

Product Specifications Reference Version 549, October 2019

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Summary of Changes

This section describes the technical changes made in this edition.

This edition might also include minor corrections and editorial changes which are not identified.

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Additions in this update

► New product(s)

None

► New model(s)

None

▶ Others

ThinkPad X390 Yoga - Spec updated

Withdrawals in this update

► Withdrawn product(s)

None











ThinkPad X1 Tablet (3rd Gen) Platform Specifications

Processor	8th Generation Intel® Core™ i5 / i7 Processor Processor # of # of Base Max Turbo Number Cores Threads Frequency Frequency Frequency Frequency Graphics	Control buttons Dock Monitor cable	Power button, volume control button, reset switch Optional: Thin Keyboard or USB-C Dock None		
	1.6 GHz 3.4 GHz 6MB 1.7 GHz 3.6 GHz 6MB 1.7 GHz 3.6 GHz 6MB 1.8 GHz 4.0 GHz 8MB LPDDR3-2133 Intel UHD Graphics 620	Bundled Accy (optional)	USB-C to RJ45: Lenovo USB-C to Ethernet Adapter USB-C to VGA: Lenovo USB C to VGA Plus Power Adapter USB-C to HDMI: Lenovo USB-C to HDMI Plus Power Adapter		
	i7-8650U 1.9 GHz 4.2 GHz 8MB	Camera	Front camera: 2.0-megapixel, fixed focus Rear camera: 8.0-megapixel, auto focus		
Graphics	Intel UHD Graphics 620 in processor, supports external digital monitor via USB Type-C	IR Camera Audio support	Optional: IR camera, fixed focus (mutually exclusive with NFC) Realtek® ALC3278 codec / stereo speakers, 1W x 2 / dual array microphones, combo audio/microphone jack		
Chipset Memory	Intel SoC (System on Chip) platform 8GB or 16GB / 2133MHz LPDDR3, soldered to systemboard, no sockets	Pogo keyboard	Magnetic attached thin keyboard, with TrackPoint® pointing device and buttonless Mylar surface touchpad, multi-touch, backlit		
Display	13.0" (330mm) QHD+ (3000x2000), glossy, LED backlight, IPS, anti-figerprint display with Corning® Gorilla® Glass, WideView (160° viewing),	Keyboard color	Black		
Multi-touch Pen (optional) Kick stand	400 nits, 3:2 aspect ratio, 1200:1 contrast ratio Capacitive touch panel, supports ten-finger gesture Lenovo Pen Pro or Lenovo Active Pen (ThinkPad Pen Pro) Opening angle up to 170 degrees	Security Security chip System Mgt (opt) Fingerprint reade NFC (optional)	Kensington lock slot Discrete TPM 2.0 TCG Certified Intel vPro Technology or Optional: Touch style Fingerprint reader Near Field Communication (mutually exclusive with IR camera)		
Storage Optical Storage extensio	One of the following, configurable by model: • M.2 2280 SSD / SATA 6.0Gb/s • M.2 2280 SSD / PCIe NVMe, PCIe 3.0 x 4, 32Gb/s None nOne MicroSD card reader, in the combo slot with nano-SIM card, support	Battery Max battery life AC adapter	Integrated Li-Ion 42Wh battery MobileMark® 2014: 9.5 hrs * Battery life varies significantly with settings, usage, & other factors 45W or 65W USB Type-C AC adapter		
Ethernet	USH-I, microSDHC, microSDXC None		Ambient Light Sensor 3D accelerometer		
WLAN Bluetooth™	Intel Dual Band Wireless-AC 8265, Wi-Fi 2x2 802.11ac + Bluetooth 4.2, M.2 card Bluetooth 4.2 wireless, integrated in Wi-Fi + Bluetooth combo adapter	Gyroscope GPS (optional)	3D gyrometer GPS function is integrated into WWAN module		
WWAN (optional) SIM card (opt)	Integrated Mobile Broadband 4G LTE-A, Qualcomm® Snapdragon™ X7 LTE-A (Sierra Wireless EM7455) Nano-SIM card slot, in the combo slot with microSD card reader	Preload	One of the following, configurable by model: • Windows® 10 Pro 64 • Windows 10 Home 64		
Dimensions	Tablet only: 11.97" x 8.9" x 0.35"; 304.1mm x 226mm x 8.9mm Tablet + keyboard: 11.97" x 8.9" x 0.57"; 304.1mm x 226mm x 14.4mm	Limited warranty	One of the following, configurable by model: 1-year depot repair service 3-year/1-yr battery depot repair service		
Weight	Tablet only: starting at 1.96 lb / 0.89kg Tablet+ keyboard: starting at 2.8 lb / 1.27kg		3-year/1-yr battery limited onsite service		
Case color Case material	Black Magnesium/Aluminum	Mil-Spec test Environment	MIL-STD-810G military testing EPEAT™ Silver, GREENGUARD, Low Halogen, RoHS		
Smart card reade Ports		Environment	EFEAT ···· Silver, GNEENGOAND, LOW Halogeri, HONS		











