

COMPARISON OF 13-INCH CLASS NOTEBOOKS

For comparison to the Dell™ XPS™ 13 notebook, we identified 13-inch-class notebooks that are currently shipping from the following vendors: Acer®, Apple®, ASUS®, Fujitsu®, HP, Lenovo®, Samsung®, and Toshiba®. Figures 1 through 3 compare the systems, which have a 13.3 inch screen size unless otherwise noted, using publically available data at each vendor’s respective website. We gathered this data at the links provided on 09/09/2015 (click on model names to follow them) and report only what each vendor disclosed on their sites. Dell provided us with information about the Dell XPS 13 9343 notebook.

According to vendor-provided data, compared to notebooks we gathered information about in Figures 1 through 3, the Dell XPS 13 9343:

- is the smallest 13-inch notebook¹
- is 17.5 percent smaller than the MacBook Air® (13-inch)

Brand	Model	Thinness		Dimensions		Total area (sq. inches)	Weight	
		mm	inches	mm	inches		Lbs.	Kg.
Dell	XPS 13 9343	9–15	0.33–0.6	304 × 200	11.98 × 7.88	94.4024	2.60	1.18
Acer	Aspire® S7 (S7-392-7451)		0.51		12.7 × 8.8	111.76	2.87	
Acer	Aspire R 13 (R7-371T-57SN)		0.7		13.5 × 9.1	122.85	3.31	
Acer	Aspire V (V3-371-596F)		0.77		12.9 × 9	116.1	3.31	
Apple	MacBook Air® (13-inch)	3–17	0.11–0.68	325 × 227	12.8 × 8.94	114.432	2.96	1.35
Apple	MacBook Pro® (13-inch with Retina Display)	18	0.71	314 × 219	12.35 × 8.62	106.457	3.48	1.58
ASUS	Zenbook UX301LA	15.5		325 × 226				1.4
ASUS	Zenbook UX305FA		0.5		12.8 × 8.9	113.92	2.6	
ASUS	Zenbook UX303LN	19.2		323 × 223		111.76		1.45
ASUS	Zenbook UX303LA		0.7-0.8		12.7 × 8.8	111.76	3.2	

¹ Used in this report, the smallest refers to the total surface area of the notebook.



Brand	Model	Thickness		Dimensions		Total area (sq. inches)	Weight	
		mm	inches	mm	inches		Lbs.	Kg.
Fujitsu	LIFEBOOK® E734	20-27	0.78–1.06	321 x 228	12.64 x 8.98	113.5072	<ul style="list-style-type: none"> From 3.5lbs (including weight saver; weight may vary depending on actual configuration) 	From 1.6
Fujitsu	LIFEBOOK T935	17.1-19.3	0.67-0.76	321 x 235	12.64 x 9.25	116.92	<ul style="list-style-type: none"> From 3.5lbs (weight may vary depending on actual configuration, including battery pack) 	From 1.6
Fujitsu	LIFEBOOK T904	17.1-19.3	0.67-0.76	321 x 235	12.64 x 9.25	116.92	<ul style="list-style-type: none"> From 3.5lbs. Weight may vary depending on actual configuration, including battery pack) 	From 1.6
HP	ProBook 430 G2 Notebook PC	<ul style="list-style-type: none"> 20-21 (front to rear, non-touch) 21.3-22.5 (front 	<ul style="list-style-type: none"> 0.79-0.83 (front to rear, non-touch) 0.84-0.89 (front 	<ul style="list-style-type: none"> 326 x 233.5 (front to rear, non-touch) 326 x 234 	<ul style="list-style-type: none"> 12.83 x 9.19 (front to rear, non-touch) 12.83 x 9.21 (front 	117.9077 (non-touch)	3.31 (Lowest weight configuration. Weight will vary by configuration)	1.5 (Lowest weight configuration. Weight will vary by configuration)

