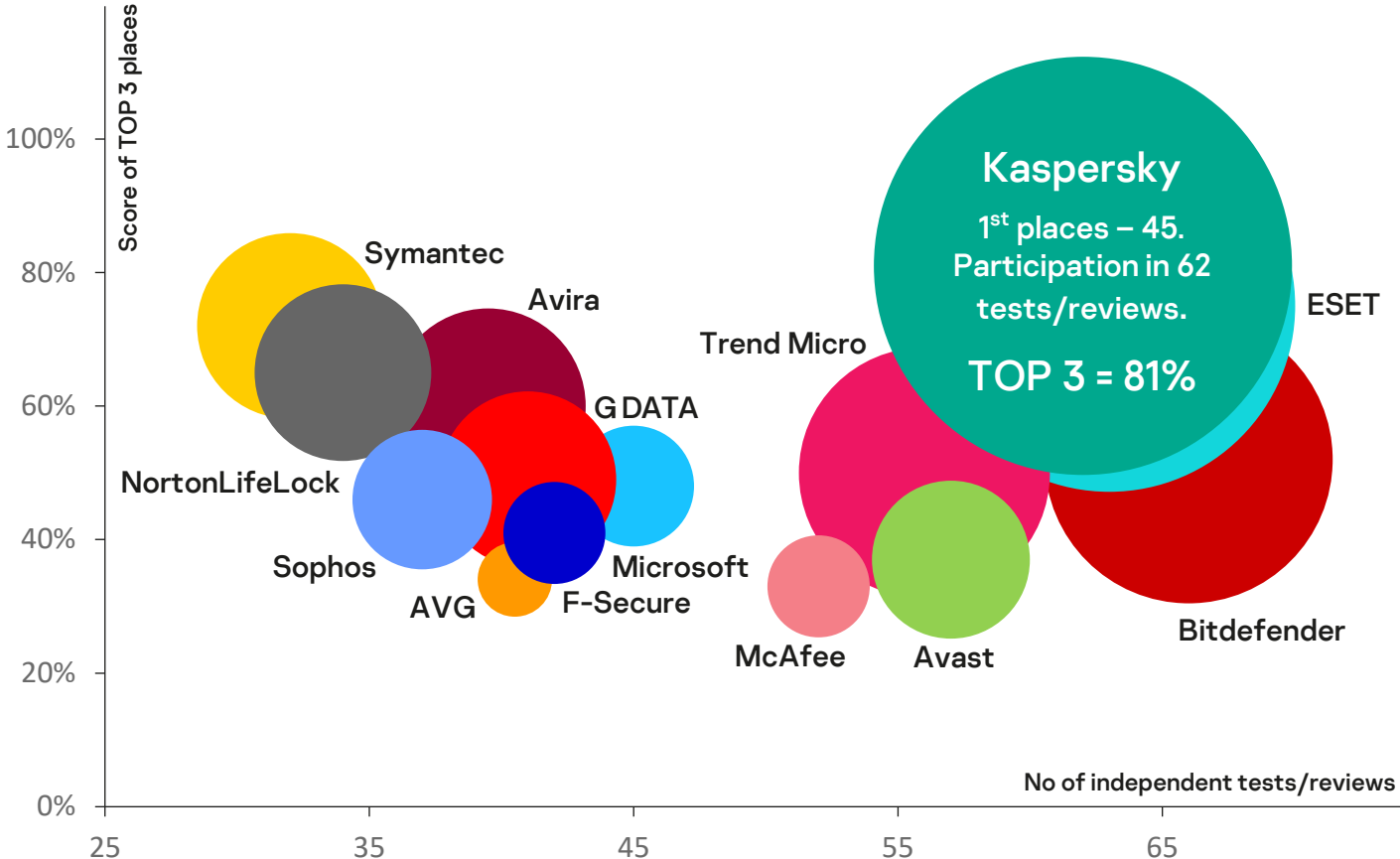
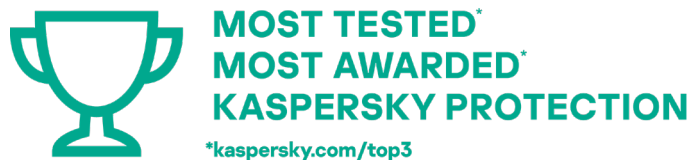


# Most tested. Most awarded. Kaspersky protection.\*



In 2020 Kaspersky products participated in 62 independent tests and reviews. Our products were awarded 45 firsts and achieved 50 top-three finishes.