ThinkPad L380 Yoga Platform Specifications

Processor	7th Generation Intel® Core™ i3 / i5 Processor	Dimensions WxDxH: 12.67" x 8.82" x 0.74"; 322mm x 224.2mm x 18.8mm					
	Processor # of # of Base Max Turbo Cache Memory Processor	Weight Case color					
	Number Cores I frequency Frequency Types Graphics	Case material	Display cover: Aluminum				
	i3-7020U 2 4 2.3 GHz // 3MB DDR4-2133 Intel HD Graphics 620		Bottom: GFRP				
	8th Generation Intel Core i3 / i5 / i7 Processor	Smart card reader					
	Draggery # of # of Dage May Turks Mayory Draggery	Media reader Ports	MicroSD card reader Two USB 3.1 Gen 1 (one Always On),				
	Number Cores Threads Frequency Frequency Cache Types Graphics		two USB 3.1 Type-C Gen 1 (with the function of Power Delivery and DisplayPort),				
	i3-8130U 2 4 2.2 GHz 3.4 GHz 4MB		HDMI 1.4b, Ethernet extension connector, headphone / microphone combo jack, microSD card reader, security keyhole				
	1.6 GHz 3.4 GHz 6MB DDR4-2400 Intel UHD Graphics		* Depending on many factors, actual data transfer speed may be lower than theoretical speed				
	13-83300 4 8 1.7 GHZ 3.0 GHZ 0WB	Monitor cable	HDMI to VGA: Lenovo HDMI to VGA Monitor Adapter				
		(optional)	USB-C to VGA: Lenovo USB-C to VGA Adapter USB-C to DP: Lenovo USB-C to DisplayPort Adapter				
Graphics	Intel HD Graphics 620 or Intel UHD Graphics 620 in processor; supports external digital monitor via HDMI or USB Type-C;	Camera	720p: HD720p resolution, low light sensitive, fixed focus				
	supports three independent displays:		IR & 720p: IR camera and HD720p camera, fixed focus				
	Max resolution: 4096x2304@60Hz (USB Type-C); 4096x2160@30Hz (HDMI)	Audio support	World facing: Rear camera, 5MP resolution, auto focus HD Audio, Realtek ALC3287 codec, Dolby® Advance / stereo speakers, 2W x 2 /				
Chipset Memory	Intel SoC (System on Chip) platform Up to 32GB max / 2400MHz DDR4, dual-channel capable,		dual array microphone, headphone / microphone combo jack				
wemory	two DDR4 SO-DIMM sockets		6-row, multimedia Fn keys, optional LED backlight				
	* System clocks down for processors with lower memory controller	UltraNav™	TrackPoint® pointing device and buttonless Mylar surface touchpad, multi-touch				
Display	13.3" (338mm) FHD (1920x1080), glossy, LED backlight, IPS, 300 nits,	Security Security chip	Power-on password, hard disk password, supervisor password, security keyhole				
Multi-touch (opt)	16:9 aspect ratio, 800:1 contrast ratio, 170° viewing angle Capacitive-type multi-touch, AR (anti-reflection), supports 10-finger gesture		Discrete TPM 2.0, TCG Certified Intel vPro Technology				
Hinge ` ' / '	Yoga hinge, 360 degree	Fingerprint reader	r Optional: Touch style fingerprint reader on the keyboard bezel,				
Convert-mode Pen	Laptop, tent, stand, yoga and tablet ThinkPad Pen Pro, active pen for multi-touch display, on-board garage	NFC (optional)	anti-spoofing technology Near Field Communication (mutually exclusive with smart card reader)				
Storage	One of the following, configurable by model:	Battery	Integrated Li-Ion 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr)				
Storage	M.2 SSD / SATA 6.0Gb/s (e.g. xxxGB SSD M.2)	,	with 65W USB Type-C AC adapter				
	• M.2 SSD / PCIe NVMe, PCIe 3.0 x 4, 32Gb/s (e.g. xxxGB SSD M.2 PCIe NVMe)	Max battery life	MobileMark® 2014: 12.85 hrs				
Optane Memory Optical	None None	AC adapter	* Battery life varies significantly with settings, usage, & other factors 45W or 65W USB Type-C AC adapter				
Ethernet	Native Intel Ethernet Connection I219-V (<i>Non-vPro</i>) or I219-LM (<i>vPro</i>))	Preload	Windows® 10 Home 64 or Windows 10 Pro 64				
	via optional ThinkPad Ethernet Extension Cable Gen 2	Limited warranty	One of the following, configurable by model:				
WLAN +	Intel Dual Band Wireless-AC 8265, Wi-Fi 2x2 802.11ac + Bluetooth 4.1, M.2 card	-	1-year depot repair service				
Bluetooth™	* Wireless card supports BT4.2 but is limited to BT4.1 by Windows OS		 1-year depot with 2-year planar 3-year/1-yr battery depot repair service 				
WWAN SIM card	None None		3-year/1-yr battery limited onsite service				
		Mil-Spec test	MIL-STD-810G military testing				
		Environment	EPEAT™ Gold; ENERGY STAR® 6.1; RoHS-compliant				
			Lenovo				

