

Mobile Workstations Compared

	Dell Precision 5550 15.6-inch mobile workstation (2.30GHz Intel Core i7-10875H 8-core CPU, NVIDIA Quadro T2000, 32GB RAM, 1TB NVMe PCIe SSD)	Lenovo ThinkPad P1 G2 OLED 15.6.3-inch mobile workstation (2.80GHz Intel Xeon E-2276M 6-core CPU, NVIDIA Quadro T2000, 32GB RAM, 1TB NVMe PCIe SSD)	Lenovo ThinkPad X1 Extreme G2 OLED 15.6-inch mobile workstation (2.60GHz Intel Core i7-9850H 6-core CPU, NVIDIA GeForce GTX 1650, 32GB RAM, 1TB NVMe PCIe SSD)	HP Zbook 17 G6 17.3-inch mobile workstation (2.40GHz Intel Xeon E-2286M 8-core CPU, NVIDIA Quadro RTX 5000, 32GB RAM, 512GB NVMe PCIe SSD)	Dell Precision 7540 15.6-in. mobile workstation (2.40GHz Intel Core i9-9980H 8-core CPU, NVIDIA Quadro RTX 3000, 32GB RAM, 512GB NVMe PCIe SSD)	Lenovo ThinkPad P53 15.6-in. mobile workstation (2.80GHz Intel Xeon E-2276M 6-core CPU, NVIDIA Quadro RTX 5000, 64GB RAM, 1TB NVMe PCIe SSD)
Price as tested	\$4,355.00	\$3,133.00	\$2,794.00	\$5,654.00	\$3,646.00	\$5,338.00
Date tested	6/24/20	2/16/20	2/16/20	1/24/2019	10/25/2019	10/24/2019
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	91.74	76.32	85.73	185.09	155.08	181.47
catia-05	147.96	126.46	56.36	279.31	209.89	269.51
creo-02	116.59	101.20	75.12	243.95	187.29	255.96
energy-02	17.31	17.11	6.37	42.15	31.69	38.63
maya-05	112.25	102.12	100.62	272.88	183.66	261.90
medical-02	51.11	47.95	24.57	91.59	63.63	85.31
showcase-02	43.99	36.50	36.83	93.46	78.72	63.79
snx-03	144.50	191.81	11.29	361.04	217.45	223.64
sw-04	100.81	86.57	53.45	158.92	130.57	88.51
SPECapc SolidWorks 2015 (higher is better)						
Graphics Composite	3.43	2.81	n/a	5.24	4.27	5.47
Shaded Graphics Sub-Composite	1.77	1.41	n/a	3.23	2.55	3.53
Shaded w/Edges Graphics Sub-Composite	2.67	2.03	n/a	4.21	3.37	4.38
Shaded using RealView Sub-Composite	2.42	1.91	n/a	3.90	3.08	4.05
Shaded w/Edges using RealView Sub-Composite	3.28	2.60	n/a	4.54	3.83	4.73
Shaded using RealView and Shadows Sub-Composite	2.85	2.23	n/a	4.48	3.42	4.59
Shaded with Edges using RealView and Shadows Graphics Sub-Composite	3.45	2.76	n/a	4.85	3.92	4.71
Shaded using RealView and Shadows and Ambient Occlusion Graphics Sub-Composite	7.51	6.92	n/a	13.41	11.30	15.06
Shaded with Edges using RealView and Shadows and Ambient Occlusion Graphics Sub-Composite	8.64	7.79	n/a	13.20	11.13	14.58
Wireframe Graphics Sub-Composite	3.53	3.13	n/a	4.00	3.91	3.92
CPU Composite	3.09	3.19	n/a	3.06	3.76	5.32
SPEC Workstation v3 (higher is better)						
Media and Entertainment	3.53	1.63	1.70	1.87	1.88	2.07
Product Development	3.75	1.62	1.57	1.81	1.91	2.24
Life Sciences	1.59	1.54	1.31	1.94	1.67	1.77
Financial Services	1.54	1.53	1.17	1.96	1.75	1.69
Energy	1.3	0.99	0.99	1.32	1.36	1.37
General Operations	1.96	1.90	1.84	1.55	1.72	1.89
GPU Compute	1.91	1.79	1.84	3.34	3.20	3.31
Time						
AutoCAD Render Test (in seconds, lower is better)	38.9	49.00	44.10	35.40	34.80	49.20
Battery Life (in hours:minutes, higher is better)	10:22	7:14	6:45	4:45	7:51	5:30

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