

Mobile Workstations Compared

	BOXX GoBOXX SLM17 17.0-inch mobile workstation (2.30GHz Intel Core i9-9880H 8-core CPU, NVIDIA Quadro RTX 3000, 32GB RAM, 512GB NVMe PCIe SSD)	HP ZBook 14u G6 14.0-inch mobile workstation (1.90GHz Intel Core i7-8665U 4-core CPU, AMD Radeon Pro WX3200, 32GB RAM, 512GB NVMe PCIe SSD)	MSI WS65 9TM-856 15.6-inch 2.60GHz Intel Core i7-9750H 6-core CPU, NVIDIA Quadro RTX 5000, 32GB RAM, 512GB NVMe PCIe SSD	Dell Precision 3541 15.6-inch 2.60GHz Intel Core i7-9750H 6-core CPU, NVIDIA Quadro P620, 16GB RAM, 512GB NVMe PCIe SSD	Dell Precision 3540 15.6-inch 1.80GHz Intel Core i7-8565U 4-core CPU, AMD Radeon Pro WX 2100, 16GB RAM, 512GB NVMe PCIe SSD	Lenovo ThinkPad P72 17.3-inch 2.90GHz Intel Xeon E-2186M 6-core CPU, NVIDIA Quadro P5200, 16GB RAM, 500GB NVMe PCIe SSD, 1TB 5400rpm SATA HD
Price as tested	\$4,200.00	\$2,649.00	\$3,499	\$2,0687	\$1,782	\$4,887
Date tested	10/23/2019	8/8/19	7/12/19	7/3/19	7/3/19	3/26/19
Operating System	Windows 10 Pro 64	Windows 10 Pro 64	Windows 10 Pro 64	Windows 10 Pro 64	Windows 10 Pro 64	Windows 10 Pro 64
SPECviewperf 13.0 (higher is better)						
3dsmax-06	148.65	36.42	169.25	47.53	16.54	143.97
catia-05	200.15	35.60	213.02	53.63	31.56	247.85
creo-02	185.52	34.17	210.09	52.16	15.27	213.88
energy-02	29.94	2.61	39.87	8.25	0.42	36.33
maya-05	187.67	34.17	206.74	56.88	35.19	223.95
medical-02	63.59	9.73	80.88	12.63	8.52	51.37
showcase-02	79.50	13.93	92.57	21.87	11.20	69.64
snx-03	218.39	52.78	288.08	71.37	41.00	303.66
sw-04	123.98	46.04	123.16	60.95	49.00	150.18
SPECapc SolidWorks 2015 (higher is better)						
Graphics Composite	5.03	2.27	3.73	4.16	4.14	4.86
Shaded Graphics Sub-Composite	3.01	1.39	2.23	2.69	2.28	3.18
Shaded w/Edges Graphics Sub-Composite	3.89	2.06	2.96	3.51	3.09	4.01
Shaded using RealView Sub-Composite	3.57	1.63	2.63	3.05	2.87	3.62
Shaded w/Edges using RealView Sub-Composite	4.35	2.98	3.12	3.50	4.87	4.11
Shaded using RealView and Shadows Sub-Composite	4.11	1.45	3.04	3.48	3.02	4.15
Shaded with Edges using RealView and Shadows Graphics Sub-Composite	4.56	2.47	3.30	3.66	4.83	4.34
Shaded using RealView and Shadows and Ambient Occlusion Graphics Sub-Composite	13.54	3.01	10.06	10.13	7.75	12.14
Shaded with Edges using RealView and Shadows and Ambient Occlusion Graphics Sub-Composite	13.35	4.58	9.59	9.73	11.27	11.69
Wireframe Graphics Sub-Composite	4.34	2.76	3.50	3.69	3.50	3.95
CPU Composite	5.33	1.85	2.71	4.17	3.37	3.06
SPEC Workstation v3 (higher is better)						
Media and Entertainment	1.98	0.8	1.82	1.37	0.92	1.73
Product Development	2.07	1.04	2.01	1.57	1.21	1.57
Life Sciences	1.99	0.87	1.97	1.00	0.94	1.44
Financial Services	2.16	0.7	1.49	1.41	0.80	1.59
Energy	1.32	0.54	1.28	0.95	0.50	1.11
General Operations	1.79	1.13	1.75	1.67	1.52	1.45
GPU Compute	3.09	0.6	3.41	1.00	0.35	2.76
Time						
AutoCAD Render Test (in seconds, lower is better)	45.90	140.40	43.80	59.70	77.50	42.80
Battery Life (in hours:minutes, higher is better)	8:37	5:30	6:07	15:28	15:17	5:38

Numbers in blue indicate best recorded results. Numbers in red indicate worst recorded results.

Fig. 3: Graphic performance chart based on SPECviewperf 13 Geomean.