Lenovo March 2019



ThinkPad L390 Yoga Platform Specifications

Processor	8th Gener	ation I	ntel® Cor	e™ i3 / i5 /	i7 Process	or			Smart card readerNone				
	Processor Number		# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics	Media reader Ports	MicroSD card reader Two USB 3.1 Gen 1 (with the function of Power Polivery and DisplayPort)			
	i3-8145U i5-8265U i5-8365U	2 4 4	8 8	2.1 GHz 1.6 GHz 1.6 GHz	3.9 GHz 3.9 GHz 4.1 GHz	4MB 6MB 6MB	DDR4-2400	Intel UHD Graphics 620		two USB 3.1 Type-C Gen 1 (with the function of Power Delivery and DisplayPort), HDMI 1.4b, Ethernet extension connector, headphone / microphone combo jack, microSD card reader, security keyhole * Depending on many factors, actual data transfer speed may be lower than theoretical speed			
	i7-8565U	4	8	1.8 GHz	4.6 GHz	8MB			Monitor cable (optional)	USB-C to VGA: Lenovo USB-C to VGA Adapter USB-C to VGA + Power Adapter: Lenovo USB-C to VGA plus Power Adapter			
Graphics	supports t	externa three ir	al digital independe	n processo monitor via ent displays 04@60Hz	HDMI or U ;	,,	,	30Hz (HDMI)	Bundled	USB-C to HDMI: USB-C to HDMI + Power Adapter: Lenovo USB-C to HDMI plus Power Adapter USB-C to DP: Lenovo USB-C to DisplayPort Adapter Lenovo USB-C to Ethernet Adapter			
Chipset Memory				ip) platform DR4, dual-c		pable, t	wo DDR4 S	SO-DIMM sockets	Accessories (optional)	USB-C to USB-A: USB-C to USB-C: Lenovo USB-C to USB-A Adapter Lenovo USB-C to USB-C Cable 2M			
Display Multi-touch Hinge	300 nits, 1 Capacitive	16:9 as e-type	pect ration	20x1080), g b, 800:1 co ch, AR (ant	ntrast ratio	, 72% g	jamut, 170°	viewing angle er gesture	Camera	720p: HD720p resolution, low light sensitive, fixed focus IR & 720p: IR camera and HD720p camera, fixed focus (black model only) World facing: 5MP resolution, auto focus (mutually exclusive with fingerprint reader)			
Multi-mode Pen <i>(optional)</i>	Yoga hinge, 360 degree Notebook, stand, tent, tablet ThinkPad Pen Pro, active pen for multi-touch display, on-board garage								Audio support	HD Audio, Realtek ALĆ3287 codec, Dolby® Àudio™ Premium / stereo speakers, 2W x 2 / dual array microphone, headphone / microphone combo jack			
Storage	 M.2 SSI 	D/SAT	ΓΑ 6.0Ğb						Keyboard UltraNav™	6-row, spill-resistant, multimedia Fn keys, optional LED backlight TrackPoint® pointing device and buttonless Mylar surface touchpad, multi-touch			
	 M.2 (228 Intel Op M.2 228 	80) SS tane M 80, PCI	D / PCIe lemory H e NVMe		le 3.0 x 4	torage,			Security Security chip System Mat (ont)	Power-on password, supervisor password, system management password, hard disk password, security keyhole Discrete TPM 2.0, TCG Certified Intel vPro Technology			
Optane™ Memory Optical	None								Fingerprint reade	r Optional: Touch style fingerprint reader on the palm rest (mutually exclusive with World facing camera)			
Storage				rable by mod		1.0\			NFC (optional)	Near Field Communication			
	• M.2 SSI	D / SA D / PC	le NVMe	/s (e.g. xxx , PCle 3.0 :	x 4, 32Gb/s	ı.∠) s (e.g. x	xxGB SSD	M.2 PCIe NVMe)	Battery	Integrated Li-Ion 45Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W USB Type-C AC adapter			
Optical	None								Max battery life	MobileMark® 2014: 12.17 hrs			
Ethernet	via optiona	al Thin	kPad Eth	nection I21 ernet Exte et Adapter	9-V (<i>Non-</i> nsion Cabl	<i>vPro</i>) o e or	r I219-LM (vPro)	AC adapter	* Battery life varies significantly with settings, usage, & other factors 45W or 65W USB Type-C AC adapter			
WLAN				Vi-Fi 2x2 80	20 11 22	Olivetee	+h = 0 M 0	2049	Preload	Windows® 10 Home 64 or Windows 10 Pro 64			
Bluetooth™				tegrated in					Limited warranty	One of the following, configurable by model: 1-year depot repair service			
WWAN	None									1-year depot with 2-year planar			
Dimensions Weight	WxDxH: 12.67" x 8.82" x 0.74"; 321.8mm x 224.2mm x 18.8mm Starting at 3.44 lbs / 1.56 kg									3-year/1-yr battery depot repair service 3-year/1-yr battery limited onsite service			
Case color	Black or Silver Display cover: Magnesium / Aluminum								Mil-Spec test	MIL-STD-810G military testing			
Case material	Display co Bottom:	over: N	Magnesiu GFRP	im / Aiumin	um				Environment	EPEAT™ Silver; ENERGY STAR® 7.1; RoHS-compliant			

