

2014

PC SECURITY LABS

Desktop Security Solution



Performance Review

CPU USAGE

RAM USAGE

Power Consumption

RESOURCE CONSUMPTION

● Video Play – Browsing – File Copy – Installation

Idle

Table of Contents

1.	BACKGROUND.....	2
2.	INTRODUCTION.....	2
3.	REVIEW PROCESS.....	2
4.	PRODUCTS TESTED.....	3
5.	RESULTS.....	4
5.1	AVG. POWER CONSUMPTION OF SYSTEM IDLE (15MINS).....	4
5.2	AVG. CPU USAGE OF SYSTEM IDLE (15MINS).....	5
5.3	AVG. RAM USAGE OF SYSTEM IDLE (15MINS)	6
5.4	AVG. POWER CONSUMPTION OF BROWSING, VIDEO PLAY (15MINS)	7
5.5	AVG. CPU USAGE OF BROWSING,VIDEO PLAY (15MINS).....	8
5.6	AVG. RAM USAGE OF BROWSING,VIDEO PLAY (15MINS)	9
5.7	AVG. POWER CONSUMPTION OF FILE COPY (15MINS)	10
5.8	AVG. CPU USAGE OF FILE COPY (15MINS)	11
5.9	AVG. RAM USAGE OF FILE COPY (15MINS)	12
5.10	AVG. POWER CONSUMPTION OF PROGRAM INSTALLATION (15MINS) ...	13
5.11	AVG. CPU USAGE OF PROGRAM INSTALLATION (15MINS)	14
5.12	AVG. RAM USAGE OF PROGRAM INSTALLATION (15MINS).....	15
5.13	FINAL SCORE.....	16
6.	TESTER INTRODUCTION	17
7.	RIGHTS STATEMENT	17
8.	DISCLAIMER.....	18

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1. BACKGROUND

Any excessive or inappropriate consumption of system resources by software installed on computers and mobility devices will seriously impact the user's experience. Desktop security products (antivirus software), which is a kind of software we use every day, his consumption and occupation of system resources should be paid attention to. Hardware, e.g. CPU, RAM, Power Supply, Battery, supports software for any digital activities. So by monitoring hardware, we can directly evaluate the consumption of system resources and influence to the whole system performance by software. The higher load of hardware, the slower system running speed and higher power consumption will be. Code optimization will enhance the software efficiency, lower power consumption, improve power utilization, which is environmental friendly. We will use professional equipment and software to record the status of hardware and then we can evaluate the performance of software. We are willing to provide a new perspective for evaluating and choosing software.

2. INTRODUCTION

Just take desktop security products for example, suppose that every computer user uses computer 5 hours per day (so we assume we use security products 5 hours per day), a security product whose power consumption is 10 watt above the industry averages, will cost computer users an extra amount of 18.25 kilowatt hour electricity per year, which is \$1.5 extra money depending on the price of electricity in China. If 100 million people install and use security product every day, a total extra amount of 150 million us dolor will be paid.

We are willing to see the combination of lower system resource consumption and higher performance which is really a big challenge for the software programmers. Moreover, we will also use three third party tools for doing the benchmark of security product performance. The final score will be the combination of system resource consumption and also security product performance.

3. REVIEW PROCESS

The updated image of windows 8.1 x64 system will be prepared. Everfine power meter will provide the electricity to the computer.

The detailed hardware is as follows:

CPU: AMD A4-3300 2.5GHz/SOCKET FM1/1M/65w

RAM: 8GB DDR3

Twelve sets of data will be recorded, which is average CPU usage, average RAM usage and average power consumption usage under four different scenarios: system idle, web browsing, file copy and program installation. Full mark for each set is 8.333333333 and the total weighted score indicates the performance of the security products.

