Transforming Technology into Customer Value

Astek A90112-DRV
Astek Drive Doctor
Test Platform for PCIe/SAS/SATA Drives

Key Features

Drive Types

- **SAS/SATA**
- **PCIe NVMe (x1,x2,x4,2x2)**

Form Factors

- **2.5", 3.5"**
- **M.2**
- **PCI CEM**

Protocols

- **Gen 3 SAS 12G**
- **Gen 3 PCIe 8G**
- **Gen 3 SATA 6G**
- **NVMe**

Key Advantages

- **One test platform for all Drive Types**
- **Major functions tested in minutes with minimal effort**
- **Test menu includes One-Click-Testing for extended Power and Performance measurements**
- **Allows integration of drive manufacturers tools**
- **Ability to create custom test scenarios**
- **Intuitive interface requires little or no training**
- **Historical data comparison capability**
- **Data Wipe feature ensures sensitive data removed when drive re-purposed or thrown away**

Enterprise level HDD and SSD drive test platform for SAS/SATA/M.2/PCI (NVMe)/PCIe (CEM) drives.

Astek A90112-DRV
(Shown with A98639-DRV Test Pod)

Overview

The explosion of different drive form factors, protocols and port widths has made it very difficult to quickly and easily test a storage drive. The A90112-DRV was designed to easily test any drive's major functions (Link speed & width) and performance (IOPs and Data Rate) within minutes. The A90112-DRV allows the drive to be tested either in or out of a drive bay carrier, thus eliminating the costly labor of removing/re-inserting drives from/to carriers during troubleshooting. Within minutes of removing a drive from an enclosure, the A90112-DRV can quickly provide basic information such as the drive type, port width(s), port speeds, manufacturer, model number, serial number, storage capacity, types of partitions and their corresponding format.

Supported Drive Protocols and Form Factors

The Astek A90112-DRV Test platform supports the SAS, SATA, and PCIe (NVMe) protocols. The A90112-DRV has three different Test PODs that allow the traditional 2.5" and 3.5" form factor (8639DS) along with M.2 and PCIe CEM form factors. The A90112-DRV supports Gen 3 12Gbps SAS (x2), 6Gbps SATA, and 8Gbps PCIE NVMe (x1, x2, x4, 2x2).

Stand Alone Test Platform

The Astek A90112-DRV is a complete stand-alone platform that allows you to perform testing without needing an additional monitor, keyboard, or mouse. The A90112-DRV comes with a 7" color touch screen display that allows click-and-test through a GUI driven menu. Although not required for testing, the A90112-DRV does have the flexibility to add a separate monitor, keyboard and mouse.

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GUI and Test Software

When a drive is attached to the Test Pod, the Astek A90112-DRV identifies the drive and with the push of one button provides the idle power, drive type, port width(s), port speeds, manufacturer, model number, serial number, storage capacity, types of partitions and their corresponding format. From there, the user has the option to perform I/O performance tests (IOPs and Data Rate), execute Read/Write test scenarios with error checking, scan all SMART and VPD data, measure both static and dynamic power under various drive R/W scenarios, and perform low and high level Data Wipes of the drive. In addition, once the user has finished performing his tests, he can save the test data to an external USB drive with a date stamp. The advantage of being able to save and catalogue test data is that the A90112-DRV allows the user to perform analysis and comparison from previous data to anticipate drive failure, indications of drive degradation over time, collect data for quality metrics, estimate drive life, etc.

Drive Doctor	Astek A90112-DRV-01
Astek Ordering Part Number	A90112-DRV-01 plus the corresponding Test Pods
Test Pod Options	A98639-DRV-01 SAS/SATA/PCIe SSD 2.5" and 3.5" Form Factors
	A9M2-DRV-01 SAS/SATA/PCIe M.2 Form Factors
	A9PCI-DRV-01 PCIe CEM Form Factors
Protocols	12G Gen 3 SAS, 6G Gen 3 SATA, 8G PCIe NVMe
Port Widths	x2 SAS, x1 SATA
	x1, x2, x4, 2x2 PCIe
Voltages Supplied to Drives	12V -> Maximum of 4Amps, 48 Watts
	5V -> Maximum of 3.8 Amps, 19 Watts
	3.3V -> Maximum of 4 Amps, 13.2 Watts
Form Factor	Mini ITX with 7" color LCD touchscreen
Physical Dimensions	13.5" x 10.5"x 4", LCD Display raises up 5.5" from Mini ITX base.
Weight	14.5 lbs
Environmental	Operating: 0°C to 40°C
	Storage: -45°C to 105°C
	5 to 90% Non-condensing
MTBF	TBD
Regulatory Certifications	Designed to be compliant to Safety standards UL-60950-1, CSA-60950-1, and IEC-60950-1. Designed to be compliant to Emissions standards EN-55022:2010/CISPR 22:2010, FCC Part 15 Subpart B Class A, ICES-003 and Immunity standard EN 55024:2010/CISPR 24:2010.
Warranty	Limited 1 years warranty

WARRANTY
Astek products are assembled and tested in world-class facilities to assure superior product reliability and performance.

About Astek Corporation
Astek manufactures storage products for embedded markets including medical, telecommunications and military applications. In addition to Host Bus Adapters, Astek also supplies Serial Attached SCSI solutions including edge and fan-out expanders.

For more information please visit the Astek web site at:
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