



**Products Claims Testing
Claims Test ADPC0055
Li-Tong Group**

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Revision 1.0

Date: March 29, 2019

Distribution: Confidential

DISCLAIMER

The Product Claims Test is presented as the outcome of a specific test ran in a 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

29/03/2019 Revision 1.0 issued to Steve Mellings



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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 ADPC0055 submitted by Vincent Wong of Li-Tong Group in February 2019.

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:

“The Leader Server v4.1 Build 201 80521022021 when used in accordance with the operation manual Leader Server v4.1 Build 20180521022021 and executing the DOD 522022M algorithm can remove all user data on an Intel SSD (Model Number: SSD5A2M080G2HD 2.5) such that it is not possible to recover data using data recovery capabilities up to and including Test Level 2 of the ADISA threat matrix.” ADPC0055

One device was submitted as part of this test and this is listed below:

Device	Test Level
Intel Series X25-M - Model SSD5A2M080G2HP 2.5	1 and 2

After testing it is confirmed that the Li Tong **claim is true** for the devices tested up to Test Level 1 results. Those devices are:

- Intel Series X25-M - Model SSD5A2M080G2HP 2.5

After testing it is confirmed that the Li Tong **claim is true** for the devices tested up to Test Level 2 results. Those devices are:

- Intel Series X25-M - Model SSD5A2M080G2HP 2.5

2.0 Test Level 1 Testing Solid State 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. Structured data, the string "ISRG", was written to every logical block address on the hard drive.
2. The device was then imaged using Access Data / FTK to create a base-line forensic image.
3. The device was then erased using the applicant's software in accordance with the manufacturer's instructions.
4. The device was then analysed using the following tools to create a second forensic image:
 - a. Standard commercial tools and techniques such as Access Data/FTK and Encase.
5. The two forensic images (Stage 3 and Stage5) 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 (Very 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.	1
2 (Low)	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 Series X25-M - Model SSD5A2M080G2HP 2.5	PASS

Pass means that the Li Tong Leader Server Version 4.1 software 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 Test Level 2 Testing Solid State Drive

3.1 Methodology.

This test phase is designed to evaluate the claim made by recreating an attack by a threat adversary utilising standard intrusive/destructive testing tools designed to read data directly off the device at the platter/chip level.

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. Structured data, the string "ISRG", was written to every logical block address on the hard drive.
3. The device was then imaged using Access Data/FTK to create a base-line forensic image.
4. The device was then erased using the applicant's software in accordance with the manufacturer's instructions.
5. The device was then analysed use the following tools and techniques to create a series of forensic images that are compared and contrasted with the base-line forensic image to ensure that all structured data has been removed. For this test, there is no tolerance for remnant structured data and the result is a straight Pass or Fail.
 - a. Software based forensic tools/techniques such as:
 - i. Standard commercial tools and techniques such as Access Data/FTK and ENCcase;
 - ii. State of the art data recovery tools such as PC3000 SSD;
 - iii. Customer designed data recovery software.
 - b. Hardware/Chip based forensic tools/techniques such as:
 - i. Flash/NAND TSOP/BGA chip readers;
 - ii. State of the art data recovery tools such as PC3000 FLASH and Rusolut;
 - iii. Customer designed data recovery software/hardware.

3.2 Test Results.

Test Level 2 Summary Results

Test Level 2 replicated an attack on these devices being made by an aggressor with capabilities outlined below.

Risk Level	Threat Actor and Compromise Methods	Test Level
3 (Medium)	Commercial computer forensics organisation able to mount both non-invasive/non-destructive and invasive/non-destructive software and hardware attack, utilising COTS products.	2
4 (High)	Commercial data recovery and computer forensics organisation able to mount both non-invasive/non-destructive and invasive/ non-destructive software and hardware attack, utilising both COTS and bespoke utilities.	2

The Results of Test Level 2.

<i>Hard Drive/Model</i>	<i>Result</i>
Intel Series X25-M - Model SSD5A2M080G2HP 2.5	PASS

Pass means that the Li Tong Leader Server Version 4.1 software mitigates the threat posed by the Threat Actors holding the capabilities outlined by Test Level 2 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.

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4.0 Summary and Conclusions.

Claims Test Result: Pass.

The device passed the claims test as all-forensic data recovery techniques up to and including ADISA Test Level 1 and 2 failed to recover any data. The software tested was the Li Tong Leader Server Version 4.1.

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

Signature:

A handwritten signature in black ink, appearing to read 'A Blyth', with a large, stylized flourish extending from the end.

Date: 29.03.2019

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