

# 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®, Samsung®, Toshiba®, and VAIO®. Figure 1 compares 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 September 6, 2017, and report only what each vendor disclosed on their website.

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

- is the smallest 13.3-inch laptop<sup>1</sup>
- has the longest battery life of any 13-inch laptop

Brand	Model	Thickness		Dimensions		Total area (sq. inches)	Weight	
		mm	inches	mm	inches		Lbs.	Kg.
Dell	<a href="#">XPS 13</a>	9mm-15mm	0.33-0.6	304 × 200	11.98 × 7.88	94.4	2.7 (non-touch) 2.9 (touch)	1.2 (non-touch) 1.29 (touch)
Acer	<a href="#">Swift 1</a> ( <a href="#">SF113-31-P5CK</a> ) ( <a href="#">SF113-31-P1CS</a> )		0.6		12.6 × 8.9	112.14	2.87	
Acer	<a href="#">Aspire S 13</a> ( <a href="#">S5-371-52JR</a> ) ( <a href="#">S5-371-55DC</a> ) ( <a href="#">S5-371-3164</a> )		0.57-0.6		12.9 × 11.3	145.8	2.87	
Acer	<a href="#">Aspire S 13</a> ( <a href="#">S5-371T-58CC</a> ) ( <a href="#">S5-371T-76CY</a> )		0.57-0.6		12.9 × 9	116.1	3	
Acer	<a href="#">Aspire S 13</a> ( <a href="#">S5-371T-78TA</a> )		0.57-0.6		12.9 × 9	116.1	3	
Acer	<a href="#">Swift 7</a> ( <a href="#">SF713-51-M90J</a> ) ( <a href="#">SF713-51-M51W</a> )		0.39		12.8 × 9	115.2	2.48	

<sup>1</sup> The smallest dimensions among laptops with a screen measuring 13.3 inches.



Brand	Model	Thickness		Dimensions		Total area (sq. inches)	Weight	
		mm	inches	mm	inches		Lbs.	Kg.
Apple	<a href="#">MacBook Air (13-inch)</a>	3mm-17mm	0.11-0.68	325 x 227	12.8 x 8.94	114.4	2.96	1.35
Apple	<a href="#">MacBook Pro (13-inch)</a>	14.9	0.59	304.1 x 212.4	11.97 x 8.36	100.1	3.02	1.37
ASUS	<a href="#">ZenBook UX303UA</a>	19.2	0.8	323 x 223	12.7 x 8.8	111.8	3.2	
ASUS	<a href="#">ZenBook UX303UB</a>	19.2	0.8	323 x 223	12.7 x 8.8	111.8	3.2	
ASUS	<a href="#">ZenBook UX305UA</a>		0.63		12.7 x 8.89	112.9	2.86	
ASUS	<a href="#">ZenBook UX305CA</a>		0.5		12.8 x 8.9	113.9	2.65	
ASUS	<a href="#">Zenbook UX305FA</a>		0.5		12.8 x 8.9	113.9	2.6	
ASUS	<a href="#">ZenBook UX306UA</a>		0.54		12.76 x 8.89	113.4	2.9	
ASUS	<a href="#">ZenBook UX330UA</a>		0.53		12.7 x 8.7	112.9	2.64	
Fujitsu	<a href="#">LIFEBOOK U937</a>		0.61-0.67		12.18 x 8.40	102.31	2.03	
Fujitsu	<a href="#">LIFEBOOK E736</a>		0.79-1.06		12.64 x 8.98	113.5	3.5	
HP	<a href="#">Envy 13t</a>		0.55		12.02 x 8.49	102.04	3.06	
HP	<a href="#">Envy 13 - ad055nr</a> <a href="#">Envy 13 - ad057nr</a> <a href="#">Envy 13 - ad056nr</a>		0.55		12.04 x 8.49	102.21	2.92	
HP	<a href="#">EliteBook 1030 G1</a>		0.62		12.2 x 8.27	100.9	2.55	

