

COMPARISON OF 15-INCH CLASS NOTEBOOKS

We compared a Dell™ XPS™ 15 (9560) notebook with other 15-inch-class notebooks. These include devices from Acer®, Apple®, ASUS®, HP, Lenovo®, and Toshiba®. Figures 1 through 4 compare the systems using publically available data at each vendor’s respective website. We gathered this data on 10/28/2016 at the links provided. Dell provided us with information about the Dell XPS 15 notebook.

According to vendor-provided data for these notebooks, the new Dell XPS 15:

- has the longest battery life of any 15-inch notebook¹
- is the smallest 15.6-inch notebook
- is the lightest performance-class 15-inch notebook²

Brand	Model	Battery info	Battery life claims
Dell	XPS 15	97WHr Lithium ion	19.5 hours
Acer	Aspire E (E5-531P-P3Z4)	6 cell Lithium Ion 4700 mAh	No official claim. SuperBiiz claims 7 hours.
Acer	Aspire E (E5-531-C01E)	6 cell Lithium Ion 2500 mAh	No official claim. Google claims 7 hours.
Acer	Aspire E (E5-532-P4H0) (E5-574-53QS) (E5-574-58JM) (E5-573-35JA) (E5-573-50PS) (E5-573-P0DP) (E5-573T-57FZ) (E5-532-P3D4) (E5-522-82C2) (E5-573-378G) (E5-552-T75L)	4 cell Lithium Ion 2520 mAh	No official claim. No 3rd party claim found.

¹ Fujitsu claims an 18-hour battery life for one of their notebooks with a single battery, but uses MobileMark 2007 as a battery life test. Because the benchmark is no longer officially supported, we have excluded the Fujitsu system from the battery life comparison.

² Used in this report, the term “performance-class” refers to having similar processors and similar discrete graphics cards.



Brand	Model	Battery info	Battery life claims
Acer	Aspire E (E5-573G-79HX)	4 cell Lithium Ion 2520 mAh	No official claim. Amazon claims 6 hours.
Acer	Aspire E (E5-575G-53VG) (E5-575G-76YK)	6 cell Lithium Ion 2800 mAh	No official claim. TeraDataRiver claims 8 hours (Laptop Mag Battery Test).
Acer	Aspire E (E5-575G-52RJ)	4-cell Lithium Ion 2800 mAh	No official claim. No 3rd party claim found.
Acer	Aspire E (E5-575-79EP) (E5-575-51GG) (E5-553G-F55F) (E5-553-T2XN) (E5-575-521W)	4-cell Lithium Ion 2800 mAh	No official claim. No 3rd party claim found.
Acer	Aspire ES (ES1-512-25TP)	3 cell Lithium Ion 3220 mAh	7 hours
Acer	Aspire E (E5-575-54E8) (E5-575-54SM) (E5-553-14YR) (E5-553-13AB) (E5-523-93FV) (E5-523-95RZ) (E5-553-102Z) (E5-553-11PT) (E5-523-97JY)	4-cell Lithium Ion 2800 mAh	No official claim. No 3rd party claim found.
Acer	Aspire E (E5-774G-570J)		
Acer	Aspire ES (ES1-521-852R)	3 cell Lithium Ion 3490 mAh	5.50 hours
Acer	Aspire ES (ES1-531-P0JJ)	3 cell Lithium Ion 3490 mAh	6 hours

Brand	Model	Battery info	Battery life claims
Acer	Aspire ES (ES1-571-C7N9) (ES1-571-P1MG) (ES1-571-33BQ) (ES1-571-C4E2) (ES1-571-30XX) (ES1-571-31XM)	3 cell Lithium Ion 3220 mAh	5 hours
Acer	Aspire ES (ES1-572-357C) (ES1-572-59E8)	4 cell Lithium Ion 3220 mAh	6.5 hours
Acer	Aspire F 15 (F5-571-50PF) (F5-571T-58AL) (F5-571T-783Z)	4 cell Lithium Ion 2520 mAh	5 hours
Acer	Aspire F 15 (F5-573T-50KY) (F5-573-32ZS)	6-cell Lithium Ion 2800 mAh	No official claim. No 3rd party claim found.
Acer	Aspire F 15 (F5-573-58VX) (F5-573-7630) (F5-573-58SW)	6-cell Lithium Ion 2800 mAh	Up to 12 hours
Acer	Aspire F 15 (F5-573-505W)	4 cell Lithium Ion 2800 mAh	No official claim. No 3rd party claim found.
Acer	Aspire F 15 (F5-573-50JZ) (F5-573-57R7) (F5-573-55LV)	4 cell Lithium Ion 2800 mAh	No official claim. No 3rd party claim found.
Acer	Aspire F 15 (F5-573G-7791) (F5-573G-56CG) (F5-573G-78R2) (F5-573G-74MV)	4 cell Lithium Ion 2800 mAh	No official claim. No 3rd party claim found.