- \* Notes:
- According to summary results of independent tests in 2020 for corporate, consumer and mobile products.
  - Summary includes independent tests conducted by : AV-Comparatives, AV-TEST, SE Labs, ICSA Labs, NSS Labs, MRG Effitas, Virus Bulletin.
  - Tests performed in these programs assess all protection technologies against known, unknown and advanced threats.
  - The size of the bubble reflects the number of 1st places achieved.
  - Most Tested is confirmed on any time range from 2019-2020 to 2013-2020.

[www.kaspersky.com/top3](http://www.kaspersky.com/top3)

## TOP3 metric reflects how successful a vendor was in independent tests within a calendar year.

The main characteristic of success is a **TOP3 score** that shows how many times a vendor with its products gained the first, second, or third place in independent tests they participated in within a reported period. **The TOP3 score** is calculated by dividing a vendor's **TOP3 counter** by a vendor's **Participation counter**.

**The TOP3 score** is determined for each participating vendor separately and then compared to each other.

- Depending on a test, final test results may vary from giving awards for participating vendors to providing only a list of their detection rates and false positives.  
A vendor's **TOP3 counter** is incremented either for winning an award or ranking in the first three places in a test. Several vendors can achieve equal results in detection rates, or summary results, or win awards of the same grade. In this case, the vendors share the same place in the same test.  
In case of detection rates or summary results, the place of a vendor with the lower result is calculated as "number of higher ranked vendors + 1". For instance, the sequence "1,1,2,3" is not possible, whilst "**1,1,3,4**", or "**1,2,2,4**", or "**1,1,1,1,1,6**" are. In the latest sequences TOP3 counter will be incremented for bolded vendors only.  
In regards with awards, refer to rule clarifications listed in the tests description below.
- A vendor's **Participation counter** is incremented each time one of its products participates in a test/review/overview.  
In some tests several products of one vendor can participate in the same test. In those cases, since all products increment the vendor's Participation counter, the Participation counter can be higher than a total number of tests.

Only those who participate in 35% or more of the total number of tests have their results represented in the chart.

The deadline for submitting scores attained in 2020 was February, 3<sup>rd</sup> 2021, with no option to add any test/review after this date.

Among the security vendors participating in the TOP3 measurements are: Avast, AVG, Avira, BitDefender, BlackBerry (Cylance), Broadcom (Symantec), BullGuard, CrowdStrike, ESET, F-Secure, G DATA, Intel Security (McAfee), Kaspersky, Microsoft, NortonLifeLock, Palo Alto, Panda, Sentinel One, Sophos, Trend Micro, Quick Heal and VMWare (CarbonBlack). A complete list of participants appears at the end of this document.

	No of tests entered	No of TOP3 places	Score of TOP3 places (%)	No of 1 <sup>st</sup> places
<b>Kaspersky</b>	62	50	81%	<b>45</b>
<b>ESET</b>	63	47	75%	<b>40</b>
<b>Broadcom (Symantec)*</b>	32	23	72%	<b>20</b>
<b>NortonLifeLock</b>	34	22	65%	<b>19</b>
<b>Avira</b>	40	24	60%	<b>21</b>
<b>Bitdefender</b>	69	36	52%	<b>31</b>
<b>Trend Micro</b>	56	28	50%	<b>27</b>
<b>G DATA</b>	41	20	49%	<b>20</b>
<b>Microsoft</b>	45	21	47%	<b>13</b>
<b>Sophos</b>	37	17	46%	<b>13</b>
<b>F-Secure</b>	42	18	43%	<b>16</b>
<b>Avast</b>	57	21	37%	<b>17</b>
<b>AVG</b>	41	14	34%	<b>12</b>
<b>McAfee</b>	52	17	33%	<b>13</b>

\* Broadcom (Symantec) participated only in 34% of the total number of tests, but we consider valuable to have its results represented in the chart.