Brand	Model	Thickness		Dimensions		Total area (sq. inches)	Weight	
		mm	inches	mm	inches		Lbs.	Kg.
		to rear, touch)	to rear, touch)	(front to rear, touch)	to rear, touch)			
HP	Pavilion x360 - 13t Touch Laptop		0.89		12.89 x 8.8	113.432	3.77	
HP	Stream - 13-c010nr Laptop		0.81		13.12 x 9.02	118.3424	3.42	
HP	ENVY x2 – 13-j002dx		<ul style="list-style-type: none"> • 0.54 (tablet) • 0.76 (tablet and base) 		<ul style="list-style-type: none"> • 13.99 x 8.48" (tablet) • 14.07 x 8.57 (tablet and base) 	<ul style="list-style-type: none"> • 118.6352 (tablet) • 120.5799 (tablet and base) 	<ul style="list-style-type: none"> • 2.81 (tablet) • 4.05 (tablet and base) 	
Lenovo	LaVie Z		0.67		12.56 x 8.35	104.876	Starting at 1.87 lbs.	
Lenovo	U31-70		0.76		12.72 x 9.06	115.2432	3.31	
Lenovo	Yoga™ 3 Pro		0.5		13 x 9	117	2.62	
Samsung	Series 9 Premium Ultrabook NP900X3D-A03US		0.51		12.3 x 8.6	105.78	2.49	
Samsung	ATIV Book 9 Plus NP940X3G-K04US		0.54		12.58 x 8.78	110.4524	3.06	
Samsung	ATIV Book 9 Plus NP940X3K-K02US		0.54		12.58 x 8.78	110.4524	3.06	
Samsung	ATIV Book 9 NP900X3G-S01US		0.52		12.35 x 8.6	106.21	2.49	
Samsung	ATIV Book 9 NP900X3K-K01US		0.53		12.35 x 8.60	106.21	2.36	
Toshiba	Portege® R30-ASMBN22 Laptop		0.71–1.04		12.44 x 8.94	111.2136	<ul style="list-style-type: none"> • 3.37 	

Brand	Model	Thickness		Dimensions		Total area (sq. inches)	Weight	
		mm	inches	mm	inches		Lbs.	Kg.
							<ul style="list-style-type: none"> No weight given for 9-cell 	
Toshiba	KIRAbok™ 13 i7S1X Touch Ultrabook		0.70		12.44 × 8.15	101.386	<ul style="list-style-type: none"> 2.91 Described as starting point depending on configuration, but no other battery options listed 	
Toshiba	Portege Z30-BST3NX3 Ultrabook	13.9-17.9	0.55-0.70	316 x 227	12.44 x 8.94	111.2136	3.0 (starting point depending on configuration)	1.35

Figure 1: Dimension information we gathered for the notebooks. All links and data current as of 09/09/15.

Figure 2 details the available screen information for the systems we researched. According to vendor-provided data, the Dell XPS 13 9343 has a display with up to 1.6 times as many pixels as the MacBook Air (13-inch).

Brand	Model	Screen resolution		Pixels
		Horizontal	Vertical	
Dell	XPS 13 9343	1,920	1,080	2,073,600
Acer	Aspire S7 (S7-392-7451)	1,920	1,080	2,073,600
Acer	Aspire R 13 (R7-371T-57SN)	1,920	1,080	2,073,600
Acer	Aspire V (V3-371-596F)	1,366	768	1,049,088
Apple	MacBook Air (13-inch)	1,440	900	1,296,000
Apple	MacBook Pro (13-inch with Retina Display)	2,560	1,600	4,096,000
ASUS	Zenbook UX301LA	2,560	1,440	3,686,400
ASUS	Zenbook UX305FA	3,200	1,800	5,760,000

Brand	Model	Screen resolution		Pixels
		Horizontal	Vertical	
ASUS	Zenbook UX303LN	3,200	1,800	5,760,000
ASUS	Zenbook UX303LA	1,920	1,080	2,073,600
Fujitsu	LIFEBOOK E734	1,366	768	1,049,088
Fujitsu	LIFEBOOK T935	2,560	1,440	3,686,400
Fujitsu	LIFEBOOK T904	2,560	1,440	3,686,400
HP	ProBook 430 G2 Notebook PC	1,366	768	1,049,088
HP	Pavilion x360 - 13t Touch Laptop	1,366	768	1,049,088
HP	Stream - 13-c010nr Laptop	1,366	768	1,049,088
HP	ENVY x2 – 13-j002dx	1,920	1,080	2,073,600
Lenovo	LaVie Z	2,560	1,440	3,686,400
Lenovo	U31-70	1,920	1,080	2,073,600
Lenovo	Yoga 3 Pro	3,200	1,800	5,760,000
Samsung	Series 9 Premium Ultrabook NP900X3D-A03US	1,600	900	1,440,000
Samsung	ATIV Book 9 Plus NP940X3G-K04US	3,200	1,800	5,760,000
Samsung	ATIV Book 9 Plus NP940X3K-K02US	3,200	1,800	5,760,000
Samsung	ATIV Book 9 NP900X3G-S01US	1,920	1,080	2,073,600
Samsung	ATIV Book 9 NP900X3K-K01US	3,200	1,800	5,760,000
Toshiba	Portege R30-ASMBN22 Laptop	1,366	768	1,049,088
Toshiba	KIRAbok 13 i7S1X Touch Ultrabook	2,560	1,440	3,686,400

Brand	Model	Screen resolution		Pixels
		Horizontal	Vertical	
Toshiba	Portege Z30-BST3NX3 Ultrabook	1,366	768	1,049,088

Figure 2: Screen information we gathered about the notebooks. All links and data current as of 09/09/15.

