

Mobile Workstations Compared

	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	Origin PC NT-15 Quadro 15.6-inch 2.20GHz Intel Core i7-8750HJ 6-core CPU, NVIDIA Quadro P4200, 32GB RAM, 1TB NVMe PCIe SSD, 2TB 5400rpm SATA HD	MSI WS65 BSK 15.6-inch 2.90GHz Intel Core i9-8950HJ 6-core CPU, NVIDIA Quadro P3200, 32GB RAM, 512GB NVMe PCIe SSD
Price as tested	\$3,499	\$2,0687	\$1,782	\$4,887	\$3,938	\$3,249
Date tested	7/12/19	7/3/19	7/3/19	3/26/19	3/11/19	12/12/18
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	169.25	47.53	16.54	143.97	138.82	115.40
catia-05	213.02	53.63	31.56	247.85	178.96	194.32
creo-02	210.09	52.16	15.27	213.88	174.77	152.49
energy-02	39.87	8.25	0.42	36.33	30.46	9.16
maya-05	206.74	56.88	35.19	223.95	167.29	172.92
medical-02	80.88	12.63	8.52	51.37	44.55	32.06
showcase-02	92.57	21.87	11.20	69.64	75.87	61.69
snx-03	288.08	71.37	41.00	303.66	241.75	249.74
sw-04	123.16	60.95	49.00	150.18	124.58	128.91
SPECcapc SolidWorks 2015 (higher is better)						
Graphics Composite	3.73	4.16	4.14	4.86	3.80	4.67
Shaded Graphics Sub-Composite	2.23	2.69	2.28	3.18	2.26	2.98
Shaded w/Edges Graphics Sub-Composite	2.96	3.51	3.09	4.01	3.08	3.88
Shaded using RealView Sub-Composite	2.63	3.05	2.87	3.62	2.70	3.37
Shaded w/Edges using RealView Sub-Composite	3.12	3.50	4.87	4.11	3.19	3.89
Shaded using RealView and Shadows Sub-Composite	3.04	3.48	3.02	4.15	3.13	3.87
Shaded with Edges using RealView and Shadows Graphics Sub-Composite	3.30	3.66	4.83	4.34	3.39	4.11
Shaded using RealView and Shadows and Ambient Occlusion Graphics Sub-Composite	10.06	10.13	7.75	12.14	10.11	12.97
Shaded with Edges using RealView and Shadows and Ambient Occlusion Graphics Sub-Composite	9.59	9.73	11.27	11.69	9.80	12.14
Wireframe Graphics Sub-Composite	3.50	3.69	3.50	3.95	3.50	3.69
CPU Composite	2.71	4.17	3.37	3.06	2.78	4.58
SPEC Workstation v3 (higher is better)						
Media and Entertainment	1.82	1.37	0.92	1.73	1.73	n/a
Product Development	2.01	1.57	1.21	1.57	1.93	n/a
Life Sciences	1.97	1.00	0.94	1.44	1.61	n/a
Financial Services	1.49	1.41	0.80	1.59	1.24	n/a
Energy	1.28	0.95	0.50	1.11	n/a	n/a
General Operations	1.75	1.67	1.52	1.45	1.78	n/a
GPU Compute	3.41	1.00	0.35	2.76	2.20	n/a
Time						
AutoCAD Render Test (in seconds, (lower is better)	43.80	59.70	77.50	42.80	63.80	35.50
Battery Life (in hours:minutes, higher is better)	6:07	15:28	15:17	5:38	4:05	9:01