COMPARISON OF 13-INCH-CLASS LAPTOPS

We compared the Dell™ XPS™ 13 laptop to others in its class from vendors including Acer®, Apple®, ASUS®, Fujitsu®, HP, Huawei®, Lenovo®, LG, Microsoft®, Panasonic®, Sager®, Samsung®, Toshiba®, and VAIO®. The figures below compare the systems using publicly available data. Click a system's name to visit its page on the vendor's website. We gathered this data at the links provided on November 10, 2017, and report only what each vendor disclosed on their website.

According to vendor-provided data, the Dell XPS 13:

- is the smallest 13-inch laptop[1]
- has the longest battery life of any 13-inch laptop
- has the highest screen-to-body ratio

Brand	Model	Thinness		Dimensions		Total area (sq. inches)	Weight	
		mm	inches	mm	inches		pounds	kg
Dell	XPS 13	7.8 – 11.6	0.30–0.46	302 × 199	11.98 × 7.88	92.8	2.67 (non-touch) 2.68 (touch)	1.21 (non-touch) 1.21 (touch)
Acer	Swift 1 (SF113-31-P5CK) (SF113-31-P1CS)		0.6		12.6 x 8.9	112.14	2.87	
Acer	Aspire S 13 (S5-371-3164)		0.57–0.6		12.9 x 11.3	145.8	2.87	
Acer	Aspire S 13 (S5-371T-78TA)		0.57–0.6		12.9 x 9	116.1	3	
Acer	Swift 7 (SF713-51-M90J) (SF713-51-M51W)		0.39		12.8 x 9	115.2	2.48	

[1] The smallest dimensions among laptops with a screen measuring 13.3 inches.

Brand	Model	Thinness		Dimensions		Total area (sq. inches)	Weight	
		mm	inches	mm	inches		pounds	kg
Apple	MacBook Air (13-inch)	3–17	0.11–0.68	325 × 227	12.8 × 8.94	114.4	2.96	1.35
Apple	MacBook Pro (13-inch)	14.9	0.59	304.1 x 212.4	11.97 x 8.36	100.1	3.02	1.37
ASUS	ZenBook UX303UA	19.2	0.8	323 x 223	12.7 x 8.8	111.8	3.2	
ASUS	ZenBook UX303UB	19.2	0.8	323 x 223	12.7 x 8.8	111.8	3.2	
ASUS	ZenBook UX305UA		0.63		12.7 x 8.89	112.9	2.86	
ASUS	ZenBook UX305CA		0.5		12.8 x 8.9	113.9	2.65	
ASUS	Zenbook UX305FA		0.5		12.8 x 8.9	113.9	2.6	
ASUS	ZenBook UX306UA		0.54		12.76 x 8.89	113.4	2.9	
ASUS	ZenBook UX330UA		0.53		12.7 x 8.7	112.9	2.64	
Fujitsu	LIFEBOOK U937		0.61–0.67		12.18 x 8.40	102.31	2.03	
HP	Envy 13t		0.55		12.02 x 8.49	102.04	3.06	
HP	Envy 13 - ad055nr Envy 13 - ad057nr Envy 13 - ad056nr		0.55		12.04 x 8.49	102.21	2.92	
HP	EliteBook 1030 G1		0.62		12.2 x 8.27	100.9	2.55	
HP	Spectre - 13t		0.41		12.8 x 9.03	115.6	2.45	
HP	ProBook 430 G4		0.78		12.99 x 9.19	119.4	3.28	
HP	ProBook 430 G5		0.78		12.83 x 9.21	118.16	3.28	
Huawei	MateBook X		0.49		11.26 x 8.31	93.57	2.31	
Lenovo	ThinkPad 13 2nd Gen		0.77		12.69 x 8.77	111.29	3.17	
Lenovo	Ideapad 710S		0.55		12.09 x 8.42	101.8	2.6	

Brand	Model	Thinness		Dimensions		Total area (sq. inches)	Weight	
		mm	inches	mm	inches		pounds	kg
Lenovo	Ideapad 710S Plus		0.58		12.16 x 8.66	105.3	2.6	
LG	gram (13Z970-A.AAS5U1) (13Z970-U.AAW5U1)		0.6		12.1 x 8.3	100.43	2.07	
Microsoft	Surface Laptop		0.57		12.13 x 8.79	106.6	2.76	
Panasonic	Toughbook 31		2.9		11.5 x 11.9	136.9	7.9	
Sager	NP3132 Notebook		0.7		12.98 x 8.86	115	2.87	
Samsung	Notebook 9 Pro (NP940X3M-K01US) (NP940X3M-K03US)		0.63		12.21 x 8.54	104.27	2.9	
Samsung	Notebook 9 (NP900X3L-K06US)		0.53		12.35 x 8.6	106.2	2.8	
Samsung	Notebook 9 (NP900X3N-K01US) (NP900X3N-K04US)		0.55		12.18 x 8.19	99.75	1.8	
Toshiba	Portege X30		0.6		12.4 x 8.9	110.36	2.31	
Toshiba	Portege A30		0.84		12.4 x 9.0	111.6	3.44	
Toshiba	Portege Z30		0.55–0.70		12.4 x 8.9	110.4	2.65	
VAIO	VAIO Z		0.59–0.66		12.76 x 8.48	108.2	2.58	
VAIO	VAIO S		0.52–0.71		12.68 x 8.53	108.1	2.34	

Figure 1: Dimensional information. All links and data current as of 11/29/2017.