Brand	Model	Battery info	Battery life claims
Acer	Aspire F 15 (F5-573G-510L) (F5-573G-77BJ)	6 cell Lithium Ion 2800 mAh	Up to 12 hours
Acer	TravelMate P6 (TMP658-MG-749P)	3 cell Lithium Ion 4850 mAh	No official claim. Icecat claims 8 hours.
Acer	TravelMate P6 (TMP658-M-70S3)	3 cell Lithium Ion 4850 mAh	No official claim. Amazon claims 10 hours.
Acer	TravelMate P6 (TMP658-M-50NJ) (TMP658-M-59SY)	3 cell Lithium Ion 4850 mAh	No official claim. Icecat claims 8 hours.
Acer	Aspire V (V3-572-75D2)	6 cell Lithium Ion 5000 mAh	No official claim. Buydig.com claims 7 hours.
Acer	Aspire V (V3-572PG-546C)	6 cell Lithium Ion 4700 mAh	No official claim No 3rd party claims
Acer	Aspire V (V3-572P-326T)	6 cell Lithium Ion 4700 mAh	No official claim. Laptop Reviews claims up to 7 hours
Acer	Aspire V (V3-575TG-700T)	4 cell Lithium Ion 2520 mAh	No official claim No 3rd party claims
Acer	Aspire V (V3-575T-71U5)	4 cell Lithium Ion 2520 mAh	6 hours
Acer	Aspire E (E5-575G-5341) (E5-575G-58UJ)	6 cell Lithium Ion 2800 mAh	No official claim No 3rd party claims
Acer	Aspire E (E5-553G-1986)	6 cell Lithium Ion 2800 mAh	No official claim No 3rd party claims
Acer	Aspire V 15 (V5-591G-55PV) (V5-591G-75YR) (V5-591G-74MJ)	6 cell Lithium Ion 5040 mAh	No official claim No 3rd party claims
Acer	Aspire V Nitro (VN7-571G-76RC)	3-cell 4605 mAh Lithium Ion	9 hours
Acer	Aspire V Nitro (VN7-571G-719D)	3 cell 4450 mAh Lithium Ion	No official claim No 3rd party claims

Brand	Model	Battery info	Battery life claims
Acer	Aspire V Nitro (VN7-572TG-775T)	3 cell	No official claim No 3rd party claims
Acer	Aspire V Nitro (VN7-592G-77LB) (VN7-592G-70EN) (VN7-592G-58C3) (VN7-592G-7015) (VN7-592G-72VQ)	3-cell 4605 mAh Lithium Ion	6 hours
Acer	Aspire R7 (R7-572-5893)	4-cell 3560 mAh Lithium Polymer	5.5 hours
Acer	Predator 15	8-cell 6000 mAh Lithium Ion	6 hours
Apple	MacBook Pro with Retina Display (2015)	99.5 Whr Lithium-polymer battery	9 hours wireless web; 9 hours iTunes movie playback
Apple	MacBook Pro - Silver	76.0 Whr Lithium-polymer battery	10 hours wireless web 10 hours iTunes movie playback
Apple	MacBook Pro	76.0 Whr Lithium-polymer battery	10 hours wireless web 10 hours iTunes movie playback
ASUS	ROG GL552VW	4 cell 3200 mAh 48 Whrs	No official claim www.google.com = 5 hours
ASUS	ROG GL502VT	4 cell	6 hours web browsing
ASUS	ROG STRIX GL502VY	4 cell	No official claim. LAPTOP Magazine claims 5 hours 56 minutes.
ASUS	ROG GL502VS	4 cell (62 WHr)	No official claim. Notebook Check claims 3 hours 16 min over wireless internet.
ASUS	ROG GL502VM	4 cell	No official claim. Newegg claims up to 5 hours.
ASUS	F555UA	2 cell 37 Whrs Lithium-Polymer	No official claim. 9-to-5 Gadgets claims 4 hours.
ASUS	X555YA	2 cell 37 Whrs Lithium-Polymer	No official claim. The Source claims 5 hours.

Brand	Model	Battery info	Battery life claims
ASUS	ZenBook Pro UX501UW	48 Whrs	No official claim. Ultrabook Review claims 5 hours 25 min over wireless internet.
ASUS	ZenBook Pro UX501VW	96 Whrs	6 hours Office Productivity 6.2 hours Web Browsing 6 hours Video Playback
Fujitsu	Lifebook E756	Li-Ion battery 6-cell, 5,600/5,800 mAh, 63 Wh Li-Ion battery 6-cell, 6,400/6,700 mAh, 72 Wh Li-Ion battery 6-cell, 7,100 mAh, 77 Wh	8 hours (first battery) MM2014 17 hours 30 mins (first battery + 2nd battery) MM2014
Fujitsu	Lifebook E556	Li-Ion battery 6-cell, 5,600/5,800 mAh, 63 Wh Li-Ion battery 6-cell, 6,400/6,700 mAh, 72 Wh Li-Ion battery 6-cell, 4,500 mAh, 49 Wh	12 hours MM2014
HP	250 G5 (W0S98UT#ABA)	4-cell (41 Wh) Li-ion	7 hours
HP	Laptop 15t	4 cell (41 WHr) Lithium-ion Battery	Up to 6 hours
HP	EliteBook 755 G3	3-cell (46) WHr Li-ion polymer	8 hours
HP	EliteBook 850 G3	3-cell (46 WHr) Long Life	13 hours 15 mins
HP	Envy 15t	3-cell (52 WHr) Lithium-Ion Battery	7 hours
HP	Envy 15-as-152nr	3-cell (52 WHr) Lithium-Ion Battery	7 hours 30 mins
HP	OMEN 15t	3-cell (61.5 WHr) Lithium-Ion Battery	Up to 8 hours 30 mins
HP	Pavilion 15t	3-cell (61.5 WHr) Lithium-Ion Battery	Up to 9 hours
HP	Pavilion 15-bc051nr	3-cell (61.5 WHr) Lithium-Ion Battery	Up to 9 hours 30 mins