4. PRODUCTS TESTED

Software	Version
360 Antivirus	5.0.0.4113
avast! Free Antivirus	2014.9.0.2011
Avira Free Antivirus	14.0.2.286
Baidu Antivirus	1.7.0.1166
Bitdefender Windows 8 Security	16.34.0.1913
BullGuard Internet Security	14.0.276.1
Dr.Web Security Space	9.0.0.12100
ESET Smart Security	7.0.302.26
FortiClient	5.0.7.333
F-Secure Internet Security	14.99 build 103
K7 Ultimate Security	14.1.0216
Kaspersky Internet Security	14.0.0.4651(d)
Kingsoft New Duba	2013.SP6.0.011420
Malwarebytes Anti-Malware Pro	1.75.0.1300
McAfee Internet Security	12.8.903
NANO Antivirus	0.28.057029
Norton Internet Security	21.1.0.18
Panda Cloud Antivirus FREE	2.1.1
Rising Antivirus	24.00.12.91
Tencent PC Manager	8.9.10869
Trend Micro Titanium Maximum Security	7.0.1206-USOB022001.2336
VIPRE Internet Security	7.0.6.2
Windows Defender	4.3.9600.16384
ZoneAlarm Free Antivirus + Firewall version	12.0.104.000

5. RESULTS

5.1 AVG. POWER CONSUMPTION OF SYSTEM IDLE (15MINS)

Software	Avg. PC: walt*	Rank	Score
Kingsoft New Duba	43.019	1	8.3333333333
Windows Defender	43.471	2	8.066968390
K7 Ultimate Security	43.748	3	7.903731466
BullGuard Internet Security	44.738	4	7.320321524
avast! Free Antivirus	45.645	5	6.785823728
Bitdefender Windows 8 Security	45.719	6	6.742215308
Avira Free Antivirus	46.031	7	6.558352780
ESET Smart Security	46.215	8	6.449921033
Tencent PC Manager	46.369	9	6.359168376
McAfee Internet Security	46.459	10	6.306131108
FortiClient	46.878	11	6.059213163
Baidu Antivirus	47.151	12	5.898333451
VIPRE Internet Security	47.274	13	5.825849186
Trend Micro Titanium Maximum Security	47.464	14	5.713881621
Rising Antivirus	47.933	15	5.437498527
NANO Antivirus	48.725	16	4.970770573
Norton Internet Security	50.420	17	3.971902034
360 Antivirus	50.439	18	3.960705278
Malwarebytes Anti-Malware Pro	50.919	19	3.677839851
Kaspersky Internet Security	52.506	20	2.742616034
Panda Cloud Antivirus FREE	53.970	21	1.879876482
Dr.Web Security Space	54.270	22	1.703085590
F-Secure Internet Security	54.993	23	1.277019541
ZoneAlarm Free Antivirus + Firewall version	57.160	24	0.000000000

- * Avg. PC= Average Power Consumption
- Value of highest Avg. PC=0; Value of lowest Avg. PC=8.333333333
- Other values are based on linear formula

5.2 AVG. CPU USAGE OF SYSTEM IDLE (15MINS)

Software	CPU USAGE: %	Rank	Score
Avira Free Antivirus	5.881	1	8.333333333
Kingsoft New Duba	20.341	2	6.181662887
Windows Defender	23.753	3	5.673951991
K7 Ultimate Security	24.165	4	5.612645751
BullGuard Internet Security	27.399	5	5.131421531
avast! Free Antivirus	28.560	6	4.958662929
Bitdefender Windows 8 Security	29.243	7	4.857031469
FortiClient	29.738	8	4.783374700
Baidu Antivirus	30.902	9	4.610169693
ESET Smart Security	33.214	10	4.266140504
Tencent PC Manager	34.912	11	4.013475469
VIPRE Internet Security	36.300	12	3.806938914
McAfee Internet Security	37.392	13	3.644447619
Rising Antivirus	37.770	14	3.588200632
Trend Micro Titanium Maximum Security	38.593	15	3.465736955
NANO Antivirus	42.849	16	2.832437548
360 Antivirus	43.974	17	2.665035802
Norton Internet Security	47.332	18	2.165360189
Malwarebytes Anti-Malware Pro	47.575	19	2.129201412
Panda Cloud Antivirus FREE	50.090	20	1.754965508
Kaspersky Internet Security	52.806	21	1.350820492
ZoneAlarm Free Antivirus + Firewall version	58.444	22	0.511877340
Dr.Web Security Space	59.584	23	0.342243570
F-Secure Internet Security	61.884	24	0.000000000