Brand	Model	Battery info	Battery claim
Dell	XPS 13	52Whr battery	Up to 19 hours, 46 minutes (MM14)
Acer	Swift 1 (SF113-31-P5CK) (SF113-31-P1CS)	3-cell Lithium Ion	10 hours
Acer	Aspire S 13 (S5-371-3164)	3-cell Lithium Ion (Li-Ion) 4030 mAh	11 hours listed on the overview page 13 hours listed on the features page
Acer	Aspire S 13 (S5-371T-78TA)	3-cell Lithium Polymer (Li-Po) 4670 mAh	13 hours listed on features page
Acer	Swift 7 (SF713-51-M90J) (SF713-51-M51W)	4-cell Lithium Ion (Li-Ion) 2770 mAh	9 hours
Apple	MacBook Air (13-inch)	Built-in 54 Wh Li-Po battery	12 hours wireless Web time 12 hours iTunes Movie Playback
Apple	MacBook Pro (13-inch)	Built-in 49.2 Wh Li-Po battery	10 hours wireless Web time 10 hours iTunes Movie Playback
ASUS	ZenBook UX303UA	3-cells Polymer Battery 50 Whrs	7 hours
ASUS	ZenBook UX303UB	3-cells Polymer Battery 50 Whrs	7 hours
ASUS	ZenBook UX305UA	56 Whrs Polymer Battery	12 hours
ASUS	ZenBook UX305CA	45 Whrs Polymer Battery	10 hours (MM2014)
ASUS	Zenbook UX305FA	44 Whrs Polymer Battery	10 hours daily working 8 hours video playing
ASUS	ZenBook UX306UA	57 Whrs	7 hours
ASUS	ZenBook UX330UA	57 Whrs Polymer Battery	Up to 12 Hours web browsing
Fujitsu	LIFEBOOK U937	Li-Ion battery 4-cell, 50 Wh	Up to 15 hours and 30 mins (MM2014)

Brand	Model	Battery info	Battery claim
HP	Envy 13t	6-cell, 53.6 Wh Li-ion	Up to 14 hours and 15 mins with FHD panel (MM2014) Up to 10 hours with UHD panel (MM2014)
HP	Envy 13 - ad055nr Envy 13 - ad057nr Envy 13 - ad056nr	6-cell, 53.6 Wh Li-ion	Up to 14 hours (mixed usage) UP to 12 hours (video playback)
HP	EliteBook 1030 G1	4-cell, 40 WHr Li-ion	No official claim. LAPTOP Magazine claims 13 hours.
HP	Spectre - 13t	4-cell 38 Wh Li-ion	9 hours and 45 minutes
HP	ProBook 430 G4	3-cell, 48 WHr Li-ion	No official claim. MS Poweruser claims 16 hours.
HP	ProBook 430 G5	3-cell, 48 WHr Li-ion	Up to 17 hours and 30 minutes ((MM2014)
Huawei	MateBook X	41.4 Wh (5449mAh@7.6V)	No official claim. LAPTOP Magazine claims 8 hours, 41 minutes.
Lenovo	ThinkPad 13 2nd Gen	3-cell, 42 Wh	Up to 11 hours
Lenovo	Ideapad 710S	4-cell, 46 Wh, Li-Cylindrical	8 hours of local video playback
Lenovo	Ideapad 710S Plus	46 Wh	Up to 7 hours
LG	gram (13Z970-A.AAS5U1) (13Z970-U.AAW5U1)	60 Wh	Up to 15 hours
Microsoft	Surface Laptop	Not listed	Up to 14.5 hours
Panasonic	Toughbook 31	60 Wh	Up to 18 hours
Sager	NP3132 Notebook	Embedded Polymer Smart Lithium-Ion, 36 Wh	No official claim No 3rd party claim
Samsung	Notebook 9 Pro (NP940X3M-K01US) (NP940X3M-K03US)	4-cell / Li-Ion 54 Wh	Up to 11.5 hours (MM2014)
Samsung	Notebook 9 (NP900X3L-K06US)	2-cell / Li-Ion 30 Wh	10 hours (MM2007) 7.5 hours (MM2014)

