WiebeTech USB Data Diode v2.1.0.7

Test Results for Hardware Write Block Device – Federated Testing Suite

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Science and Technology

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WiebeTech USB Data Diode v2.1.0.7

Federated Testing: CRU/WiebeTech WriteBlocking Validation Utility, Version 2.0.2.1

Contents

Introduction

The Computer Forensics Tool Testing (CFTT) program is a joint project of the Department of Homeland Security's (DHS) Science and Technology Directorate, the National Institute of Justice, and the National Institute of Standards and Technology's (NIST) Special Programs Office and Information Technology Laboratory. CFTT is supported by other organizations, including the Federal Bureau of Investigation, the U.S. Department of Defense Cyber Crime Center, U.S. Internal Revenue Service's Criminal Investigation Division Electronic Crimes Program, and U.S. Immigration and Customs Enforcement, U.S. Customs and Border Protection and U.S. Secret Service. The objective of the CFTT program is to provide measurable assurance to practitioners, researchers, and other applicable users that the tools used in computer forensics investigations provide accurate results. Accomplishing this requires the development of specifications and test methods for computer forensics tools and subsequent testing of specific tools against those specifications.

Test results provide the information necessary for developers to improve tools, users to make informed choices, and the legal community and others to understand the tools' capabilities. The CFTT approach to testing computer forensics tools is based on well-recognized methodologies for conformance and quality testing. Interested parties in the computer forensics community can review and comment on the specifications and test methods posted on the CFTT website (https://www.cftt.nist.gov/).

This document reports the results from testing the hardware write blocking function of the WiebeTech USB Data Diode WriteBlocker using the CRU WriteBlocking Validation Utility, Version 2.0.2.1. The CRU WriteBlocking Validation Utility uses the same test method as the CFTT Federated Testing Test Suite for Hardware Write Blocking.

Federated Testing is an expansion of the CFTT program to provide forensic investigators and labs with test materials for tool testing and to support shared test reports. The goal of Federated Testing is to help forensic investigators to test the tools that they use in their labs and to enable sharing of tool test results. CFTT's Federated Testing Forensic Tool Testing Environment and included test suites can be downloaded from http://www.cftt.nist.gov/federated-testing.html and used to test forensic tools. The results can be optionally shared with CFTT, reviewed by CFTT staff, and then shared with the community.

Test results from other tools can be found on the DHS S&T-sponsored digital forensics webpage, http://www.dhs.gov/science-and-technology/nist-cftt-reports.

Federated Testing Test Results for Hardware Write Block Device: WiebeTech USB Data Diode WriteBlocker

1. Test Information

Organization/Tester Name	WiebeTech – CDSG
Operating System	Windows 10 Pro v22HS Build 19045

2. Write Blocker Information

Name	USB Data Diode WriteBlocker
Manufacturer	Wiebetech - CRU DataPort
Serial Number	03-047681-A02
Firmware	0103
Drive Interface	USB Flash Drive
Host Interface	USB

3. Drive Information

Name	Disk 1 (28.64 GB)
Partition(s)	TEST_DRIVE2 (E:) 28.62 GB
Manufacturer	SanDisk
Model	Ultra USB 3.0
Serial Number	4C531001410124104454
Firmware Revision	0100

NOTE: Results may vary depending on bus type.
For this reason, if you have alternate bus ports provided on your device or write blocker, it is recommended you test all interfaces available.

4. Summary

PASS	No sectors on the drive were modified during the test.

4.1. Results

Unmodified Sectors	**1**
Modified Sectors	**0**
Commands Not Supported	54
Commands Not Enabled	0
Incomplete Commands	0
Errors	0
Skipped	0

Table 1: Results

4.2. Options

Force commands	False
Test sectors above 2.2 TB (+)	True
Pause after each command	False
Prepare for NIST Federated Testing	True