Brand	Model	Thickness		Dimensions		Total area (sq. inches)	Weight	
		mm	inches	mm	inches		Lbs.	Kg.
HP	<a href="#">Spectre - 13t Spectre 13-v151nr</a>		0.41		12.8 x 9.03	115.6	2.45	
HP	<a href="#">ProBook 430 G3</a>		0.78-0.83		12.83 x 9.19	117.9	3.31	
HP	<a href="#">ProBook 430 G4</a>		0.78		12.99 x 9.19	119.4	3.28	
Huawei	<a href="#">MateBook X</a>		0.49		11.26 x 8.31	93.57	2.31	
Lenovo	<a href="#">ThinkPad 13 2nd Gen</a>		0.77		12.69 x 8.77	111.29	3.17	
Lenovo	<a href="#">Ideapad 710S</a>		0.55		12.09 x 8.42	101.8	2.6	
Lenovo	<a href="#">Ideapad 710S Plus</a>		0.58		12.16 x 8.66	105.3	2.6	
LG	<a href="#">gram (13Z970-A.AAS5U1) (13Z970-U.AAW5U1)</a>		0.6		12.1 x 8.3	100.43	2.07	
Microsoft	<a href="#">Surface Laptop</a>		0.57		12.13 x 8.79	106.6	2.76	
Panasonic	<a href="#">Toughbook 31</a>		2.9		11.5 x 11.9	136.9	7.9	
Samsung	<a href="#">Notebook 9 Pro (NP940X3M-K01US) (NP940X3M-K03US)</a>		0.63		12.21 x 8.54	104.27	2.9	
Samsung	<a href="#">Notebook 9 (NP900X3L-K06US)</a>		0.53		12.35 x 8.6	106.2	2.8	

Brand	Model	Thickness		Dimensions		Total area (sq. inches)	Weight	
		mm	inches	mm	inches		Lbs.	Kg.
Samsung	<a href="#">Notebook 9 (NP900X3N-K01US)</a> <a href="#">(NP900X3N-K04US)</a>		0.55		12.18 x 8.19	99.75	1.8	
Toshiba	<a href="#">Portege X30</a>		0.6		12.4 x 8.9	110.36	2.31	
Toshiba	<a href="#">Portege A30</a>		0.84		12.4 x 9.0	111.6	3.44	
Toshiba	<a href="#">Portege Z30</a>		0.55-0.70		12.4 x 8.9	110.4	2.65	
VAIO	<a href="#">VAIO Z</a>		0.59-0.66		12.76 x 8.48	108.2	2.58	
VAIO	<a href="#">VAIO S</a>		0.52-0.71		12.68 x 8.53	108.1	2.34	

Figure 1: Dimensional information. All links and data current as of 09/06/2017.

Brand	Model	Battery info	Battery Claim
Dell	<a href="#">XPS 13</a>	60Whr integrated	22 hours
Acer	<a href="#">Swift 1 (SF113-31-P5CK)</a> <a href="#">(SF113-31-P1CS)</a>	3-cell Lithium Ion	10 hours
Acer	<a href="#">Aspire S 13 (S5-371-52JR)</a> <a href="#">(S5-371-55DC)</a> <a href="#">(S5-371-3164)</a>	3-cell Lithium Ion (Li-Ion) 4030 mAh	11 hours (listed on the overview page) 13 hours (listed on the features page)

