

PERFORMANCE TESTS: SUPER VGA GRAPHICS ADAPTERS
GRAPHICS PERFORMANCE TESTS FOR MICROSOFT WINDOWS, VERSION 3.0

800-by-600 Resolution, 16 Colors
(Lower scores represent better performance)

	Aligned BitBlt Average Time (milliseconds)
Genoa SuperVGA 6400VC	23.63
Ahead VGA Wizard/Deluxe 5.0	22.81
Focus 2 the Max VGA 4000	15.43
PCGC Photon Ultima Turbo	15.14
Cardinal VGA732	14.7
Micro Express VGA/72 Hz	14.48
Micro-Labs Ultimate VGA/HiColor	14.48
STB PowerGraph Ergo-VGA	14.44
United Ultra-Image HiColor	14.44
SigmaVGA Legend	14.41
Boca SuperVGA	14.34
Prism Excelsior	14.27
SOTA LightningVGA	14.23
Everex VRAM VGA	14.15
Orchid ProDesigner IIs	14.13
Diamond SpeedSTAR HiColor VGA	14.07
Trident Impact III	13.83
ATI VGA Integra	12.17
Video Seven VRAM II	10.94
ATI VGAWonder XL	10.07
Desktop Quikdraw VGA	9.36

800-by-600 Resolution, 256 Colors
(Lower scores represent better performance)

Aligned BitBlt
Average Time
(milliseconds)

ATI VGA Integra	228.24
Genoa SuperVGA 6400VC	152.72
Ahead VGA Wizard/Deluxe 5.0	139.45
Everex VRAM VGA	94.72
Prism Excelsior	88.43
PCGC Photon Ultima Turbo	81.25
Trident Impact III	71.73
Focus 2 the Max VGA 4000	40.6
ATI VGAWonder XL	37.83
SigmaVGA Legend	37.62
Cardinal VGA732	36.97
STB PowerGraph Ergo-VGA	36.2
Boca SuperVGA	35.93
Micro-Labs Ultimate VGA/HiColor	33.39
United Ultra-Image HiColor	33.02
SOTA LightningVGA	32.83
Diamond SpeedSTAR HiColor VGA	32.16
Orchid ProDesigner IIs	31.82
Micro Express VGA/72 Hz	28.74
Video Seven VRAM II	23.26
Desktop Quikdraw VGA	18.31

Nonaligned BitBlt Average Time (milliseconds)	Screen- to-Screen BitBlt Average Time (milliseconds)	Memory-to- Screen BitBlt Average Time (milliseconds)
141.35	135.18	93.03
124.74	124.37	90.48
75.98	91.86	72.67
87.29	99.23	76.28
73.77	88.06	70.55
69.22	84.46	69.09
69.61	86.02	69.84
72.59	86.8	69.82
69.26	85.15	68.9
76.2	91.85	72.07
72.06	86.05	69.48
71.96	86.41	69.6
67.51	81.15	66.03
74.6	89.93	71.49
66.97	81.67	65.9
68.28	85.85	69.87
81.3	90.25	68.41
74.86	89.02	69.46
70.23	83.85	66.52
69.08	81.87	65.34
65.63	76.39	62.07

Nonaligned BitBlt Average Time (milliseconds)	Screen- to-Screen BitBlt Average Time (milliseconds)	Memory-to- Screen BitBlt Average Time (milliseconds)
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426.74	761.13	761.32
152.84	1216.27	426.85
139.31	461.48	158.25
94.82	964.76	147.84
88.37	642.03	144.68
85.53	143.52	150.02
76.88	132.04	142.88
78	655.64	144.15
38.37	75.26	134.29
72.6	625.43	131.24
70.75	654.63	142.06
68.87	636.74	132.15
68.46	629.75	130.61
63.6	652.24	141.4
62.86	644.87	139.65
62.42	619.4	139.33
63.5	645.14	139.86
62.33	639.85	143.03
54.45	621.69	130.13
82.9	112.73	110.09
36.79	129.38	134.17

Random Rectangles Average Time (milliseconds)	Dialog Boxes Average Time (milliseconds)	Aligned-Text Scroll Average Time (milliseconds)
8.88	439.42	20.95
7.61	396.17	19.74
5.95	429.19	34.23
6.39	374.46	13.85
5.92	426.97	34.02
6.37	398.43	33.87
5.93	414.05	33.77
5.93	424.45	33.76
5.83	406.75	33.52
6.28	346.49	13.45
5.81	420.07	33.35
5.78	422.7	33.44
5.8	404.89	30.49
6.25	346.59	13.49
6.03	357.17	13.02
5.84	411.57	34.65
5.9	315.8	12.22
5.55	347.14	11.6
4.81	333.42	10.4
4.84	331.8	10
4.35	320.62	9.35

Random Rectangles Average Time (milliseconds)	Dialog Boxes Average Time (milliseconds)	Aligned-Text Scroll Average Time (milliseconds)
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38.63	2505.46	191.24
55.5	1818.62	126.04
22.41	695.17	120.35
16.14	549.21	80.89
36.46	665.38	121.44
18.92	616.77	71.93
17.25	582.55	65.07
8.99	791.38	60.12
8.93	506.28	36.21
9.14	530.39	36.06
9.12	781.71	55.44
8.69	728.83	53.99
8.55	722	53.99
8.92	755.85	54.02
8.78	748.93	53.76
8.77	752.96	53.97
8.8	753.09	53.32
8.97	577.71	30.27
9.25	670.79	44.9
8.74	443.54	25.11
10.25	357.23	17.92

Nonaligned- Text Scroll Average Time (milliseconds)	Rectangular Clipping Average Time (milliseconds)
41.21	1.63
37.79	1.54
44.84	1.88
32.4	1.56
44.39	1.87
44.37	1.86
44.36	1.87
44.27	1.87
43.83	1.86
31.54	1.48
43.62	1.84
43.56	1.86
38.03	1.83
31.48	1.5
27.69	1.42
45.51	1.85
27.45	1.2
24.62	1.39
23.63	1.34
22.69	1.35
21.6	1.31

Nonaligned- Text Scroll Average Time (milliseconds)	Rectangular Clipping Average Time (milliseconds)
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342.73	9.93
126.04	5.9
120.42	6.07
80.86	4.45
121.44	5.14
77.84	5.38
68.14	5.14
107.97	5.22
39.81	4.46
63.75	4.37
98.95	5.28
96.07	5.15
95.67	5.08
89.96	5.22
88.5	5.12
87.96	5.16
89.35	5.13
54.93	4.27
77.95	5.13
25.55	4.39
18.46	2.52