Lenovo July 2019







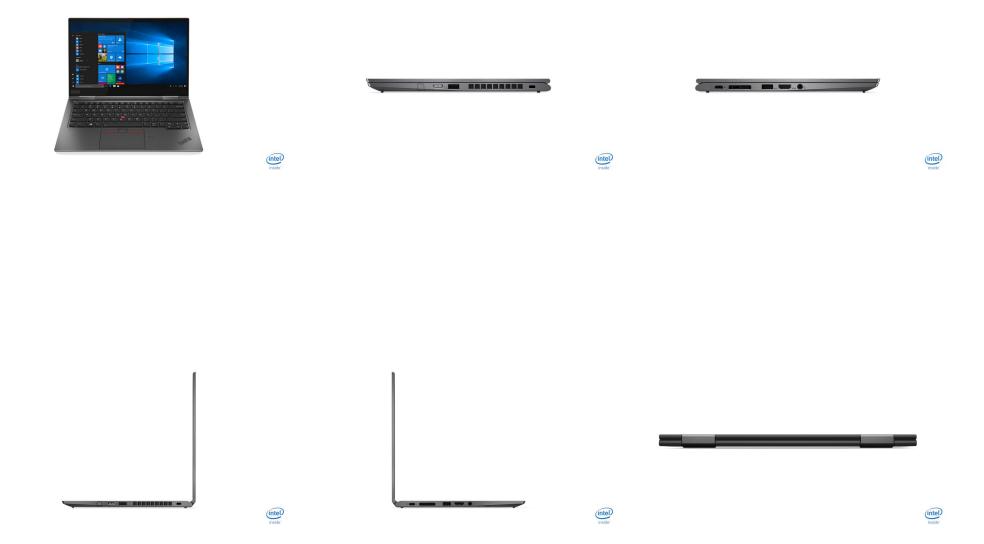






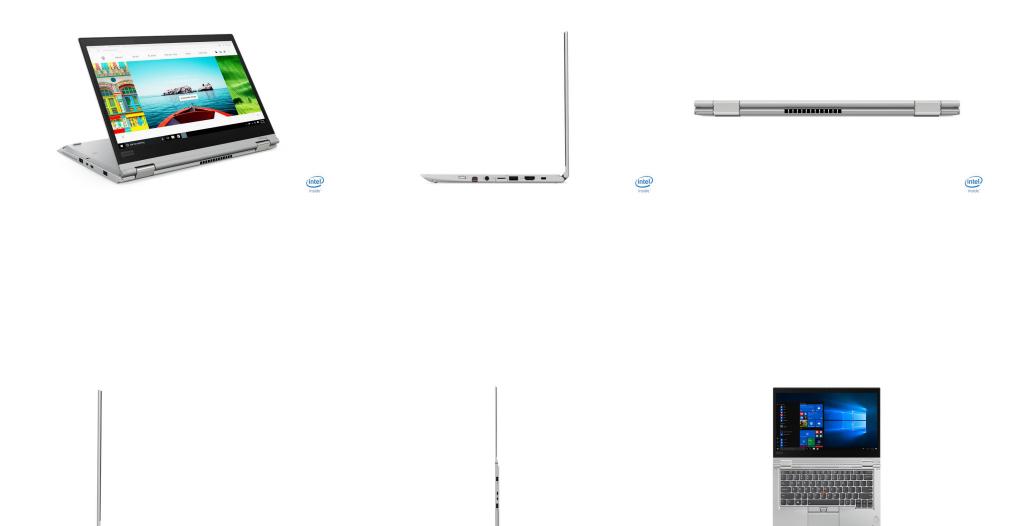
ThinkPad X1 Yoga (3rd Gen) Platform Specifications