- Value of highest CPU usage=0; Value of lowest CPU usage=8.333333333
- Other values are based on linear formula

5.3 AVG. RAM USAGE OF SYSTEM IDLE (15MINS)

Software	RAM Usage: %	Rank	Score
Windows Defender	11.548	1	8.3333333333
avast! Free Antivirus	12.385	2	7.466335198
ESET Smart Security	12.513	3	7.333747669
FortiClient	12.548	4	7.297493267
Tencent PC Manager	12.727	5	7.112077895
Panda Cloud Antivirus FREE	12.783	6	7.054070851
Rising Antivirus	12.860	7	6.974311166
Kingsoft New Duba	13.494	8	6.317588564
BullGuard Internet Security	13.615	9	6.192251916
Baidu Antivirus	13.775	10	6.026517506
VIPRE Internet Security	13.888	11	5.909467578
Trend Micro Titanium Maximum Security	13.997	12	5.796561011
Norton Internet Security	14.124	13	5.665009323
Bitdefender Windows 8 Security	14.532	14	5.242386576
McAfee Internet Security	14.682	15	5.087010566
Malwarebytes Anti-Malware Pro	14.946	16	4.813548788
360 Antivirus	15.059	17	4.696498861
ZoneAlarm Free Antivirus + Firewall version	15.136	18	4.616739175
Kaspersky Internet Security	15.517	19	4.222084110
Dr.Web Security Space	15.625	20	4.110213383
F-Secure Internet Security	15.635	21	4.099854982
NANO Antivirus	16.253	22	3.459705821
K7 Ultimate Security	16.800	23	2.893101305
Avira Free Antivirus	19.593	24	0.000000000

- Value of highest RAM usage=0; Value of lowest RAM usage=8.333333333
- Other values are based on linear formula

5.4 AVG. POWER CONSUMPTION OF BROWSING, VIDEO PLAY (15MINS)

Software	Avg. PC: walt*	Rank	Score
Malwarebytes Anti-Malware Pro	44.200	1	8.3333333333
Windows Defender	44.322	2	8.254929179
McAfee Internet Security	44.954	3	7.848769954
Bitdefender Windows 8 Security	45.051	4	7.786432225
360 Antivirus	45.060	5	7.780648312
avast! Free Antivirus	45.078	6	7.769080486
Kaspersky Internet Security	45.102	7	7.753656718
Tencent PC Manager	45.119	8	7.742731549
K7 Ultimate Security	45.172	9	7.708670728
BullGuard Internet Security	45.412	10	7.554433048
NANO Antivirus	45.727	11	7.351996093
Panda Cloud Antivirus FREE	45.773	12	7.322433871
Kingsoft New Duba	45.904	13	7.238245803
Rising Antivirus	46.134	14	7.090434693
VIPRE Internet Security	46.388	15	6.927199815
Avira Free Antivirus	46.550	16	6.823089381
F-Secure Internet Security	46.684	17	6.736973343
Baidu Antivirus	46.689	18	6.733760058
Trend Micro Titanium Maximum Security	46.712	19	6.718978947
Dr.Web Security Space	47.028	20	6.515899334
ZoneAlarm Free Antivirus + Firewall version	47.998	21	5.892522043
FortiClient	48.707	22	5.436878229
Norton Internet Security	48.718	23	5.429809002
ESET Smart Security	57.167	24	0.000000000

- * Avg. PC= Average Power Consumption
- Value of highest Avg. PC=0; Value of lowest Avg. PC=8.333333333
- Other values are based on linear formula
- Using IE 10 to visit 5 same links and play a same video using windows media player