Figure 3 details the available battery information for the systems we researched.

Brand	Model	Battery info
Dell	XPS 13 9343	<ul style="list-style-type: none"> • Up to 15 hours 22 minutes using BrowsingBench. Tested system equipped with 4GB memory, Intel® HD 5500 graphics, Intel Core™ i5 processor, 128GB SSD, 52 Whr battery, and FHD display. System brightness set to 150-nits (40%) and wireless on. • Up to 14 hours 46 minutes using MobileMark 2014. Tested system equipped with 4GB memory, Intel HD 5500 graphics, Intel Core i5 processor, 128GB SSD, 52 Whr battery, and FHD display. • Up to 13 hours 7 minutes using MobileMark 2012. Tested system equipped with 4GB memory, Intel HD 5500 graphics, Intel Core i5 processor, 128GB SSD, 52 Whr battery, and FHD display. • Up to 12 hours 47 minutes using Microsoft’s Local Video Playback Energy Efficiency battery run down test. Tested system equipped with 4GB memory, Intel HD 5500 graphics, Intel Core i5 processor, 128GB SSD, 52 Whr battery, and FHD display. System brightness set to 200-nits (50%) and wireless on. • Up to 11 hours 7 minutes using BrowsingBench. Tested system equipped with 8GB memory, Intel HD 5500 graphics, Intel Core i5 processor, 256GB SSD, 52 Whr battery, and QHD+ touch display. System brightness set to 150-nits (40%) and wireless on. • Up to 11 hours 20 minutes using MobileMark 2014. Tested system equipped with 8GB memory, Intel HD 5500 graphics, Intel Core i5 processor, 256GB SSD, 52 Whr battery, and QHD+ touch display. • Up to 7 hours 37 minutes using MobileMark 2012. Tested system equipped with 8GB memory, Intel HD 5500 graphics, Intel Core i5 processor, 256GB SSD, 52 Whr battery, and QHD+ touch display. • Up to 8 hours 10 minutes using Microsoft’s Local Video Playback Energy Efficiency battery run down test. Tested system equipped with 8GB memory, Intel HD 5500 graphics, Intel Core i5 processor, 256GB SSD, 52 Whr battery, and QHD+ touch display. System brightness set to 200-nits (50%) and wireless on. • Up to 11 hours 9 minutes using BrowsingBench. Tested system equipped with 8GB memory, Intel HD 5500 graphics, Intel Core i7 processor, 256GB SSD, 52 Whr battery, and QHD+ touch display. System brightness set to 150-nits (40%) and wireless on.

Brand	Model	Battery info
		<ul style="list-style-type: none"> • Up to 10 hours 12 minutes using MobileMark 2014. Intel HD 5500 graphics, Intel Core i7 processor, 256GB SSD, 52 Whr battery, and QHD+ touch display. • Up to 9 hours 10 minutes using MobileMark 2012. Intel HD 5500 graphics, Intel Core i7 processor, 256GB SSD, 52 Whr battery, and QHD+ touch display. • Up to 7 hours 53 minutes using Microsoft's Local Video Playback Energy Efficiency battery run down test. Intel HD 5500 graphics, Intel Core i7 processor, 256GB SSD, 52 Whr battery, and QHD+ touch display. System brightness set to 200-nits (50%) and wireless on. • Up to 22 hours total battery life when using the Dell Power Companion using BrowsingBench. Tested system equipped with 4GB memory, Intel HD 5500 graphics, Intel Core i5 processor, 128GB SSD, 52 Whr battery, and FHD display. System brightness set to 150-nits (40%) and wireless on.
Acer	Aspire S7 (S7-392-7451)	<ul style="list-style-type: none"> • 10 hours • 4-cell Li-Polymer • mAh: 6,280 • Maximum Power Supply Wattage: 45 W
Acer	Aspire R 13 (R7-371T-57SN)	<ul style="list-style-type: none"> • 4-cell Lithium Ion (Li-Ion) • 3220 mAh, 8 Hour
Acer	Aspire V (V3-371-596F)	<ul style="list-style-type: none"> • 4-cell Lithium Ion (Li-Ion) • 3220 mAh, 6.5 Hour
Apple	MacBook Air (13-inch)	<ul style="list-style-type: none"> • Up to 12 hours wireless Web time • Up to 12 hours iTunes Movie Playback • Up to 30 days Standby time • Built-in 54Wh Li-Po battery
Apple	MacBook Pro (13-inch with Retina Display)	<ul style="list-style-type: none"> • Up to 10 hours wireless Web time • Up to 12 hours iTunes Movie Playback • Up to 30 days Standby time • Built-in 74.9Wh Li-Po battery
ASUS	Zenbook UX301LA	<ul style="list-style-type: none"> • 6-cell / Polymer • 50.6Wh
ASUS	Zenbook UX305FA	<ul style="list-style-type: none"> • 44 Whrs Polymer Battery • 10 hours daily working • 8 hours video playing
ASUS	Zenbook UX303LN	<ul style="list-style-type: none"> • 3Cells 50 Whrs Polymer Battery