These tests were performed against various types of malware, including advanced threats as well as false positives.

## Specialized threats

### Ransomware

- AV-Comparatives. Business Security Test
- AV-Comparatives. Malware Protection Test
- AV-Comparatives. Real-World Protection Test
- AV-TEST. Bi-Monthly Certification: Consumer and Business
- MRG Effitas. 360 Degree Assessment & Certification
- NSS Labs. Advanced Endpoint Protection Test
- SE Labs. Home Anti-Malware Protection Test
- SE Labs. Small Business Endpoint Protection Test
- SE Labs. Enterprise Endpoint Protection Test

### Fileless

- AV-Comparatives. Endpoint Prevention & Response (EPR) Test
- AV-Comparatives. Enhanced Real-World Test: Consumer and Business
- NSS Labs. Advanced Endpoint Protection Test

### Exploits

- AV-Comparatives. Enhanced Real-World Test
- MRG Effitas. 360 Degree Assessment & Certification
- NSS Labs. Advanced Endpoint Protection Test
- SE Labs. Home Anti-Malware Protection Test
- SE Labs. Small Business Endpoint Protection Test
- SE Labs. Enterprise Endpoint Protection Test
- Virus Bulletin. VBWeb Comparative Review

### Financial malware

- MRG Effitas. Online Banking/Browser Security Certification (Q1)
- MRG Effitas. 360 Degree Assessment & Certification (since Q2)

### Apt

- AV-Comparatives. Endpoint Prevention & Response (EPR) Test
- AV-Comparatives. Enhanced Real-World Test: Consumer and Business
- ICSA. Advanced Threat Detection Certification

### Phishing

- AV-Comparatives. Anti-Phishing Test
- Virus Bulletin. VBWeb Comparative Review

### Parental control

- AV-Comparatives. Parental Control Certification

## Dedicated tests

### Android tests

- AV-Comparatives. Mobile Security Review
- AV-TEST. Android Mobile Security Products Test: Consumer and Business
- MRG Effitas. Android 360 Assessment Programme

### Mac tests

- AV-Comparatives. Mac Security Test & Review
- AV-TEST. Mac Detection & Performance Test: Consumer and Business

### Email protection

- SE Labs. Email Security Services Protection

## Real-world tests

- AV-Comparatives. Real-World Protection Test
- AV-Comparative. Enhanced Real-World Test: Consumer and Business
- AV-TEST Bi-Monthly Certification Consumer and Business
- SE Labs. Home Anti-Malware Protection Test
- SE Labs. Small Business Endpoint Protection Test
- SE Labs. Enterprise Endpoint Protection Test

## Tests on a static collection

- Virus Bulletin. VB100 Certification

## False positives (FP)

- All the tests mentioned above include FP measurements.

## The following tests were performed in 2020 and used to calculate the metric:

### AV-Comparatives

#### • Product of the Year

At the end of the year, this annual award is given to the Consumer related product which attained the highest awards in an entire year's testing cycle, involving the following tests: 2 Malware Protection Tests (MPT) + 2 Real-World Protection Tests (RWPT) + Enhanced Real-World Test + 2 Performance Tests. According to AV-Comparatives' rules, in cases where two or more products receive the same maximum score, the award goes to the product which gained the highest individual scores and did not receive it the previous year. The seal is counted as a first place in the TOP3 metric.

Products which were nominated, but did not receive the 'Product of the Year' award, are given the 'Outstanding Product' rank for their vendors, which counts as a second place in the TOP3 metrics.

Products which achieved at least 90 points across the entire test cycle are awarded the 'Top Rated' rank for their vendors, which counts as a third place in the TOP3 metric. Products that fail to score any points in, at least, one of the tests are excluded.

At the end of the year, medals ('Gold', 'Silver', 'Bronze') are also given for the best results in specific tests: MPT, RWPT, Performance, Enhanced Real-World Test. As these test results have already contributed to overall TOP3 metrics, the medals themselves do not count towards it since 2015.

Only awards can contribute towards TOP3 counters in AV-Comparatives tests.