Brand	Model	Battery info	Battery life claims
HP	ProBook 450 G3	4-Cell (44 WHr) Lithium-Ion Battery 6-cell (55 WHr) Battery Long Life	No official claim. Notebook Check claims 5 hours, 37 minutes during video playback and 5 hours, 9 minutes over wireless internet.
HP	ProBook 450 G4	3-cell (48 WHr) Long Life Li-ion	Up to 14 hours and 15 mins
HP	ProBook 455 G3	4-Cell (44 WHr) Lithium-Ion Battery 6-cell (55 WHr) Battery Long Life	No official claim No 3rd party claims
HP	ProBook 650 G2	3-cell (48 WHr) Long Life Li-ion	No official claim. Notebook Check claims 6 hours, 48 minutes over wireless internet.
HP	ProBook 655 G2	3 Cell (48 WHr)	No official claim. Google claims 8 hours.
HP	Zbook 15 G3	9-cell (90 WHr) Long Life	No official claim. Notebook Check claims 6 hours, 26 minutes over wireless internet.
HP	Zbook 15u G3	3-cell 46 WHr Li-ion prismatic	No official claim. Notebook Check claims 5 hours, 12 minutes over wireless internet.
HP	Zbook Studio G3	4-cell 64 WHr Li-ion prismatic	No official claim No 3rd party claims
Lenovo	Ideapad 110	24WHr	3 Hours
Lenovo	Ideapad 310	2 Cell 30 Watt Hour Li-Cylindrical	5 Hours
Lenovo	Ideapad 510	2 Cell 39 Watt Hour Li-Polymer	5 hours
Lenovo	Ideapad 700 (15")	3 Cell (45 WHr)	Up to 4 hours
Lenovo	Ideapad Y700 15	4 Cell (60 WHr)	No official claim. LAPTOP Magazine claims 4 hours, 16 minutes.
Lenovo	Ideapad Y700 Touch	4 Cell 60 WHr	No official claim. PC Magazine claims 7 hours 55 min.
Lenovo	ThinkPad P50	6 cell 90 Watt Hour Li-Polymer	No official claim. Notebook Check claims 14 hours (Battery Eater Reader's Test).

Brand	Model	Battery info	Battery life claims
Lenovo	ThinkPad P50s	ThinkPad Battery 3 cell Li-Polymer (44Whr) Front 3 Cell Li-Ion Battery 23.2WH Rear	10 hours
Lenovo	ThinkPad E570	Li-Ion 4-cell (41WHr)	No official claim. Connection claims 7 hours.
Lenovo	ThinkPad T560	Integrated Li-Polymer 3-cell (44Wh) Optional: 3-cell (23Wh) or Li-Ion 6-cell (48Wh or 72Wh)	13.2 hours 24 Hours (44 WHr + 72 WHr)
Lenovo	ThinkPad L560	Li-Ion 6-cell (48Wh)	9.5 hours
Samsung	Notebook 5 NP500R5L-M02US NP500R5L-M03US	43Wh	7 hours (MM2014)
Samsung	Notebook 9 NP900X5L-K02US	4 cell 39Whr	12 hours (MM2007)
Samsung	Notebook 9 Pro NP940Z5L-X01US	4 cell 57Whr	6.5 hours (MM2014)
Toshiba	Tecra C50 C1500 C1503 01301H	Lithium Ion (45Wh, 4-cell)—*Not user replaceable	Up to 9.08 hours
Toshiba	Tecra A50 C1540 C1541 C1543 03P01G 02J01E	Lithium Ion (45Wh, 4-cell)—*Not user replaceable	Up to 9.08 hours
Toshiba	Tecra Z50 C1550 034007 034014	4-cell 45 Wh	8.33 (MM2014)

Figure 1: Battery information. All links and data current as of 10/28/2016.

Brand	Model	Thickness		Dimensions		total area (sq. in.)	Weight	
		mm	inches	mm	inches		lbs	kg
Dell	XPS 15	12.0 - 17.0	0.46 - 0.66	357 x 235	14.06 x 9.25	130.055	4.09	1.85
Acer	Aspire E (E5-531P-P3Z4)		0.97-1.29		15 x 10.1	151.5	5.95	
Acer	Aspire E (E5-531-C01E)		0.96-1.19		15 x 10.1	151.5	5.51	
Acer	Aspire E (E5-532-P4H0) (E5-574-53QS) (E5-574-58JM) (E5-573-35JA) (E5-573-50PS) (E5-573-P0DP) (E5-573T-57FZ) (E5-532-P3D4) (E5-522-82C2) (E5-573-378G) (E5-552-T75L)		0.98-1.15		15 x 10.1	151.5	5.29	
Acer	Aspire E (E5-573G-79HX)		0.98-1.15		15 x 10.1	151.5	5.29	
Acer	Aspire E (E5-575G-53VG) (E5-575G-76YK)		0.94-1.19		15 x 10.2	153	5.27	
Acer	Aspire E (E5-575G-52RJ)		0.94-1.19		15 x 10.2	153	4.92	
Acer	Aspire E (E5-575-79EP) (E5-575-51GG) (E5-553G-F55F) (E5-553-T2XN) (E5-575-521W)		0.94-1.19		15 x 10.2	153	4.92	

