

Mobile Workstations Compared	MSI WS66 11UMT-220US	Lenovo ThinkPad P15 Gen 1	HP Zbook Studio G7	Lenovo ThinkPad P1 Gen 3	MSI WS66 10TMT	Eurocom Nightsky ARX 15	
	15.6-inch mobile workstation (2.5GHz Intel Core i9-111900H 8-core CPU, NVIDIA RTX A5000, 64GB RAM, 1TB NVMe PCIe SSD)	15.6-in. mobile workstation (2.4GHz Intel Core i9-10885H 8-core CPU, NVIDIA Quadro RTX 5000, 32GB RAM, 1TB NVMe PCIe SSD)	15.6-in. mobile workstation (2.7GHz Intel Core i7-10850H 6-core CPU, NVIDIA Quadro RTX 3000, 32GB RAM, 1TB NVMe PCIe SSD)	15.6-in. mobile workstation (2.7GHz Intel Core i7-10850H 6-core CPU, NVIDIA Quadro T2000, 32GB RAM, 1TB NVMe PCIe SSD)	15.6-in. mobile workstation (2.4GHz Intel Core i9-10980HK 8-core CPU, NVIDIA Quadro RTX 5000, 64GB RAM, 1TB NVMe PCIe SSD)	15.6-in. mobile workstation (3.5GHz AMD Ryzen 9 3950X 16-core CPU, NVIDIA GeForce RTX 2070, 64GB RAM, 2x 4TB NVMe PCIe SSD)	
	Price as tested	4200	\$4,750	\$3,737	\$2,795	\$3,999	\$8,512
	Date tested	8/20/2021	3/11/21	12/22/20	11/2/20	10/1/20	9/2/20
	Operating System		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	202.09	184.60	136.98	84.10	174.60	183.08
	catia-05	261.33	302.43	187.62	140.38	256.00	109.70
	creo-02	239.48	281.58	162.14	113.82	233.21	178.81
	energy-02	64.71	42.73	26.80	17.60	40.50	19.94
maya-05	249.20	285.55	159.19	115.32	228.70	249.96	
medical-02	116.44	114.71	68.57	50.96	103.67	53.19	
showcase-02	111.99	100.73	63.54	44.65	95.62	101.02	
snx-03	320.10	637.86	188.18	147.97	291.91	15.25	
sw-04	160.02	185.32	132.38	105.23	156.49	87.13	
SPECapc SolidWorks 2015 (higher is better)							
Graphics Composite	n/a	5.83	4.64	2.82	5.43	n/a	
Shaded Graphics Sub-Composite	n/a	3.84	2.65	1.43	3.36	n/a	
Shaded w/Edges Graphics Sub-Composite	n/a	4.67	3.61	2.04	4.25	n/a	
Shaded using RealView Sub-Composite	n/a	4.40	3.34	1.92	3.92	n/a	
Shaded w/Edges using RealView Sub-Composite	n/a	5.10	4.05	2.54	4.69	n/a	
Shaded using RealView and Shadows Sub-Composite	n/a	5.03	3.83	2.21	4.49	n/a	
Shaded with Edges using RealView and Shadows Graphics Sub-Composite	n/a	5.34	4.26	2.70	4.94	n/a	
Shaded using RealView and Shadows and Ambient Occlusion Graphics Sub-Composite	n/a	14.87	12.92	7.35	15.06	n/a	
Shaded with Edges using RealView and Shadows and Ambient Occlusion Graphics Sub-Composite	n/a	14.50	12.67	7.82	14.68	n/a	
Wireframe Graphics Sub-Composite	n/a	4.16	3.74	3.08	4.08	n/a	
CPU Composite	n/a	3.62	3.73	3.45	7.13	n/a	
SPEC Workstation v3 (higher is better)							
Media and Entertainment	2.34	2.51	1.64	1.72	2.33	3.43	
Product Development	2.59	2.52	1.76	1.80	2.38	1.56	
Life Sciences	2.39	2.41	1.63	1.52	2.35	2.91	
Financial Services	1.83	1.92	1.26	1.31	1.76	4.72	
Energy	2.79	1.62	1.14	1.02	1.50	2.33	
General Operations	2.06	1.88	1.53	1.96	2.07	2.15	
GPU Compute	5.08	3.55	3.00	1.85	3.61	3.77	
Time							
AutoCAD Render Test (in seconds, lower is better)	41.50	32.00	45.70	43.70	28.70	27.10	
Battery Life (in hours:minutes, higher is better)	4:02	4:42	8:53	7:04	9:50	0:55	