5.5 AVG. CPU USAGE OF BROWSING, VIDEO PLAY (15MINS)

Software	CPU USAGE: %	Rank	Score
BullGuard Internet Security	8.835	1	8.333333333
Kingsoft New Duba	14.034	2	7.391874371
K7 Ultimate Security	14.193	3	7.363081915
Dr.Web Security Space	14.258	4	7.351311415
avast! Free Antivirus	14.311	5	7.341713930
Malwarebytes Anti-Malware Pro	14.373	6	7.330486683
NANO Antivirus	14.740	7	7.264028626
360 Antivirus	14.795	8	7.254068972
Windows Defender	15.007	9	7.215679031
Kaspersky Internet Security	15.303	10	7.162077982
McAfee Internet Security	15.474	11	7.131112511
Tencent PC Manager	15.636	12	7.101776802
Bitdefender Windows 8 Security	15.788	13	7.074251939
Baidu Antivirus	16.503	14	6.944776433
VIPRE Internet Security	16.509	15	6.943689925
Panda Cloud Antivirus FREE	17.861	16	6.698863513
FortiClient	18.125	17	6.651057172
Trend Micro Titanium Maximum Security	18.285	18	6.622083632
Rising Antivirus	18.300	19	6.619367363
F-Secure Internet Security	19.014	20	6.490072941
ZoneAlarm Free Antivirus + Firewall version	23.082	21	5.753420689
Norton Internet Security	25.727	22	5.274451857
Avira Free Antivirus	32.193	23	4.103558675
ESET Smart Security	54.854	24	0.000000000

- Value of highest CPU usage=0; Value of lowest CPU usage=8.333333333
- Other values are based on linear formula
- Using IE 10 to visit 5 same links and play a same video using windows media player

5.6 AVG. RAM USAGE OF BROWSING, VIDEO PLAY (15MINS)

Software	RAM Usage: %	Rank	Score
Avira Free Antivirus	13.209	1	8.333333333
Windows Defender	17.704	2	4.291212546
FortiClient	17.957	3	4.063702745
Tencent PC Manager	18.870	4	3.242689112
Rising Antivirus	19.112	5	3.025071041
avast! Free Antivirus	19.193	6	2.952231934
ESET Smart Security	19.386	7	2.778677026
Baidu Antivirus	19.657	8	2.534980756
VIPRE Internet Security	19.795	9	2.410884501
Malwarebytes Anti-Malware Pro	19.818	10	2.390201791
Panda Cloud Antivirus FREE	19.895	11	2.320959678
BullGuard Internet Security	19.971	12	2.252616812
Norton Internet Security	20.227	13	2.022409266
Bitdefender Windows 8 Security	20.426	14	1.843458868
Kingsoft New Duba	20.514	15	1.764325024
Trend Micro Titanium Maximum Security	20.824	16	1.485558073
Kaspersky Internet Security	20.904	17	1.413618215
NANO Antivirus	21.303	18	1.054818172
360 Antivirus	21.352	19	1.010755009
Dr.Web Security Space	21.722	20	0.678033164
McAfee Internet Security	21.847	21	0.565627136
ZoneAlarm Free Antivirus + Firewall version	22.017	22	0.412754937
F-Secure Internet Security	22.155	23	0.288658681
K7 Ultimate Security	22.476	24	0.000000000

- Value of highest RAM usage=0; Value of lowest RAM usage=8.333333333
- Other values are based on linear formula
- Using IE 10 to visit 5 same links and play a same video using windows media player