Brand	Model	Thickness		Dimensions		total area (sq. in.)	Weight	
		mm	inches	mm	inches		lbs	kg
Acer	Aspire ES (ES1-512-25TP)		1.0-1.03		15 x 10.2	153	5.29	
Acer	Aspire E (E5-575-54E8) (E5-575-54SM) (E5-553-14YR) (E5-553-13AB) (E5-523-93FV) (E5-523-95RZ) (E5-553-102Z) (E5-553-11PT) (E5-523-97JY)		0.94-1.19		15 x 10.2	153	4.92	
Acer	Aspire E (E5-774G-570J)							
Acer	Aspire ES (ES1-521-852R)		1.07		15 x 10.2	153	5.29	
Acer	Aspire ES (ES1-531-P0JJ)		1.03		15 x 10.2	153	5.29	
Acer	Aspire ES (ES1-571-C7N9) (ES1-571-P1MG) (ES1-571-33BQ) (ES1-571-C4E2) (ES1-571-30XX) (ES1-571-31XM)		1.03-1.07		15 x 10.2	153	5.29	
Acer	Aspire ES (ES1-572-357C) (ES1-572-59E8)		0.97		15 x 10.2	153	5.29	
Acer	Aspire F 15 (F5-571-50PF) (F5-571T-58AL) (F5-571T-783Z)		0.98-1.15		15 x 10.1	151.5	5.29	

Brand	Model	Thickness		Dimensions		total area (sq. in.)	Weight	
		mm	inches	mm	inches		lbs	kg
Acer	Aspire F 15 (F5-573T-50KY) (F5-573-32ZS)		0.91-1.12		15 x 10.2	153	5.29	
Acer	Aspire F 15 (F5-573-58VX) (F5-573-7630) (F5-573-58SW)		0.91-1.12		15 x 10.2	153	5.29	
Acer	Aspire F 15 (F5-573-505W)		0.91-1.12		15 x 10.2	153	5.07	
Acer	Aspire F 15 (F5-573-50JZ) (F5-573-57R7) (F5-573-55LV)		0.91-1.12		15 x 10.2	153	5.07	
Acer	Aspire F 15 (F5-573G-7791) (F5-573G-56CG) (F5-573G-78R2) (F5-573G-74MV)		0.91-1.12		15 x 10.2	153	5.07	
Acer	Aspire F 15 (F5-573G-510L) (F5-573G-77BJ)		0.91-1.12		15 x 10.2	153	5.29	
Acer	TravelMate P6 (TMP658-MG-749P)		0.88		15 x 10	150	5.07	
Acer	TravelMate P6 (TMP658-M-70S3)		0.88		15 x 10	150	5.07	
Acer	TravelMate P6 (TMP658-M-50NJ) (TMP658-M-59SY)		0.88		15 x 10	150	5.07	
Acer	Aspire V (V3-572-75D2)		1 - 1.19		15 x 10.1	151.5	5.62	
Acer	Aspire V (V3-572PG-546C)		1.04 - 1.24		15 x 10.1	151.5	6.06	

Brand	Model	Thickness		Dimensions		total area (sq. in.)	Weight	
		mm	inches	mm	inches		lbs	kg
Acer	Aspire V (V3-572P-326T)		1.04-1.24		15 x 10.1	151.5	6.06	
Acer	Aspire V (V3-575TG-700T)		0.94-1.12		15 x 10.2	153	5.29	
Acer	Aspire V (V3-575T-71U5)		0.94-1.12		15 x 10.2	153	5.29	
Acer	Aspire E (E5-575G-5341) (E5-575G-58UJ)		0.94-1.19		15 x 10.2	153	5.27	
Acer	Aspire E (E5-553G-1986)		0.94-1.19		15 x 10.2	153	5.27	
Acer	Aspire V 15 (V5-591G-55PV) (V5-591G-75YR) (V5-591G-74MJ)		1.08-1.19		15 x 10.2	153	5.29	
Acer	Aspire V Nitro (VN7-571G-76RC)		0.86-0.94		15.3 x 10.1	154.5	5.29	
Acer	Aspire V Nitro (VN7-571G-719D)		0.86-0.94		15.3 x 10.1	154.5	5.29	
Acer	Aspire V Nitro (VN7-572TG-775T)		1.02		15.4 x 10.3	158.6	5.29	
Acer	Aspire V Nitro (VN7-592G-77LB) (VN7-592G-70EN) (VN7-592G-58C3) (VN7-592G-7015) (VN7-592G-72VQ)		0.9		15.4 x 10.3	158.6	5.07	
Acer	Aspire R7 (R7-572-5893)		0.81		14.8 x 10.0	148	5.29	
Acer	Predator 15		1.5		15.4 x 11.8	181.7	7.5	

Brand	Model	Thickness		Dimensions		total area (sq. in.)	Weight	
		mm	inches	mm	inches		lbs	kg
Apple	MacBook Pro with Retina Display (2015)	18	0.71	358.9 x 247.1	14.13 x 9.73	137.48	4.49	2.04
Apple	MacBook Pro - Silver	15.5	0.61	349.3 x 240.7	13.75 x 9.48	130.4	4.02	1.83
Apple	MacBook Pro	15.5	0.61	349.3 x 240.7	13.75 x 9.48	130.4	4.02	1.83
ASUS	ROG GL552VW		1.29-1.37		15.2 x 10.1	153.52	5.6	
ASUS	ROG GL502VT		0.92		14.35 x 10.47	150.2	4.4	
ASUS	ROG STRIX GL502VY		1.18		15.35 x 10.47	160.7	4.9	
ASUS	ROG GL502VS		1.18		15.35 x 10.47	160.7	5.15	
ASUS	ROG GL502VM		0.92		15.35 x 10.47	160.7	4.8	
ASUS	F555UA		1		15.0 x 10.1	151.5	5.07	
ASUS	X555YA		1.01		15.03 x 10.07	151.4	4.85	
ASUS	ZenBook Pro UX501UW		0.78		15.03 x 10.03	150.7	4.4	
ASUS	ZenBook Pro UX501VW		0.81-0.84		15.07 x 10.04	151.3	4.54	
Fujitsu	Lifebook E756		0.78-1.06		14.72 x 9.84	144.8	4.2	
Fujitsu	Lifebook E556		0.95-1.23		14.72 x 9.84	144.8	4.9	
HP	250 G5 (W0S98UT#ABA)		0.96		15.13 x 10.02	151.6	4.32	
HP	Laptop 15t		0.95		15.12 x 10.02	151.5	4.73	
HP	EliteBook 755 G3		0.76 (non-touch) 0.82 (touch)		15.09 x 10.1	152.4	4.1 (non touch) 4.54 (touch)	
HP	EliteBook 850 G3		0.76		15.09 x 10.1	152.4	4.06 (non-touch) 4.54 (touch)	
HP	Envy 15t		0.71		14.96 x 10.04	150.1	4.44	
HP	Envy 15-as-152nr		0.71		14.96 x 10.04	150.1	4.32	
HP	OMEN 15t		0.96		15.06 x 9.94	149.6	4.85	