5. Log – Results

```
2023-01-19 01:08:46 PM | Starting test...
```

WRITE DMA EXT*	NOT SUPPORTED	Command not supported by the write blocker.
WRITE DMA EXT*+	NOT SUPPORTED	Command not supported by the write blocker.
WRITE DMA FUA EXT*	NOT SUPPORTED	Command not supported by the write blocker.
WRITE DMA FUA EXT*+	NOT SUPPORTED	Command not supported by the write blocker.
WRITE FPDMA QUEUED	NOT SUPPORTED	Command not supported by the write blocker.
WRITE DMA QUEUED FUA EXT*	NOT SUPPORTED	Command not supported by the write blocker.
WRITE DMA QUEUED FUA EXT*+	NOT SUPPORTED	Command not supported by the write blocker.
[SCSI] WRITE (10)*	SECTOR UNMODIFIED	No changes to sector detected.
WRITE DMA*	NOT SUPPORTED	Command not supported by the write blocker.
WRITE DMA QUEUED*	NOT SUPPORTED	Command not supported by the write blocker.
WRITE DMA QUEUED EXT*	NOT SUPPORTED	Command not supported by the write blocker.
WRITE DMA QUEUED EXT*+	NOT SUPPORTED	Command not supported by the write blocker.
[SCSI] WRITE (16)*	NOT SUPPORTED	Command not supported by the write blocker.
[SCSI] WRITE (16)*+	NOT SUPPORTED	Command not supported by the write blocker.
WRITE SECTOR(S)*	NOT SUPPORTED	Command not supported by the write blocker.
WRITE SECTOR(S) EXT*	NOT SUPPORTED	Command not supported by the write blocker.
WRITE SECTOR(S) EXT*+	NOT SUPPORTED	Command not supported by the write blocker.
WRITE MULTIPLE*	NOT SUPPORTED	Command not supported by the write blocker.
WRITE MULTIPLE EXT*	NOT SUPPORTED	Command not supported by the write blocker.
WRITE MULTIPLE EXT*+	NOT SUPPORTED	Command not supported by the write blocker.
WRITE VERIFY*	NOT SUPPORTED	Command not supported by the write blocker.
WRITE SECTOR(S) w/o retries*	NOT SUPPORTED	Command not supported by the write blocker.
WRITE MULTIPLE FUA EXT*	NOT SUPPORTED	Command not supported by the write blocker.
WRITE MULTIPLE FUA EXT*+	NOT SUPPORTED	Command not supported by the write blocker.

WRITE DMA w/o retries*	NOT SUPPORTED	Command not supported by the write blocker.
WRITE LOG EXT	NOT SUPPORTED	Command not supported by the write blocker.
WRITE LOG DMA EXT	NOT SUPPORTED	Command not supported by the write blocker.
CFA WRITE MULTIPLE WITHOUT ERASE*	NOT SUPPORTED	Command not supported by the write blocker.
CFA WRITE SECTORS WITHOUT ERASE*	NOT SUPPORTED	Command not supported by the write blocker.
CFA ERASE SECTORS	NOT SUPPORTED	Command not supported by the write blocker.
WRITE STREAM DMA EXT*	NOT SUPPORTED	Command not supported by the write blocker.
WRITE STREAM DMA EXT*+	NOT SUPPORTED	Command not supported by the write blocker.
WRITE STREAM EXT	NOT SUPPORTED	Command not supported by the write blocker.
[SCSI] WRITE (6)*	NOT SUPPORTED	Command not supported by the write blocker.
[SCSI] WRITE (12)*	NOT SUPPORTED	Command not supported by the write blocker.
[SCSI] WRITE (32)*	NOT SUPPORTED	Command not supported by the write blocker.
[SCSI] WRITE (32)*+	NOT SUPPORTED	Command not supported by the write blocker.
[SCSI] WRITE AND VERIFY (10)	NOT SUPPORTED	Command not supported by the write blocker.
[SCSI] WRITE AND VERIFY (12)	NOT SUPPORTED	Command not supported by the write blocker.
[SCSI] WRITE AND VERIFY (16)	NOT SUPPORTED	Command not supported by the write blocker.
[SCSI] WRITE AND VERIFY (16)+	NOT SUPPORTED	Command not supported by the write blocker.
[SCSI] WRITE AND VERIFY (32)	NOT SUPPORTED	Command not supported by the write blocker.
[SCSI] WRITE AND VERIFY (32)+	NOT SUPPORTED	Command not supported by the write blocker.
[SCSI] WRITE LONG (10)	NOT SUPPORTED	Command not supported by the write blocker.
[SCSI] WRITE LONG (16)	NOT SUPPORTED	Command not supported by the write blocker.
[SCSI] WRITE LONG (16)+	NOT SUPPORTED	Command not supported by the write blocker.
[SCSI] WRITE SAME (10)	NOT SUPPORTED	Command not supported by the write blocker.
[SCSI] WRITE SAME (16)	NOT SUPPORTED	Command not supported by the write blocker.
[SCSI] WRITE SAME (16)+	NOT SUPPORTED	Command not supported by the write blocker.
[SCSI] WRITE SAME (32)	NOT SUPPORTED	Command not supported by the write blocker.
[SCSI] WRITE SAME (32)+	NOT SUPPORTED	Command not supported by the write blocker.
WRITE LONG w/ retries*	NOT SUPPORTED	Command not supported by the write blocker.
WRITE LONG w/o retries*	NOT SUPPORTED	Command not supported by the write blocker.
WRITE UNCORRECTABLE EXT*	NOT SUPPORTED	Command not supported by the write blocker.

2023-01-19 01:08:52 PM | Test complete.

Test Result - **PASS.** No sectors on the drive were modified during the test.
Results saved to the following location:
"C:\Program Files (x86)\CDSG\WriteBlocking Validation Utility\Test Results\4C531001410124104454_WriteBlockTest_2023_01_19_13_08_46.html".

Error Code Key

No errors detected.