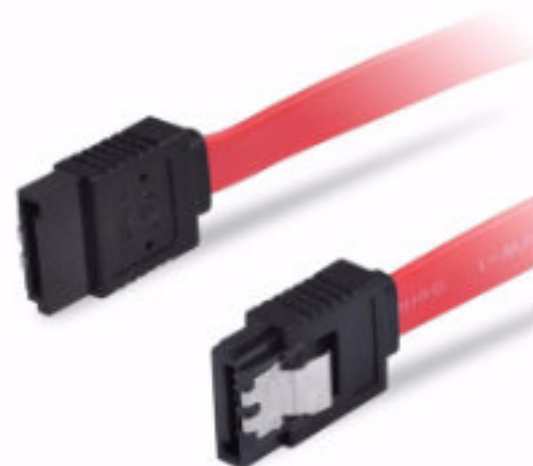
Forensic Search Engine has been developed to support huge file streams helping investigators in data mining and evidence collection.

Native Physical Write Protection

Challenger PCIe Board Connected Devices are not usable or accessible from the operating system.

Connected Devices are handled only by Challenger Rocket Software which comes with a native read-only reading protocol.

This will guarantee 100% write protection for forensic samples and the total security of digital artifacts.



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Data Recovery Features



Built for Data Recovery Specialists

Challenger PCIe Board has been created in a Data Recovery Facility to help Specialists in all hard drive recovery processes.

PCI Board will be effective in any hard drive data recovery case where do still exist a device readiness state.

Complex Reading Algorithms will help Specialists in retrieving the most readable logical block areas.

Logical Addressable Area Optimization

In most cases, Data Recovery Engineer has little chances or a limited time to retrieve sectors from a damaged hard drive.

LBA Map in Challenger Rocket Tasks will reduce Source Device reading stress increasing device lifetime and reducing risks of catastrophic failures.

File System Virtual Translator will help Professionals to isolate required metadata and file fragments leading to a successful Data Recovery Result while a device is still operational.

Complete Physical Device Control



Challenger PCIe connected devices are handled by an exclusive proprietary driver.

Using Task Control options Specialists will be able to set-up the best reading algorithm and the optimal recovery and error handling procedure.



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PCIe Versions

Challenger PCIe Boards	IO PORTS	SPEED	PORTS	POWER LINK
 PCIe LITE	2 SATA	6Gb/s	2 internal	● ●
 PCIe PRO	2 SATA	6Gb/s	2 external	● ●

Challenger PCIe Lite

Challenger PCIe Lite offers excellent performances in a compact design at a lower cost. Hard Drive devices need to be powered manually by a Data Recovery Specialist using internal Computer Power Cables.

Challenger PCIe PRO

Challenger PCIe PRO offers the best device control with an independent digital power supply for each channel.

Devices can be powered and initialized with programmable timeouts and grace time.

Power Line behavior can be customized to handle most hard drive malfunctions such as flash freeze issues common in SSD devices.



Challenger Data Recovery Suite

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