#### • Malware Protection Test

This test is a successor of the File Detection Test and includes execution of the tested files. It is conducted twice a year and, correspondingly, is counted two times in the metrics. The test consists of two parts: Detection Rate and False Positives.

Products receive the following awards: "Advanced+", "Advanced", "Standard" or "Tested". Only products with "Advanced+" gain an increment of TOP3 counters for their vendor.

#### • Real-World Protection Test

The test lasts for four months and is finalized in a half-year report using mainly current, visible, and relevant malicious websites/malware. The test is conducted twice a year and, correspondingly, counted two times in the metrics. Because all product components contribute a significant role in overall protection, results achieved in this category are a good indicator of anti-malware product efficiency in real-world scenarios.

Products receive the following awards: "Advanced+", "Advanced", "Standard" or "Tested". Only products with "Advanced+" gain an increment of TOP3 counters for their vendor.

#### • Enhanced Real-World Test: Consumer and Business

This is the Advanced Threat Protection test that checks the products' defences against targeted attacks that aim to sabotage corporate networks or steal confidential data. This test is conducted and counted in the metrics once a year. Consumer and Business related products are assessed separately.

Products receive the following awards: "Advanced+", "Advanced", "Standard" or "Tested". Only products with "Advanced+" gain an increment of TOP3 counters for their vendor.

#### • Anti-Phishing Test

This test is performed and counted in the metrics once a year and simulates a common situation: users rely on the anti-phishing protection provided by their security products while browsing the web. The test consists of two parts: Detection Rate and False Positives.

If all products achieved zero False Positives, the products achieving the highest three places based on Protection Rate, gain an increment of TOP3 counters for their vendor.

If any of participating products achieved any False Positives, only certified products gain an increment of TOP3 counters for their vendor.

## AV-Comparatives

### • Endpoint Prevention & Response (EPR) Test

This test is performed and counted once a year and includes a study of security solution performance metrics in relation to targeted attacks (time to prevention; time to response), with correlating all stages to the tactics and techniques of the MITRE ATT&CK matrix, and the total cost of ownership (TCO) calculated for each product.

Products that demonstrate the three highest Prevention/Response Capabilities gain an increment of TOP3 counters for their vendor.

### • Parental Control Certification

The test is performed and counted in the metrics once a year and evaluates protection efficiency of security products to prevent children from visiting unwanted web sites.

Products that blocked 98% of pornographic websites with no more than a few False Positives on child-friendly websites, and have no severe unresolved bugs (or design flaws) discovered during the review, are certified by the test lab, and gain an increment of TOP3 counters for their vendor.

### • Mobile Security Review

This review is done and counted in the metrics once a year and includes a malware protection test along with an overview of additional features (theft protection, battery consumption, etc.).

If all products achieved zero False Positives, the products achieving the highest three places based on Protection Rate, gain an increment of TOP3 counters for their vendor.

If any of participating products achieved any False Positives, only certified products gain an increment of TOP3 counters for their vendor.

### • Mac Security Test & Review

This review is done and counted in the metrics once a year and evaluates various Mac protection products against a product feature list and measures protection levels in categories such as Detection Rate on separate Mac- & Windows-related malware sets and a False Positive level.

If all products achieved zero False Positives, the products achieving the highest three places based on Protection Rate, gain an increment of TOP3 counters for their vendor.

If any of participating products achieved any False Positives, only certified products gain an increment of TOP3 counters for their vendor.

### • Business Security Test

This report is conducted and published twice a year. Correspondingly, it is counted two times in the metrics. The report includes a review of various business security products and also evaluates the protection efficiency in categories such as Protection Rate on different malware sets, websites, and exploits and a False Positive level.

Products achieving, at least, 90 percent Protection Rate with no False Positives on common business software in the Malware Protection Test and, at least, 90 percent Protection Rate with less than 100 False Positives on any clean software/websites in the overall Real-World Protection Test, with no major performance issues, are certified by the test lab, and gain an increment of TOP3 counters for their vendor.

## AV-Test

### • Best Protection Award: Consumer and Business

This annual award is given once a year for perfect results in the Protection category over the course of an entire year, during which bi-monthly certification takes place. Consumer and Business related products are assessed separately.

