



**Products Claims Testing
Claims Test ADPC0094
RedKey USB Ltd**

Author: Dr Andrew Blyth,

Revision 1.1

Date: October 27, 2020

Distribution: Confidential

DISCLAIMER

The Product Claims Test is presented as the outcome of a specific test ran in laboratory environment under controlled conditions. Use of this certified product for the purpose of sanitizing data from devices tested needs to be done so after a risk assessment process. ADISA reserves the right to review the validity of this award upon changes in threat landscape.

LIABILITY

ADISA accepts no liability for any claims resulting from the use of the product tested.

REVISION HISTORY

27/10/2020 Revision 1.1 issued to Gareth Owen



**Asset Disposal and Information Security
Alliance Limited**

Phone: 0044 845 557 7726

Registration Number: 07390092

Web: www.adisa.global www.adisarc.com

Registered Office: 31 Thrales End Business
Centre, Thrales End Lane, Harpenden, AL5 3NS

Contents

1.0	Executive Summary	4
2.0	Test Level 1 Testing Solid State and Electromagnetic Drives	5
2.1	Methodology.....	5
3.0	Summary and Conclusions.....	6

CONFIDENTIAL

1.0 Executive Summary

This is a preliminary report detailing the findings in relation to the execution of the ADISA Testing Methodology on Claims Test ADPC0094 submitted by Gareth Owen, Redkey USB Ltd on 26th September 2020.

The claims test was carried out in accordance with ADISA Claims Testing (ACT) v1.0 and supporting document ADISA Testing Methodology v1.0, both of which are available from ADISA.

The claim made for the drive was:

“Redkey Software Called ‘REDKEY USB ULTIMATE VERSION 3.47’, when used in accordance with the user manual ‘Revision 1’, and using the ‘RK1 – Redkey Data Wipe Level 1’ algorithm, will remove all user data on the media sample within this test to protect from a Forensic attack equivalent up to and including Test Level 1 of the ADISA Threat Matrix”, ADPC0094

Two devices were submitted as part of this test and these are listed below:

<i>Device</i>		<i>Test Level</i>
Intel SSD 128GB	Model: SSDSA2M160G2GC 2.5"	1
Hitachi HDD 500GB	Model: 647466-001	1

After testing it is confirmed that the ADPC0094 **claim is true** for the devices tested up to Test Level 1 results.

2.0 Test Level 1 Testing Solid State and Electromagnetic Drives

2.1 Methodology.

This test phase is designed to evaluate the claim made by recreating an attack by a threat adversary utilising standard COTS forensic tools and techniques.

For each computer hard drive device, the following methodology is performed:

1. The device is connected to a target PC and place in a stable state.
2. The applicant software was configured in accordance with the manufacturer's instructions.
3. Structured data, the string "ADISA", was written to every logical block address on the hard drive.
4. The device was then imaged using standard imaging techniques to create a base-line forensic image.
5. The device was then erased using the applicant's software in accordance with the manufacturer's instructions.
6. The device was then analysed use using the following tools to create a second forensic image:
 - a. Standard commercial tools and techniques such as Access Data/FTK, Forensic Explorer and Encase.
7. The two forensic images (Stage 4 and Stage 6) were then compared and contrasted to ensure that all structured data had been removed.
 - a. For this test, there is no tolerance for remnant structured data and the result is a straight Pass or Fail.

2.2 Test Results.

Test Level 1 Summary Results

Test Level 1 replicated an attack on these devices being made by an aggressor with capabilities outlined below.

Risk Level	Threat Actor and Compromise Methods	Test Level
1 (Low)	Casual or opportunistic threat actor only able to mount high-level non-invasive and non-destructive software attacks utilising freeware, OS tools and COTS products. Commercial data recovery organisation able to mount non-invasive and non-destructive software attacks and hardware attacks	1

The Results of Test Level 1.

Hard Drive/Model		Result
Intel SSD 128GB	Model: SSDSA2M160G2GC 2.5"	PASS
Hitachi HDD 500GB	Model: 647466-001	PASS

Pass means that the *REDKEY USB ULTIMATE VERSION 3.47* mitigates the threat posed by the Threat Actors holding the capabilities outlined by Test Level 1 on the tested devices and the claim made can be confirmed. A key element to the claims test is that the software has to be used in accordance with the manufacturer's user manual.

3.0 Summary and Conclusions.

Claims Test Result: Pass on all SSD/HDD Tested.

The two devices passed the claims test as all-forensic data recovery techniques up to and including ADISA Test Level 1 failed to recover any data. The software tested was the *REDKEY USB ULTIMATE VERSION 3.47*.

Claims Test Carried Out By: Professor Andrew Blyth, PhD.

Test Facility: ADISA Research Centre

Signature:



Date: 26th Oct 2020

CONFIDENTIAL