5.7 AVG. POWER CONSUMPTION OF FILE COPY (15MINS)

Software	Avg. PC: walt*	Rank	Score
McAfee Internet Security	44.616	1	8.333333333
Tencent PC Manager	44.740	2	8.260879727
avast! Free Antivirus	45.198	3	7.993268826
ZoneAlarm Free Antivirus + Firewall version	45.713	4	7.692352639
Norton Internet Security	46.028	5	7.508297107
Kingsoft New Duba	46.293	6	7.353456738
360 Antivirus	46.424	7	7.276913009
Baidu Antivirus	47.643	8	6.564647315
Kaspersky Internet Security	48.008	9	6.351376619
Bitdefender Windows 8 Security	49.111	10	5.706890104
Rising Antivirus	49.413	11	5.530430515
F-Secure Internet Security	49.690	12	5.368578507
Avira Free Antivirus	49.767	13	5.323587155
Trend Micro Titanium Maximum Security	49.990	14	5.193287524
Panda Cloud Antivirus FREE	50.422	15	4.940868508
FortiClient	50.741	16	4.754475763
BullGuard Internet Security	50.927	17	4.645795354
NANO Antivirus	52.064	18	3.981442528
Malwarebytes Anti-Malware Pro	52.457	19	3.751811340
Windows Defender	52.459	20	3.750642734
K7 Ultimate Security	53.618	21	3.073435236
ESET Smart Security	53.701	22	3.024938064
VIPRE Internet Security	54.039	23	2.827443556
Dr.Web Security Space	58.878	24	0.000000000

- * Avg. PC= Average Power Consumption
- Value of highest Avg. PC=0; Value of lowest Avg. PC=8.333333333
- Other values are based on linear formula
- Copy bulks of verified clean files from disk d to disk c

5.8 AVG. CPU USAGE OF FILE COPY (15MINS)

Software	CPU USAGE: %	Rank	Score
avast! Free Antivirus	16.375	1	8.333333333
McAfee Internet Security	18.071	2	8.094626852
Tencent PC Manager	19.527	3	7.889699590
Kingsoft New Duba	21.908	4	7.554581588
ZoneAlarm Free Antivirus + Firewall version	22.187	5	7.515313246
360 Antivirus	25.426	6	7.059434536
Norton Internet Security	26.603	7	6.893775616
Baidu Antivirus	31.827	8	6.158514615
Kaspersky Internet Security	32.796	9	6.022131018
Bitdefender Windows 8 Security	38.006	10	5.288840472
Rising Antivirus	38.276	11	5.250838851
Avira Free Antivirus	38.619	12	5.202562717
Trend Micro Titanium Maximum Security	39.362	13	5.097987885
F-Secure Internet Security	39.435	14	5.087713372
BullGuard Internet Security	41.146	15	4.846895690
Panda Cloud Antivirus FREE	41.476	16	4.800449264
FortiClient	42.454	17	4.662798946
NANO Antivirus	43.456	18	4.521770707
Windows Defender	47.827	19	3.906566680
Malwarebytes Anti-Malware Pro	49.396	20	3.685735036
K7 Ultimate Security	51.741	21	3.355683917
ESET Smart Security	53.752	22	3.072642211
VIPRE Internet Security	56.179	23	2.731049858
Dr.Web Security Space	75.583	24	0.000000000

- Value of highest CPU usage=0; Value of lowest CPU usage=8.333333333
- Other values are based on linear formula
- Copy bulks of verified clean files from disk d to disk c

5.9 AVG. RAM USAGE OF FILE COPY (15MINS)

Software	RAM Usage: %	Rank	Score
FortiClient	13.005	1	8.333333333
Windows Defender	13.043	2	8.278518262
Tencent PC Manager	14.625	3	5.996480295
Malwarebytes Anti-Malware Pro	14.679	4	5.918585194
ESET Smart Security	15.040	5	5.397842017
VIPRE Internet Security	15.085	6	5.332929433
BullGuard Internet Security	15.691	7	4.458773296
avast! Free Antivirus	15.875	8	4.193352951
Bitdefender Windows 8 Security	16.007	9	4.002942704
Avira Free Antivirus	16.212	10	3.707229819
Panda Cloud Antivirus FREE	16.592	11	3.159079107
Baidu Antivirus	16.720	12	2.974438867
NANO Antivirus	16.727	13	2.964341354
Trend Micro Titanium Maximum Security	16.844	14	2.795568634
Rising Antivirus	17.152	15	2.351278057
F-Secure Internet Security	17.306	16	2.129132768
Kaspersky Internet Security	17.454	17	1.915642490
Norton Internet Security	17.574	18	1.742542265
ZoneAlarm Free Antivirus + Firewall version	17.639	19	1.648779643
Kingsoft New Duba	17.732	20	1.514626969
K7 Ultimate Security	17.971	21	1.169869021
McAfee Internet Security	18.102	22	0.980901275
360 Antivirus	18.404	23	0.545265709
Dr.Web Security Space	18.782	24	0.000000000