Only products that receive this award gain a TOP3 counter increment for their vendor.

### • Best Usability Award: Consumer and Business

This annual award is given once a year for perfect results in the Usability category over the course of an entire year, during which bi-monthly certification takes place. Consumer and Business related products are assessed separately.

Only products that receive this award gain a TOP3 counter increment for their vendor.

### • Best Android Security: Consumer and Business

This annual award is given once a year for perfect results in the Android security testing over the course of a whole year. Consumer and Business related products are assessed separately.

Only products that receive this award gain a TOP3 counter increment for their vendor.

## AV-Test

- **Best Mac Security: Consumer and Business**

This annual award is given once a year for perfect results in the Mac security testing over the course of a whole year. Consumer and Business related products are assessed separately.

Only products that receive this award gain a TOP3 counter increment for their vendor.

- **Bi-Monthly Certification: Consumer and Business**

This year-long certification series consists of Consumer and Business segments, each divided into six separate, two-month-long tests, which results are published every even months, i.e. this test is counted 6 times in the metrics. Consumer and Business related products are assessed separately. All participating products are evaluated and receive points in Protection, Performance and Usability categories. The sum of the points gained in each category makes up the overall score; products in the top three have their TOP3 counters incremented.

- **Android Mobile Security Products Test: Consumer and Business**

This year-long certification series evaluates various security protection products for Android and consists of Consumer and Business segments, each divided into six separate tests. Their results are published every odd months, i.e. this test is counted 6 times in the metrics. Consumer and Business related products are assessed separately. All participating products are evaluated and receive points in Protection, Performance and Usability categories. The sum of the points gained in each category makes up the overall score; products in the top three have their TOP3 counters incremented.

- **Mac Detection & Performance Test: Consumer and Business**

This test evaluates various security protection products for Mac OS X and consists of Consumer and Business segments, which results are published and counted in the metrics four times a year. Consumer and Business related products are assessed separately. All participating products receive points in Protection, Performance and Usability categories. The sum of the points gained in each category makes up the overall score; products in the top three have their TOP3 counters incremented.

## ICSA Labs

- **Advanced Threat Defense Certification**

This assessment is performed every quarter, i.e. four [1] times a year, and aims to evaluate the efficiency of security solutions to detect new and little-known threats while minimizing false positives.

Each product that passes the certification gains an increment of TOP3 counter for their vendor.

<sup>1</sup> Results for the fourth quarter were not taken into account in the TOP3 metrics as they had not been published by the database freeze deadline.

## MRG Effitas

- **Online Banking/Browser Security Certification**

This test has been conducted and published only one time this year due to being merged [1] with 360 Assessment & Certification since a second quarter. It assesses the efficiency of products against financial malware by implementing different test methodologies and scenarios: 'In The Wild' real financial malware sets, botnet environments, and simulations of different sensitive data interception techniques. Only products that successfully pass the first two steps receive certification and gain a TOP3 counter increment for their vendor.

- **360 Assessment & Certification**

This test is conducted and published four [1] times a year and evaluates both the ability to block initial infection and time taken to detect and remediate malware on a compromised system. This test replaces the older "Time to Detect & Remediate Assessment" test. Only certified products gain an increment of TOP3 counters for their vendor.

- **Android 360 Assessment Programme**

This test is conducted and published four [1] times a year and evaluates both the ability to block initial infection while copying it to the device, so called the Early Stage Detection, and while running it, the Installation Stage. The test also includes a false positive subtest.

Products placing in the highest three positions based on the combined of two stages Detection Rate gain an increment of TOP3 counters for their vendor.

## NSS Labs

- **Advanced Endpoint Protection test v.4**

This test is done once a year and evaluates Advanced Endpoint Protection solutions (AEP) on security effectiveness and total cost of ownership.

Based on total Score, products that achieve the top three places gain an increment of TOP3 counters for their vendor.