Processor	7th Generation Intel® Core™ i5 Processor	Smart card readerNo	one	
	Processor Number# of Cores# of ThreadsBase FrequencyMax Turbo FrequencyCacheMemory TypesProcessor Graphicsi5-7300U242.6 GHz3.5 GHz3MBLPDDR3-1866Intel HD Graphics 620	Media reader Ports Mi Tw 3, he	bilicroSD card reader, supports UHS-II wo USB 3.1 Type-C Gen 2 / Thunderbolt wo USB 3.1 Gen 1 (one Always On), two USB 3.1 Type-C Gen 2 / Thunderbolt HDMI 1.4, Ethernet extension connector, nano-SIM card slot (WWAN models), eadphone / microphone combo jack, microSD card reader Depending on many factors, actual data transfer speed may be lower than theoretical speed	
	8th Generation Intel Core i5 / i7 Processor	WiGig dock No	one IDMI to VGA: Lenovo HDMI to VGA Monitor Adapter	
	Processor # of # of Base Max Turbo Number Cores Threads Frequency Frequency Processor Graphics		ISB-C to VGA: Lenovo USB-C to VGA Adapter ISB-C to DP: Lenovo USB-C to DisplayPort Adapter	
	1.6 GHz 3.4 GHz 6MB 1.7 GHz 3.6 GHz 6MB 1.7 GHz 3.6 GHz 6MB 1.8 GHz 4.0 GHz 8MB 1.9 GHz 4.2 GHz 8MB 1.9 GHz 1.2 GHz	72 IR * 1	One of the following, configurable by model: 20p: HD720p camera with ThinkShutter camera privacy, fixed focus R & 720p: IR camera and HD720p camera, fixed focus WWAN models and HDR panel models can not support IR camera	
Graphics	Intel HD Graphics 620 or Intel UHD Graphics 620 in processor; supports external digital monitor via HDMI or USB Type-C;	11	D Audio, Realtek® ALC3286 codec, Dolby® Audio™ Premium / stereo speakers, W x 2 / dual array microphone, headphone / microphone combo jack	
	supports three independent displays; Max resolution: 5120x2880@60Hz (USB Type-C); 4096x2160@30Hz (HDMI)		row wave keyboard (rise & fall), spill-resistant, multimedia Fn keys, LED backlit rackPoint® pointing device and 3+2 buttons multi-touch clickpad	
Chipset Memory	Intel SoC (System on Chip) platform 8GB or 16GB / 2133MHz LPDDR3 / soldered to systemboard, no sockets	Security chip Di	ower-on password, hard disk password, supervisor password, security keyhole iscrete TPM 2.0 TCG Certified	
Display	Some: 14.0" (355mm) FHD (1920x1080), LED backlight, 300 nits, 16:9 aspect ratio, 700:1 contrast ratio, 72% gamut, 170° viewing angle, IPS	Fingerprint reader To	Intel vPro Technology Touch style match on chip fingerprint reader on the palm rest Near Field Communication	