Brand	Model	Thickness		Dimensions		total area (sq. in.)	Weight	
		mm	inches	mm	inches		lbs	kg
HP	Pavilion 15t		0.96		15.06 x 9.94	149.6	4.81	
HP	Pavilion 15-bc051nr		0.96		15.06 x 9.94	149.6	4.81	
HP	ProBook 450 G3		0.94-0.98 (non touch) 1.00-1.04 (touch)		14.88 x 10.41 (non-touch) 14.88 x 10.42 (touch)	154.9 (non-touch) 155.0 (touch)	4.56	
HP	ProBook 450 G4		0.96		15.04 x 10.35	155.6	4.49	
HP	ProBook 455 G3		0.94-0.98		14.88 x 10.41	154.9	4.74	
HP	ProBook 650 G2		1.07		14.88 x 10.11	150.4	5.1	
HP	ProBook 655 G2		1.07		14.88 x 10.11	150.4	5.1	
HP	Zbook 15 G3		1		15.2 x 10.4	158.08	5.8	
HP	Zbook 15u G3		0.78		15.09 x 10.1	152.4	4.18	
HP	Zbook Studio G3		0.71		14.76 x 10.04	148.2	4.4	
Lenovo	Ideapad 110		0.9		14.88 x 10.43	155.2	4.8	
Lenovo	Ideapad 310		0.9		14.92 x 10.24	152.8	4.8	
Lenovo	Ideapad 510		0.9		14.92 x 10.24	152.8	4.63	
Lenovo	Ideapad 700 (15")		0.89		15.12 x 10.43	157.7	5.1	
Lenovo	Ideapad Y700 15		1.02		15.23 x 10.90	166	5.7	
Lenovo	Ideapad Y700 Touch		1.02		15.23 x 10.90	166	5.7	
Lenovo	ThinkPad P50		1.02		14.86 x 9.93	147.6	5.6	
Lenovo	ThinkPad P50s		0.88		14.98 x 10.17	152.3	5.27	
Lenovo	ThinkPad E570		0.9		14.92 x 10.27	153.2	5.1	
Lenovo	ThinkPad T560		0.88		14.98 x 10.16	152.2	5	
Lenovo	ThinkPad L560		1.09		14.84 x 10.04	148.9	5.2	
Samsung	Notebook 5 NP500R5L-M02US NP500R5L-M03US		0.82		14.76 x 9.76	144.1	4.19	
Samsung	Notebook 9 NP900X5L-K02US		0.57		13.64 x 9.32	127.1	2.9	

Brand	Model	Thickness		Dimensions		total area (sq. in.)	Weight	
		mm	inches	mm	inches		lbs	kg
Samsung	Notebook 9 Pro NP940Z5L-X01US		0.7		14.72 x 9.83	144.7	4.45	
Toshiba	Tecra C50 C1500 C1503 01301H		0.95		14.9 x 10.2	151.9	4.96* website also lists 3.97 for C1500 but not for C1502 or 01301H. The PDF supports the 4.96 lbs. claim.	
Toshiba	Tecra A50 C1540 C1541 C1543 03P01G 02J01E		0.9		14.9 x 10.2	151.9	4.96	
Toshiba	Tecra Z50 C1550 034007 034014		0.95		14.9 x 10.2	151.9	4.61	

Figure 2: Dimensional information. All links and data current as of 10/28/2016.

Brand	Model	Screen	Screen Resolution		Pixels
			Vertical	Horizontal	
Dell	XPS 15	15.6	3,840	2,160	8,294,400
Acer	Aspire E (E5-531P-P3Z4)	15.6	1,366	768	1,049,088
Acer	Aspire E (E5-531-C01E)	15.6	1,366	768	1,049,088
Acer	Aspire E (E5-532-P4H0) (E5-574-53QS) (E5-574-58JM) (E5-573-35JA) (E5-573-50PS) (E5-573-P0DP) (E5-573T-57FZ) (E5-532-P3D4) (E5-522-82C2) (E5-573-378G) (E5-552-T75L)	15.6	1,366	768	1,049,088
Acer	Aspire E (E5-573G-79HX)	15.6	1,920	1,080	2,073,600
Acer	Aspire E (E5-575G-53VG) (E5-575G-76YK)	15.6	1,920	1,080	2,073,600
Acer	Aspire E (E5-575G-52RJ)	15.6	1,920	1,080	2,073,600
Acer	Aspire E (E5-575-79EP) (E5-575-51GG) (E5-553G-F55F) (E5-553-T2XN) (E5-575-521W)	15.6	1,920	1,080	2,073,600
Acer	Aspire ES (ES1-512-25TP)	15.6	1,366	768	1,049,088