Brand	Model	Battery info
ASUS	Zenbook UX303LA	<ul style="list-style-type: none"> • 3Cells Polymer Battery
Fujitsu	LIFEBOOK E734	<ul style="list-style-type: none"> • Up to 25h
Fujitsu	LIFEBOOK T935	<ul style="list-style-type: none"> • Up to 11h
Fujitsu	LIFEBOOK T904	<ul style="list-style-type: none"> • Up to 8.5h
HP	ProBook 430 G2 Notebook PC	<ul style="list-style-type: none"> • 4-cell, 44 WHr Li-ion • 40 WHr Long Life Li-ion
HP	Pavilion x360 - 13t Touch Laptop	<ul style="list-style-type: none"> • 3-cell • 48Whr 4.15Ah Lithium-ion polymer • Up to 10 hours and 45 minutes
HP	Stream - 13-c010nr Laptop	<ul style="list-style-type: none"> • 3-cell • 36 WHr Lithium-ion • Up to 7 hours and 45 minutes
HP	ENVY x2 – 13-j002dx	<ul style="list-style-type: none"> • 2-cell 33WHr Lithium-ion Battery
Lenovo	LaVie Z	<ul style="list-style-type: none"> • Up to 7 hours MM12 • Up to 9 hours Video Playback
Lenovo	U31-70	<ul style="list-style-type: none"> • Up to 4 hours with 35 WHr battery
Lenovo	Yoga 3 Pro	<ul style="list-style-type: none"> • Up to 7.2 hours • 4-cell 44.8 WHr Li-Polymer
Samsung	Series 9 Premium Ultrabook NP900X3D-A03US	<ul style="list-style-type: none"> • Up to 9 hours • 4-cell / Li-Po • 44 WHr
Samsung	ATIV Book 9 Plus NP940X3G-K04US	<ul style="list-style-type: none"> • Up to 7 hours (MobileMark 2012) • 4-cell / Li-Po • mAh: 7300 • 55.5Wh
Samsung	ATIV Book 9 Plus NP940X3K-K02US	<ul style="list-style-type: none"> • Up to 12.5 hours (MobileMark 2012) • 4-cell / Li-Po • 40 W • mAh: 7300 • 55Wh

Brand	Model	Battery info
Samsung	ATIV Book 9 NP900X3G-S01US	<ul style="list-style-type: none"> • Up to 10 hours • 4 Cell / Li-Po • mAh: 5,880 • 44Wh
Samsung	ATIV Book 9 NP900X3K-K01US	<ul style="list-style-type: none"> • Up to 10 hours (Mobile Mark 2007) • 4 Cell / Li-Po • mAh: 5,880 • 44Wh
Toshiba	Portege R30-ASMBN22 Laptop	<ul style="list-style-type: none"> • 6-cell / Li-Ion • 66Wh • Up to 8 hours, 30 minutes (MobileMark Productivity 2012, Core i5-4200M, Windows 8.1, 6-cell battery) • Up to 9 hours, 10 minutes (MobileMark Productivity 2012, Core i7-4700MQ, Windows 8.1, 6-cell battery) • (9-cell/93Wh Li-Ion battery pack optional)
Toshiba	KIRAbok 13 i7S1X Touch Ultrabook	<ul style="list-style-type: none"> • 4-cell / Li-Po battery pack • 52Wh
Toshiba	Portege Z30-BST3NX3 Ultrabook	<ul style="list-style-type: none"> • Up to 15 hours and 5 minutes • 4 cell/52 Wh Lithium Ion battery pack (not user replaceable)

Figure 3: Battery information we gathered about the notebooks. All links and data current as of 09/09/15.

ABOUT PRINCIPLED TECHNOLOGIES



Principled Technologies, Inc.
1007 Slater Road, Suite 300
Durham, NC, 27703
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.