- Value of highest RAM usage=0; Value of lowest RAM usage=8.333333333
- Other values are based on linear formula
- Copy bulks of verified clean files from disk d to disk c

5.10 AVG. POWER CONSUMPTION OF PROGRAM INSTALLATION (15MINS)

Software	Avg. PC: walt*	Rank	Score
VIPRE Internet Security	43871	1	8.3333333333
avast! Free Antivirus	46521	2	7.230710339
NANO Antivirus	47874	3	6.667748485
BullGuard Internet Security	48360	4	6.465531589
Kingsoft New Duba	48642	5	6.348195859
Avira Free Antivirus	49005	6	6.197157313
K7 Ultimate Security	49126	7	6.146811131
FortiClient	49947	8	5.805206045
Panda Cloud Antivirus FREE	50046	9	5.764013714
Norton Internet Security	51094	10	5.327957526
McAfee Internet Security	51947	11	4.973037747
360 Antivirus	52250	12	4.846964250
Windows Defender	52587	13	4.706743892
ZoneAlarm Free Antivirus + Firewall version	52757	14	4.636009587
Rising Antivirus	52763	15	4.633513082
Baidu Antivirus	53110	16	4.489131882
F-Secure Internet Security	53328	17	4.398425538
Bitdefender Windows 8 Security	53784	18	4.208691166
ESET Smart Security	54610	19	3.865005659
Trend Micro Titanium Maximum Security	55580	20	3.461404034
Kaspersky Internet Security	55845	21	3.351141735
Tencent PC Manager	56299	22	3.162239531
Malwarebytes Anti-Malware Pro	58266	23	2.343802011
Dr.Web Security Space	63899	24	0.000000000

- * Avg. PC= Average Power Consumption
- Value of highest Avg. PC=0; Value of lowest Avg. PC=8.333333333
- Other values are based on linear formula
- Install 5 regular software and one big pc game during the 15mins, take no action when finishes all the installation process

5.11 AVG. CPU USAGE OF PROGRAM INSTALLATION (15MINS)

Software	CPU USAGE: %	Rank	Score
VIPRE Internet Security	24739	1	8.333333333
avast! Free Antivirus	27839	2	7.919417206
Kingsoft New Duba	31749	3	7.397348800
NANO Antivirus	32992	4	7.231381786
BullGuard Internet Security	35439	5	6.904655088
Avira Free Antivirus	35514	6	6.894640988
Panda Cloud Antivirus FREE	38411	7	6.507829691
K7 Ultimate Security	38793	8	6.456824542
Norton Internet Security	41870	9	6.045979406
FortiClient	44551	10	5.688008716
Baidu Antivirus	47934	11	5.236306052
McAfee Internet Security	48884	12	5.109460787
360 Antivirus	49164	13	5.072074815
Rising Antivirus	49198	14	5.067535089
Bitdefender Windows 8 Security	51965	15	4.698081566
Windows Defender	52016	16	4.691271978
ZoneAlarm Free Antivirus + Firewall version	52543	17	4.620906236
ESET Smart Security	54094	18	4.413814651
F-Secure Internet Security	56707	19	4.064923412
Trend Micro Titanium Maximum Security	61560	20	3.416944391
Kaspersky Internet Security	63152	21	3.204378431
Tencent PC Manager	66181	22	2.799942319
Malwarebytes Anti-Malware Pro	66993	23	2.691522998
Dr.Web Security Space	87151	24	0.000000000