## SELabs (formerly known as Dennis Technology Labs)

- **Enterprise Endpoint Protection Test**
- **Home Anti-Malware Protection Test**
- **Small Business Anti-Virus Protection Test**

These quarterly-long tests are published and counted in the metrics four times a year. These tests aim to compare the effectiveness of anti-malware products provided by well-known security companies. Enterprise, Home, and Small Business products are evaluated separately. The products are exposed to live Internet threats during the test period. This exposure is carried out in a very realistic way, closely reflecting the customer experience. The results reflect how products perform under real-life, customer-use-case scenarios, i.e. what happens when a user visits an infected website. The tests include a detection subtest and a false positive one.

Three products with the highest Total Accuracy Rating scores (calculated as a combination of points of the two subsets) gain an increment of TOP3 counters for their vendor.

- **Email Security Services Protection Test**

This test is performed and counted in the metrics one time a year and assesses how effectively the email hosted protection services for the Office365 platform are at detecting and/or protecting against threats in real time, including phishing, BEC (business e-mail compromise), social engineering and real world spam. The test includes a detection subtest and a false positive one.

Three products with the highest Total Accuracy Rating scores (calculated as a combination of points of the two subsets) gain an increment of TOP3 counters for their vendor.

- **Annual Awards “BEST”**

These annual awards are counted in the metrics once a year and given for perfect results in different categories over the course of an entire year: Consumer Anti-Malware, Email Security Service, Endpoint Detection Response, Enterprise Endpoint, Free Anti-Malware, Innovator, New Endpoint, Product Development, Small Business Endpoint. Each award is assessed separately.

Only products that receive one of these awards gain a TOP3 counter increment for their vendor.

## VirusBulletin

- **VB100 Certification**

These tests are held every two months on operating systems Win7 and Win10 in parallel to evaluate different types of products; the reports are published six times a year.

Each product that passes the certification gains an increment of TOP3 counter for their vendor.

- **VBWeb Comparative Review**

This test has been performed one time this year, and measures the ability of participating gateway level products to prevent malicious traffic such as malicious executables and drive-by downloads from infecting an organization's network.

Each product that passes the certification gains an increment of TOP3 counter for their vendor.

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## 2020 TOP3 metric description

- 1E, Acronis,
- AdSpider,
- AhnLab,
- Antiy Labs,
- ArcaBit,
- Avast,
- AVG,
- Avira,
- Bitdefender,
- Blackberry (Cylance),
- BlackFort,
- Broadcom (Symantec),
- BullGuard,
- Carbon Black,
- Check Point,
- Cheetah Mobile,
- Cisco,
- ClamXav,
- Clario,
- CMC Cyber Security,
- Comodo,
- CORE,
- CrowdStrike,
- Cybereason,
- Cynet,
- CyRadar,
- CYREN,
- Deep Instinct,
- Defenx,
- Elastic,
- EmsiSoft,
- eScan,
- ESET,
- ESTsecurity,
- Exosphere,
- Faronics,
- FireEye,
- Fortinet,
- F-Secure,
- G Data,
- Google,
- GoSecure,
- Hammock,
- Heimdal,
- iBoss,
- Ikarus,
- Innovana,
- Intego,
- Juniper,
- K7,
- K7 Computing,
- Kaspersky,
- Lavasoft,
- LINE,
- Malwarebytes,
- McAfee,
- Microsoft,
- Microworld,
- Mimecast,
- NANO,
- NorthGuard,
- NortonLifeLock,
- NSHC,
- Palo Alto,
- Panda,
- PC Pitstop,
- PCProtect,
- Perception-Point,
- Pocket Bits,
- Private Internet Access Inc.,
- Qi-ANXIN,
- Quick Heal,
- Rising,
- SafeDNS,
- Sangfor,
- Scanguard,
- SecureAge,
- Securion,
- SentinelOne,
- Seqrite,
- Sequaretec,
- SK Telecom,
- SonicWall,
- Sophos,
- SparkCognition,
- Tabidus,
- TAPI Security Labs,
- TeamViewer,
- Tencent,
- TGSoft,
- Total Defense,
- TotalAV,
- Trend Micro,
- TrustPort,
- Tuxguard,
- Tweaking Technologies,
- Vendor A,
- Vendor B,
- Vendor C,
- Vendor D,
- VIPRE,
- VMware (CarbonBlack),
- Webroot,
- Wontok,
- Zemana,
- Zoner.