Brand	Model	Screen	Screen Resolution		Pixels
			Vertical	Horizontal	
Acer	Aspire E (E5-575-54E8) (E5-575-54SM) (E5-553-14YR) (E5-553-13AB) (E5-523-93FV) (E5-523-95RZ) (E5-553-102Z) (E5-553-11PT) (E5-523-97JY)	15.6	1,366	768	1,049,088
Acer	Aspire E (E5-774G-570J)				
Acer	Aspire ES (ES1-521-852R)	15.6	1,366	768	1,049,088
Acer	Aspire ES (ES1-531-P0JJ)	15.6	1,366	768	1,049,088
Acer	Aspire ES (ES1-571-C7N9) (ES1-571-P1MG) (ES1-571-33BQ) (ES1-571-C4E2) (ES1-571-30XX) (ES1-571-31XM)	15.6	1,366	768	1,049,088
Acer	Aspire ES (ES1-572-357C) (ES1-572-59E8)	15.6	1,366	768	1,049,088
Acer	Aspire F 15 (F5-571-50PF) (F5-571T-58AL) (F5-571T-783Z)	15.6	1,366	768	1,049,088
Acer	Aspire F 15 (F5-573T-50KY) (F5-573-32ZS)	15.6	1,366	768	1,049,088

Brand	Model	Screen	Screen Resolution		Pixels
			Vertical	Horizontal	
Acer	Aspire F 15 (F5-573-58VX) (F5-573-7630) (F5-573-58SW)	15.6	1,920	1,080	2,073,600
Acer	Aspire F 15 (F5-573-505W)	15.6	1,366	768	1,049,088
Acer	Aspire F 15 (F5-573-50JZ) (F5-573-57R7) (F5-573-55LV)	15.6	1,920	1,080	2,073,600
Acer	Aspire F 15 (F5-573G-7791) (F5-573G-56CG) (F5-573G-78R2) (F5-573G-74MV)	15.6	1,920	1,080	2,073,600
Acer	Aspire F 15 (F5-573G-510L) (F5-573G-77BJ)	15.6	1,920	1,080	2,073,600
Acer	TravelMate P6 (TMP658-MG-749P)	15.6	1,920	1,080	2,073,600
Acer	TravelMate P6 (TMP658-M-70S3)	15.6	1,920	1,080	2,073,600
Acer	TravelMate P6 (TMP658-M-50NJ) (TMP658-M-59SY)	15.6	1,366	768	1,049,088
Acer	Aspire V (V3-572-75D2)	15.6	1,920	1,080	2,073,600
Acer	Aspire V (V3-572PG-546C)	15.6	1,366	768	1,049,088
Acer	Aspire V (V3-572P-326T)	15.6	1,366	768	1,049,088

Brand	Model	Screen	Screen Resolution		Pixels
			Vertical	Horizontal	
Acer	Aspire V (V3-575TG-700T)	15.6	1,920	1,080	2,073,600
Acer	Aspire V (V3-575T-71U5)	15.6	1,920	1,080	2,073,600
Acer	Aspire E (E5-575G-5341) (E5-575G-58UJ)	15.6	1,920	1,080	2,073,600
Acer	Aspire E (E5-553G-1986)	15.6	1,920	1,080	2,073,600
Acer	Aspire V 15 (V5-591G-55PV) (V5-591G-75YR) (V5-591G-74MJ)	15.6	1,920	1,080	2,073,600
Acer	Aspire V Nitro (VN7-571G-76RC)	15.6	1,920	1,080	2,073,600
Acer	Aspire V Nitro (VN7-571G-719D)	15.6	1,920	1,080	2,073,600
Acer	Aspire V Nitro (VN7-572TG-775T)	15.6	1,920	1,080	2,073,600
Acer	Aspire V Nitro (VN7-592G-77LB) (VN7-592G-70EN) (VN7-592G-58C3) (VN7-592G-7015) (VN7-592G-72VQ)	15.6	1,920	1,080	2,073,600
Acer	Aspire R7 (R7-572-5893)	15.6	1,920	1,080	2,073,600
Acer	Predator 15	15.6	1,920	1,080	2,073,600
Apple	MacBook Pro with Retina Display (2015)	15.4	2,880	1,800	5,184,000
Apple	MacBook Pro - Silver	15.4	2,880	1,800	5,184,000
Apple	MacBook Pro	15.4	2,880	1,800	5,184,000