Brand	Model	Battery info	Battery Claim
Acer	<a href="#">Aspire S 13 (S5-371T-58CC)</a> <a href="#">(S5-371T-76CY)</a>	3-cell Lithium Polymer (Li-Po) 4850 mAh	13 hours (listed on features page)
Acer	<a href="#">Aspire S 13 (S5-371T-78TA)</a>	3-cell Lithium Polymer (Li-Po) 4670 mAh	13 hours (listed on features page)
Acer	<a href="#">Swift 7 (SF713-51-M90J)</a> <a href="#">(SF713-51-M51W)</a>	4-cell Lithium Ion (Li-Ion) 2770 mAh	9 hours
Apple	<a href="#">MacBook Air (13-inch)</a>	Built-in 54 Wh Li-Po battery	12 hours wireless Web time 12 hours iTunes Movie Playback
Apple	<a href="#">MacBook Pro (13-inch)</a>	Built-in 49.2 Wh Li-Po battery	10 hours wireless web time 10 hours iTunes movie playback
ASUS	<a href="#">ZenBook UX303UA</a>	3-cells Polymer Battery 50 Whrs	7 hours
ASUS	<a href="#">ZenBook UX303UB</a>	3-cells Polymer Battery 50 Whrs	7 hours
ASUS	<a href="#">ZenBook UX305UA</a>	56 Whrs Polymer Battery	12 hours
ASUS	<a href="#">ZenBook UX305CA</a>	45 Whrs Polymer Battery	10 hours (MM2014)
ASUS	<a href="#">Zenbook UX305FA</a>	44 Whrs Polymer Battery	10 hours daily working 8 hours while playing video
ASUS	<a href="#">ZenBook UX306UA</a>	57 Whrs	7 hours
ASUS	<a href="#">ZenBook UX330UA</a>	57 Whrs Polymer Battery	Up to 12 hours while browsing the web
Fujitsu	<a href="#">LIFEBOOK U937</a>	Li-Ion battery 4-cell, 50 Wh	Up to 15 hours, 30 mins (MM2014)
Fujitsu	<a href="#">LIFEBOOK E736</a>	Li-Ion battery 6-cell, 5,800 mAh, 63 Wh Li-Ion battery 6-cell, 6,700 mAh, 72 Wh 2nd battery (optional) Li-Ion battery 6-cell, 2,600, mAh, 28 Wh	11 hours, 30 minutes (first battery) MM2014 19 hours, 30 minutes (Dual battery+SSD) MM2014

Brand	Model	Battery info	Battery Claim
HP	<a href="#">Envy 13t</a>	6-cell, 53.6 Wh Li-ion	Up to 14 hours, 15 mins with FHD panel (MM2014) Up to 10 hours with UHD panel (MM2014)
HP	<a href="#">Envy 13 - ad055nr</a> <a href="#">Envy 13 - ad057nr</a> <a href="#">Envy 13 - ad056nr</a>	6-cell, 53.6 Wh Li-ion	Up to 14 hours (mixed usage) UP to 12 hours (video playback)
HP	<a href="#">EliteBook 1030 G1</a>	4-cell, 40 WHr Li-ion	No official claim. <a href="#">LAPTOP Magazine</a> claims 13 hours.
HP	<a href="#">Spectre - 13t</a> <a href="#">Spectre 13-v151nr</a>	4-cell 38 Wh Li-ion	9 hours, 45 minutes
HP	<a href="#">ProBook 430 G3</a>	4-Cell (44 WHr) Battery 4-Cell (40 WHr) Long Life Battery 6-cell (55 WHr) Long Life Battery	No official claim. <a href="#">Notebook Check</a> claims 6 hours, 17 minutes on WiFi.
HP	<a href="#">ProBook 430 G4</a>	3-cell, 48 WHr Li-ion	No official claim. <a href="#">MSPoweruser</a> claims 16 hours.
Huawei	<a href="#">MateBook X</a>	41.4 Wh (5449mAh@7.6V)	No official claim. <a href="#">LAPTOP Magazine</a> claims 8 hours, 41 minutes via their LAPTOP Mag Battery Test.
Lenovo	<a href="#">ThinkPad 13 2nd Gen</a>	3-cell, 32 Wh,	Up to 11 hours
Lenovo	<a href="#">Ideapad 710S</a>	4-cell, 46 Wh, Li-Cylindrical	8 hours of local video playback
Lenovo	<a href="#">Ideapad 710S Plus</a>	46 Wh	Up to 7 hours
LG	<a href="#">gram</a> <a href="#">(13Z970-A.AAS5U1)</a> <a href="#">(13Z970-U.AAW5U1)</a>	60 Wh	Up to 15 hours