- Value of highest CPU usage=0; Value of lowest CPU usage=8.333333333
- Other values are based on linear formula
- Install 5 regular software and one big pc game during the 15mins, take no action when finishes all the installation process

5.12 AVG. RAM USAGE OF PROGRAM INSTALLATION (15MINS)

Software	RAM Usage: %	Rank	Score
avast! Free Antivirus	12864	1	8.3333333333
FortiClient	12897	2	8.290005777
Windows Defender	13021	3	8.127199202
Panda Cloud Antivirus FREE	13765	4	7.150359750
Baidu Antivirus	14040	5	6.789296781
VIPRE Internet Security	14147	6	6.648810462
Tencent PC Manager	14221	7	6.551651699
Avira Free Antivirus	14436	8	6.269366105
Kingsoft New Duba	14634	9	6.009400767
ZoneAlarm Free Antivirus + Firewall version	15292	10	5.145475553
BullGuard Internet Security	15295	11	5.141536684
ESET Smart Security	15367	12	5.047003834
Trend Micro Titanium Maximum Security	15392	13	5.014179928
Malwarebytes Anti-Malware Pro	15836	14	4.431227352
McAfee Internet Security	16057	15	4.141064020
Norton Internet Security	16072	16	4.121369676
Kaspersky Internet Security	16392	17	3.701223675
360 Antivirus	16456	18	3.617194475
Bitdefender Windows 8 Security	16697	19	3.300772018
NANO Antivirus	16794	20	3.173415262
Dr.Web Security Space	17408	21	2.367260123
Rising Antivirus	17645	22	2.056089491
F-Secure Internet Security	17745	23	1.924793866
K7 Ultimate Security	19211	24	0.000000000

- Value of highest RAM usage=0; Value of lowest RAM usage=8.333333333
- Other values are based on linear formula
- Install 5 regular software and one big pc game during the 15mins, take no action when finishes all the installation process

5.13 FINAL SCORE

Software	Score	Rank	Recommendation
avast! Free Antivirus	81.277264194	1	High Recommendation
Windows Defender	75.297017217	2	
Kingsoft New Duba	73.404640705	3	Recommendation
FortiClient	71.825547856	4	Recommendation
Tencent PC Manager	70.232812365	5	Recommendation
BullGuard Internet Security	69.247565865	6	Recommendation
Avira Free Antivirus	67.746211599	7	Recommendation
VIPRE Internet Security	66.030929894	8	Recommendation
Baidu Antivirus	64.960873408	9	Recommendation
McAfee Internet Security	62.215522909	10	
Bitdefender Windows 8 Security	60.751994415	11	
Panda Cloud Antivirus FREE	59.353769936	12	
Rising Antivirus	57.624568506	13	
Norton Internet Security	56.168863266	14	
360 Antivirus	55.785559026	15	
NANO Antivirus	55.473856954	16	
Trend Micro Titanium Maximum Security	54.782172634	17	
K7 Ultimate Security	51.683855013	18	
Malwarebytes Anti-Malware Pro	51.497295788	19	
Kaspersky Internet Security	49.190767520	20	
ZoneAlarm Free Antivirus + Firewall version	48.446151087	21	
ESET Smart Security	45.649732668	22	
F-Secure Internet Security	41.866146951	23	
Dr.Web Security Space	23.068046580	24	

- We use windows defender as a baseline
- Score above 10% higher than windows defender will be marked blue as high recommendation
- Score between 10% higher than windows defender and 10% lower than windows defender will be marked green as recommendation

6. TESTER INTRODUCTION

JIAXING CHENXIANG INFORMATION TECHNOLOGY CO., LTD., is an IT product test and consulting company located in Jiaxing, Zhejiang Province, China. As a professional tester of desktop security products and also mobility security solutions, we are willing to provide references to the endpoint users for choosing security solutions. Not only we test security solutions for different environment and customers, but also we provide test and consulting reports of other IT products, e.g. battery, mobility devices, computer power, etc.

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