



Single Product Test



K7 Total Security

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www.av-comparatives.org

Commissioned by K7 Computing

1 Introduction

This Real-World Protection and Performance benchmark has been commissioned by K7 Computing.

Time of test:

- 15th of May till 26th of May 2017 (Performance Test)
- June 2017 (Real-World Protection Test)

2 Tested products

- K7 Total Security 15.1

3 Test results

3.1 Performance Testing

3.1.1 Machine Specification

All tests were performed on the same machine type. We created an image of the system to ensure a level playing field for each product/test. Before installing each product, we reverted the system back to the base-image, for which we updated all drivers and the operating system. No updates were installed during the test period.

Machine type	Lenovo G50-80
Operating system	Windows 10 RS1 64-bit
Chipset	Intel i3-4005U
RAM	4GB
Hard disk	HDD
Screen Resolution	1920x1080
Network	Ethernet

Machine Configuration

All tests were done on a clean installation of Windows. The following additional changes were made:

- Disabling of all services of the operating system which might influence the result
- Installation of the automation software "AutoIt". We used this software to perform tasks without any user input, in order to keep the results as consistent as possible.
- Installation of the performance-testing software "PCMark"
- Installation of Microsoft Windows Assessment and Deployment Toolkit (ADK)
- Installation of Microsoft Office 365 (updates disabled)

3.1.2 Test cases and methodology

3.1.2.1 Open Websites

Goal: Measure the time to open popular websites with Internet Explorer.

Methodology: We used 35 of the most popular websites. The test was automated using a script. First, an instance of Internet Explorer is opened (website 'about:blank'). The time to completely load and display the website was measured. We only measure the time to navigate to the website when an instance of the browser is already started.

3.1.2.2 Launch Applications

Goal: Measure the time to open popular office applications

Methodology: The time is measured to open documents in popular office applications (Microsoft Word 2016, Microsoft Excel 2016, Microsoft Power Point 2016, Adobe Reader DC 15). Some documents contain (harmless) macro scripts.

3.1.2.3 Installation of 3rd Party Software

Goal: Measure the time needed for installing and uninstalling 3rd party software.

Methodology: We measure the overall time for installing and uninstalling five popular applications.

3.1.2.4 Download Files

Goal: Measure the time for downloading files from a web server to the local disk.

Methodology: Files are downloaded from a local web server using the command line utility "WGET.exe" via HTTP.

3.1.2.5 Archiving

Goal: Measure the time for archiving and unarchiving files on local disk.

Methodology: Common file types are archived and unarchived using the command line utility 7zip.

3.1.2.6 Copy Files to External Drive

Goal: Measure the time to for copying files from local disk to an external HDD.

Methodology: Common file types are copied from the local disk to an external HDD. Copying is performed using xcopy. The external HDD is connected to the machine with USB 3.0.

3.1.2.7 PC Mark

Goal: Compare AV products by recording the PC Mark score.

Methodology: The machine is restarted after each iteration. The machine is in idle for 30 minutes before the test starts. We record the score reported by PC Mark test "Run Conventional". We used PC Mark version 2.7.613.

3.1.3 Results and Discussion

In this section, we provide the values for the single-run tests, and the average values for those tests which were executed multiple times. For interpretation of the results: Please note that measurements of performance aspects of a product can be influenced by factors which cannot be controlled, such as system processes running on the machine, background tasks etc. We executed the tests multiple times to provide the most accurate values possible. The results should be interpreted with caution.

3.1.4 PC Mark

All PC Mark scores are in comparison to the baseline.

Product	PC Mark Score
K7 Total Security	98.4%

3.1.5 AV-C Performance Score

Rating for performing in individual test cases. The testers defined the categories slow, mediocre, fast and very fast consulting statistical methods.

Key:



		K7 Total Security
Browsing Websites		
Launching Applications	On first run	
	On subsequent runs	
Installing / Uninstalling Applications		
Downloading Files		
Archiving / Unarchiving		
Copying to external drive	On first run	
	On subsequent runs	

3.1.6 Overall Performance Rating

The overall rating is a combination of the results from the individual test cases (max 90 pts.) and the PC Mark score (max. 100 pts.). The overall max score is 190 pts. Each of the eight individual test cases can earn 15 pts. max. For the copying test cases a mean score for the first and subsequent runs is taken. For the launching applications we only take the results from the subsequent runs.

Product	Total Points	Impact Score
K7 Total Security	186.4	3.6

Results can be compared with other products here:

https://www.av-comparatives.org/wp-content/uploads/2017/06/avc_per_201705_en.pdf

3.2 Real-World Protection Test

The results are based on the test set of **397** live test cases (malicious URLs found in the field). Thus exactly the same infection vectors are used as a typical user would experience in everyday life. The test-cases used cover a wide range of current malicious sites and provide insights into the protection given by the product (using **all** its protection features) while surfing the web.

Product	Protection Rate	False Positives
K7 Total Security	98.6%	7

Results can be compared with other products here:

<https://chart.av-comparatives.org/chart1.php>

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