Brand	Model	Battery info	Battery Claim
Microsoft	<a href="#">Surface Laptop</a>	Not listed	Up to 14.5 hours
Panasonic	<a href="#">Toughbook 31</a>	60 Wh	Up to 18 hours
Samsung	<a href="#">Notebook 9 Pro (NP940X3M-K01US)</a> <a href="#">(NP940X3M-K03US)</a>	4-cell / Li-Ion 54 Wh	Up to 11.5 hours (MM2014)
Samsung	<a href="#">Notebook 9 (NP900X3L-K06US)</a>	2-cell / Li-Ion 30 Wh	10 hours (MM2007) 7.5 hours (MM2014)
Samsung	<a href="#">Notebook 9 (NP900X3N-K01US)</a> <a href="#">(NP900X3N-K04US)</a>	2-cell / Li-Ion 30 Wh	No official claim. <a href="#">Laptop Suggest</a> claims up to 10 hours of light-to-moderate use.
Toshiba	<a href="#">Portege X30</a>	4-cell, Li-Ion, 45 Wh	No official claim. <a href="#">Notebook Check</a> claims 14 hours, 58 minutes while idle, without WLAN, and with the laptop set to minimum brightness. They also claim 7 hours while using WiFi.
Toshiba	<a href="#">Portege A30</a>	4-cell, Li-Ion, 45 Wh	11 hours (MM2014)
Toshiba	<a href="#">Portege Z30</a>	4-cell, Li-Ion, 52 Wh	15.25 hours (MM2014)
VAIO	<a href="#">VAIO Z</a>	Lithium Polymer	Up to 15 hours, 30 minutes
VAIO	<a href="#">VAIO S</a>	Lithium Polymer	Up to 9 hours

Figure 2: Battery information. All links and data current as of 09/06/2017.

## ABOUT PRINCIPLED TECHNOLOGIES



Principled Technologies, Inc.  
1007 Slater Road, Suite 300  
Durham, NC, 27703  
[www.principledtechnologies.com](http://www.principledtechnologies.com)

We provide industry-leading technology assessment and fact-based marketing services. We bring to every assignment extensive experience with and expertise in all aspects of technology testing and analysis, from researching new technologies, to developing new methodologies, to testing with existing and new tools.

When the assessment is complete, we know how to present the results to a broad range of target audiences. We provide our clients with the materials they need, from market-focused data to use in their own collateral to custom sales aids, such as test reports, performance assessments, and white papers. Every document reflects the results of our trusted independent analysis.

We provide customized services that focus on our clients' individual requirements. Whether the technology involves hardware, software, Web sites, or services, we offer the experience, expertise, and tools to help our clients assess how it will fare against its competition, its performance, its market readiness, and its quality and reliability.

Our founders, Mark L. Van Name and Bill Catchings, have worked together in technology assessment for over 20 years. As journalists, they published over a thousand articles on a wide array of technology subjects. They created and led the Ziff-Davis Benchmark Operation, which developed such industry-standard benchmarks as Ziff Davis Media's Winstone and WebBench. They founded and led eTesting Labs, and after the acquisition of that company by Lionbridge Technologies were the head and CTO of VeriTest.

Principled Technologies is a registered trademark of Principled Technologies, Inc.  
All other product names are the trademarks of their respective owners.

---

#### Disclaimer of Warranties; Limitation of Liability:

PRINCIPLED TECHNOLOGIES, INC. HAS MADE REASONABLE EFFORTS TO ENSURE THE ACCURACY AND VALIDITY OF ITS TESTING, HOWEVER, PRINCIPLED TECHNOLOGIES, INC. SPECIFICALLY DISCLAIMS ANY WARRANTY, EXPRESSED OR IMPLIED, RELATING TO THE TEST RESULTS AND ANALYSIS, THEIR ACCURACY, COMPLETENESS OR QUALITY, INCLUDING ANY IMPLIED WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE. ALL PERSONS OR ENTITIES RELYING ON THE RESULTS OF ANY TESTING DO SO AT THEIR OWN RISK, AND AGREE THAT PRINCIPLED TECHNOLOGIES, INC., ITS EMPLOYEES AND ITS SUBCONTRACTORS SHALL HAVE NO LIABILITY WHATSOEVER FROM ANY CLAIM OF LOSS OR DAMAGE ON ACCOUNT OF ANY ALLEGED ERROR OR DEFECT IN ANY TESTING PROCEDURE OR RESULT.

IN NO EVENT SHALL PRINCIPLED TECHNOLOGIES, INC. BE LIABLE FOR INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH ITS TESTING, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT SHALL PRINCIPLED TECHNOLOGIES, INC.'S LIABILITY, INCLUDING FOR DIRECT DAMAGES, EXCEED THE AMOUNTS PAID IN CONNECTION WITH PRINCIPLED TECHNOLOGIES, INC.'S TESTING. CUSTOMER'S SOLE AND EXCLUSIVE REMEDIES ARE AS SET FORTH HEREIN.

---