Brand	Model	Screen	Screen Resolution		Pixels
			Vertical	Horizontal	
ASUS	ROG GL552VW	15.6	1,920	1,080	2,073,600
ASUS	ROG GL502VT	15.6	1,920	1,080	2,073,600
ASUS	ROG STRIX GL502VY	15.6	1,920	1,080	2,073,600
ASUS	ROG GL502VS	15.6	3,840	2,160	8,294,400
ASUS	ROG GL502VM	15.6	3,840	2,160	8,294,400
ASUS	F555UA	15.6	1,366	768	1,049,088
ASUS	X555YA	15.6	1,920	1,080	2,073,600
ASUS	ZenBook Pro UX501UW	15.6	3,840	2,160	8,294,400
ASUS	ZenBook Pro UX501VW	15.6	3,840	2,160	8,294,400
Fujitsu	Lifebook E756	15.6	1,920	1,080	2,073,600
Fujitsu	Lifebook E556	15.6	1,920	1,080	2,073,600
HP	250 G5 (W0S98UT#ABA)	15.6	1,366	768	1,049,088
HP	Laptop 15t	15.6	1,920	1,080	2,073,600
HP	EliteBook 755 G3	15.6	1,920	1,080	2,073,600
HP	EliteBook 850 G3	15.6	1,920	1,080	2,073,600
HP	Envy 15t	15.6	3,840	2,160	8,294,400
HP	Envy 15-as-152nr	15.6	3,840	2,160	8,294,400
HP	OMEN 15t	15.6	3,840	2,160	8,294,400
HP	Pavilion 15t	15.6	3,840	2,160	8,294,400
HP	Pavilion 15-bc051nr	15.6	1,920	1,080	2,073,600
HP	ProBook 450 G3	15.6	1,920	1,080	2,073,600
HP	ProBook 450 G4	15.6	1,366	768	1,049,088
HP	ProBook 455 G3	15.6	1,366	768	1,049,088
HP	ProBook 650 G2	15.6	1,920	1,080	2,073,600
HP	ProBook 655 G2	15.6	1,920	1,080	2,073,600
HP	Zbook 15 G3	15.6	3,840	2,160	8,294,400

Brand	Model	Screen	Screen Resolution		Pixels
			Vertical	Horizontal	
HP	Zbook 15u G3	15.6	3,840	2,160	8,294,400
HP	Zbook Studio G3	15.6	3,840	2,160	8,294,400
Lenovo	Ideapad 110	15.6	1,366	768	1,049,088
Lenovo	Ideapad 310	15.6	1,366	768	1,049,088
Lenovo	Ideapad 510	15.6	1,920	1,080	2,073,600
Lenovo	Ideapad 700 (15")	15.6	1,920	1,080	2,073,600
Lenovo	Ideapad Y700 15	15.6	1,920	1,080	2,073,600
Lenovo	Ideapad Y700 Touch	15.6	3,840	2,160	8,294,400
Lenovo	ThinkPad P50	15.6	3,840	2,160	8,294,400
Lenovo	ThinkPad P50s	15.5	2,880	1,620	4,665,600
Lenovo	ThinkPad E570	15.6	1,920	1,080	2,073,600
Lenovo	ThinkPad T560	15.5	2,560	1,440	3,686,400
Lenovo	ThinkPad L560	15.6	1,920	1,080	2,073,600
Samsung	Notebook 5 NP500R5L-M02US NP500R5L-M03US	15.6	1,920	1,080	2,073,600
Samsung	Notebook 9 NP900X5L-K02US	15	1,920	1,080	2,073,600
Samsung	Notebook 9 Pro NP940Z5L-X01US	15.6	3,840	2,160	8,294,400
Toshiba	Tecra C50 C1500 C1503 01301H	15.6	1,366	768	1,049,088
Toshiba	Tecra A50 C1540 C1541 C1543 03P01G 02J01E	15.6	1,366	768	1,049,088

Brand	Model	Screen	Screen Resolution		Pixels
			Vertical	Horizontal	
Toshiba	Tecra Z50 C1550 034007 034014	15.6	1,920	1,080	2,073,600

Figure 3: Display information. All links and data current as of 10/28/2016.

Brand	Model	Processor	Graphics Card
Dell	XPS 15	6th generation Intel Core processors up to quad-core i7	NVIDIA® GEFORCE® GTX 960M
Acer	Aspire E (E5-573G-79HX)	Intel Core i7-6500U Intel Core i5-6200U Intel Core i7-5500U	NVIDIA GeForce 940M with 4 GB Dedicated Memory
Acer	Aspire E (E5-575G-53VG) (E5-575G-76YK)	Intel Core i5-6200U Intel Core i7-6500U	NVIDIA GeForce 940MX with 2 GB Dedicated Memory
Acer	Aspire E (E5-575G-52RJ)	Intel Core i5-6200U	NVIDIA GeForce 940M with 2 GB Dedicated Memory
Acer	Aspire F 15 (F5-573G-7791) (F5-573G-56CG) (F5-573G-78R2) (F5-573G-74MV)	Intel Core i7-7500U Intel Core i7-6500U Intel Core i5-6200U	NVIDIA GeForce 940MX with 4 GB Dedicated Memory
Acer	Aspire F 15 (F5-573G-510L) (F5-573G-77BJ)	Intel Core i5-7500U	NVIDIA GeForce 950M with 4GB Dedicated Memory
Acer	TravelMate P6 (TMP658-MG-749P)	Intel Core i7-6500U	NVIDIA GeForce 940M with 2 GB Dedicated Memory
Acer	Aspire V (V3-572PG-546C)	Intel Core i5-5200U Intel Core i7-5500U	NVIDIA GeForce 840M with 2 GB Dedicated Memory
Acer	Aspire V (V3-575TG-700T)	Intel Core i7-6500U	NVIDIA GeForce 940M with 4 GB Dedicated Memory
Acer	Aspire E (E5-575G-5341) (E5-575G-58UJ)	Intel Core i5-6200U	NVIDIA GeForce GTX 950M with 2 GB Dedicated Memory
Acer	Aspire V 15 (V5-591G-55PV) (V5-591G-75YR) (V5-591G-74MJ)	Intel Core i5-6300HQ Intel Core i7-6700HQ	NVIDIA GeForce GTX 950M with 2 GB Dedicated Memory