Brand	Model	Battery info	Battery claim
Samsung	Notebook 9 (NP900X3N-K01US) (NP900X3N-K04US)	2-cell / Li-Ion 30 Wh	No official claim. LaptopSuggest claims up to 10 hours of moderate-to-light use.
Toshiba	Portege X30	4-cell, Li-Ion, 45 Wh	No official claim. Notebook Check claims 14 hours, 58 minutes while idle, without WLAN, and at minimum brightness. They also claim 7 hours while using WiFi.
Toshiba	Portege A30	4-cell, Li-Ion, 45 Wh	11 hours (MM2014)
Toshiba	Portege Z30	4-cell, Li-Ion, 52 Wh	15.25 hours (MM2014)
VAIO	VAIO Z	Lithium Polymer	Up to 15 hours, 30 minutes
VAIO	VAIO S	Lithium Polymer	Up to 9 hours

Figure 2: Battery information. All links and data current as of 11/29/2017.

Brand	Model	Panel active area (sq. mm)	System active area (sq. mm)	Screen-to-body ratio	Aspect ratio
Dell	XPS 13	48,540	60,098	80.8%	16:9
Acer	Swift 1 (SF113-31-P5CK) (SF113-31-P1CS)	48,764	72,320	67.4%	16:9
Acer	Aspire S 13 (S5-371-3164)	48,764	94,136	51.8%	16:9
Acer	Aspire S 13 (S5-371T-78TA)	48,764	75,112	64.9%	16:9
Acer	Swift 7 (SF713-51-M90J) (SF713-51-M51W)	48,764	74,425	65.5%	16:9
Apple	MacBook Air (13-inch)	51,290	73,775	69.5%	16:10

Brand	Model	Panel active area (sq. mm)	System active area (sq. mm)	Screen-to-body ratio	Aspect ratio
Apple	MacBook Pro (13-inch)	51,290	64,448	79.6%	16:10
ASUS	ZenBook UX303UA	48,764	72,029	67.7%	16:9
ASUS	ZenBook UX303UB	48,764	72,029	67.7%	16:9
ASUS	ZenBook UX305UA	48,764	72,998	66.8%	16:9
ASUS	ZenBook UX305CA	48,764	73,450	66.4%	16:9
ASUS	Zenbook UX305FA	48,764	73,450	66.4%	16:9
ASUS	ZenBook UX306UA	48,764	73,224	66.6%	16:9
ASUS	ZenBook UX330UA	48,764	71,383	68.3%	16:9
Fujitsu	LIFEBOOK U937	48,764	65,817	74.1%	16:9
HP	Envy 13t	48,764	65,880	74.0%	16:9
HP	Envy 13 - ad055nr Envy 13 - ad057nr Envy 13 - ad056nr	48,764	66,096	73.8%	16:9
HP	EliteBook 1030 G1	48,764	65,100	74.9%	16:9
HP	Spectre - 13t	48,764	74,425	65.5%	16:9
HP	ProBook 430 G4	48,764	76,890	63.4%	16:9
HP	ProBook 430 G5	48,764	76,284	63.9%	3:2
Huawei	MateBook X	50,322	60,346	83.4%	16:9
Lenovo	ThinkPad 13 2nd Gen	48,764	71,806	67.9%	16:9
Lenovo	Ideapad 710S	48,764	65,698	74.2%	16:9
Lenovo	Ideapad 710S Plus	48,764	67,980	71.7%	16:9

Brand	Model	Panel active area (sq. mm)	System active area (sq. mm)	Screen-to-body ratio	Aspect ratio
LG	gram (13Z970-A.AAS5U1) (13Z970-U.AAW5U1)	48,764	64,777	75.3%	3:2
Panasonic	Toughbook 31	53,143	88,184	60.3%	4:3
Sager	NP3132 Notebook	48,764	74,250	65.7%	16:9
Samsung	Notebook 9 Pro (NP940X3M-K01US) (NP940X3M-K03US)	48,764	67,270	72.5%	16:9
Samsung	Notebook 9 (NP900X3L-K06US)	48,764	68,452	71.2%	16:9
Samsung	Notebook 9 (NP900X3N-K01US) (NP900X3N-K04US)	48,764	64,272	75.9%	16:9
Toshiba	Portege X30	48,764	71,190	68.5%	16:9
Toshiba	Portege A30	48,764	72,135	67.6%	16:9
Toshiba	Portege Z30	48,764	71,190	68.5%	16:9
VAIO	VAIO Z	48,764	69,660	70.0%	16:9
VAIO	VAIO S	48,764	69,874	69.8%	16:9

Figure 3: Screen information. All links and data current as of 11/29/2017.

ABOUT PRINCIPLED TECHNOLOGIES

Principled Technologies, Inc.
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