Brand	Model	Processor	Graphics Card
Acer	Aspire V Nitro (VN7-571G-76RC)	Intel Core i7-5500U	NVIDIA GeForce 940M with 2 GB Dedicated Memory
Acer	Aspire V Nitro (VN7-571G-719D)	Intel Core i7-4720HQ Intel Core i5-5200U	NVIDIA GeForce GTX 950M with 4GB Dedicated Memory
Acer	Aspire V Nitro (VN7-572TG-775T)	Intel Core i7-6500U	NVIDIA GeForce GTX 950M with 4 GB Dedicated Memory
Acer	Aspire V Nitro (VN7-592G-77LB) (VN7-592G-70EN) (VN7-592G-58C3) (VN7-592G-7015) (VN7-592G-72VQ)	Intel Core i7-6700HQ	NVIDIA GeForce GTX 960M with 4GB Dedicated Memory
Acer	Predator 15	Intel Core i7-6700HQ	NVIDIA GeForce GTX 980M with 4GB Dedicated Memory
Apple	MacBook Pro with Retina Display (2015)	Intel Core i7-4870HQ	AMD Radeon R9 M370X with 2GB of GDDR5 memory
Apple	MacBook Pro - Silver	2.2-3.4GHz quad-core Intel i7 2.5-3.7GHz quad-core Intel i7 2.8-4.0GHz quad-core Intel i7	Intel Iris Pro Graphics
Apple	MacBook Pro	2.6-3.5GHz quad-core Intel Core i7 2.7-3.6GHz quad-core Intel Core i7	AMD Radeon Pro 450 AMD Radeon Pro 455
ASUS	ROG GL552VW	Intel Core i5 6300HQ Intel Core i7 6700HQ	NVIDIA GeForce GTX 960M with 2G/4G GDDR5 VRAM
ASUS	ROG STRIX GL502VY	Intel Core i7 6700HQ	NVIDIA GeForce GTX 980M with 4G/8G GDDR5 VRAM
ASUS	ROG GL502VS	Intel Core i7-6700HQ	NVIDIA GeForce GTX 1070 4GB/8GB
ASUS	ROG GL502VM	Intel Core i7-6700HQ Intel Core i5-6300HQ	NVIDIA GeForce GTX 1060 3GB/6GB
ASUS	ZenBook Pro UX501UW	Intel Core i7-6500U Intel Core i5-6200U	NVIDIA GeForce GTX 960M with 2GB/4GB
ASUS	ZenBook Pro UX501VW	Intel Core i7 6700HQ	NVIDIA GeForce GTX 960M with 2G/4G GDDR5
HP	EliteBook 850 G3	Intel Core i7-6600U Intel Core i7-6500U Intel Core i5-6300U	AMD Radeon R7 M365X 1GB

Brand	Model	Processor	Graphics Card
		Intel Core i5-6200U Intel Core i3-6100U	
HP	OMEN 15t	Intel Core i7-6700HQ	NVIDIA GeForce GTX 960M 4GB
HP	Pavilion 15t	Intel Core i7-6700HQ Intel Core i5-6300HQ	NVIDIA GeForce GTX 960M 4GB
HP	Pavilion 15-bc051nr	Intel Core i7-6700HQ	NVIDIA GeForce GTX 950M 2 GB
HP	ProBook 450 G4	Intel Core i7-7500U Intel Core i5-7200U Intel Core i3-7100U	NVIDIA GeForce 940MX 4GB
HP	ProBook 650 G2	Intel Core i7-6600U Intel Core i5-6300U	AMD Radeon R7 M365X 2GB
HP	Zbook 15 G3	Intel Xeon E3-1545M Intel Xeon E3-1505M Intel Core i7-6820HQ Intel Core i7-6700HQ Intel Core i5-6440HQ	NVIDIA Quadro M2000M 4GB
HP	Zbook 15u G3	Intel Core i7-6500U Intel Core i7-6600U Intel Core i5-6300U Intel Core i5-6200U	AMD FirePro W4190M 2 GB
HP	Zbook Studio G3	Intel Xeon E3-1545M Intel Xeon E3-1505M Intel Core i7-6820HQ Intel Core i7-6700HQ	NVIDIA Quadro M1000M 4GB
Lenovo	Ideapad 510	Intel Core i7-6500U	NVIDIA GeForce 940MX 4GB
Lenovo	Ideapad 700 (15")	Intel Core i7-6700HQ Intel Core i5-6300HQ	NVIDIA GeForce 950 4GB
Lenovo	Ideapad Y700 15	Intel Core i7-6700HQ Intel Core i5-6300HQ	NVIDIA GeForce GTX 950M 4GB
Lenovo	Ideapad Y700 Touch	Up to 6th Generation Intel® Quad-Core i7 Processor	NVIDIA GeForce GTX960M 4 GB
Lenovo	ThinkPad P50	Intel Xeon E3-1505M v5	NVIDIA Quadro M2000M

Brand	Model	Processor	Graphics Card
Lenovo	ThinkPad P50s	Intel Core i5-6300U Intel Core i7-6500U Intel Core i7-6600U	NVIDIA Quadro M500M 2GB
Lenovo	ThinkPad E570	Intel Core i7-7500U Intel Core i5-7200U Intel Core i3-7100U	NVIDIA GeForce GTX 950M 2GB
Samsung	Notebook 9 Pro NP940Z5L-X01US	Intel Core i7 6700HQ	NVIDIA GeForce GTX 950M 2GB

Figure 4: Processor and graphics card information. All links and data current as of 10/28/2016.

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, websites, 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.