	Some: 14.0" (355mm) WQHD (2560x1440), LED backlight, 300 nits, 16:9 aspect ratio, 700:1 contrast ratio, 72% gamut, 170° viewing angle, IPS Some: 14.0" (355mm) HDR WQHD (2560x1440) with Dolby Vision™, LED backlight, 500 nits, 16:9 aspect ratio, 1500:1 contrast ratio, 100% gamut, 170° viewing angle, IPS	Battery Int Wi Max battery life Mo * E	Integrated Li-Ion 54Wh battery, supports Rapid Charge (charge up to 80% in 1 with 65W USB Type-C AC adapter MobileMark® 2014: 15.4 hrs * Battery life varies significantly with settings, usage, & other factors	
Multi-touch	Capacitive-type multi-touch, AR (anti-reflection), AS (anti-smudge), supports 10-finger gesture, reduces overall display brightness by 10%		5W or 65W USB Type-C AC adapter mbient Light Sensor	
Hinge Convert-mode Pen <i>(optional)</i>	Yoga hinge, 360 degree Laptop, tent, stand, and tablet ThinkPad Pen Pro, active pen for multi-touch display, on-board rechargeable	G-sensor 3E Gyroscope 3E	D accelerometer D gyrometer PS function is integrated into WWAN module	
Storage	Some: M.2 SSD / SATA 6.0Gb/s (e.g. xxxG SSD)		/indows® 10 Pro 64	
Optical Ethernet	Some: M.2 SSD / PCIe NVMe, PCIe 3.0 x 4, 32Gb/s (e.g. xxxG SSD PCIe NVMe) None Native Intel Ethernet Connection WGI219-LM (vPro)	•	ne of the following, configurable by model: 1-year depot repair service 1-year depot with 2-year planar	
WLAN	via optional ThinkPad Ethernet Extension Cable Intel Dual Band Wireless-AC 8265, Wi-Fi 2x2 802.11ac + Bluetooth 4.1, M.2 card		3-year/1-yr battery depot repair service	
	*Intel Bulai Baild Wileless-AC 265, WIFT 2x2 602.11ac + Bidetootif 4.1, Ni.2 card * *Intel 8265ac card supports BT4.2 but is limited to BT4.1 by Windows OS Bluetooth 4.1 wireless, integrated in Wi-Fi + Bluetooth combo adapter		PEAT™ Silver; ENERGY STAR®; RoHS-compliant	
Bluetooth™ WWAN (optional)	Integrated Mobile Broadband 4G LTE-A,			
SIM card (opt)	Intel XMM™ 7360 (Fibocom L850-GL), M.2 card Nano-SIM card slot, optional Verizon LTE (US) SIM card			
Dimensions Weight Case color	WxDxH: 13.11" x 9.02" x 0.67"; 333mm x 229mm x 17.05mm Starting at 3.08 lb (1.4kg) Black or silver			
Case material	Display cover: Carbon-Fiber and Glass-Fiber hybrid; Bottom: magnesium-PPS hybrid			
			Lenovo	



ThinkPad X1 Yoga (4th Gen) Platform Specifications

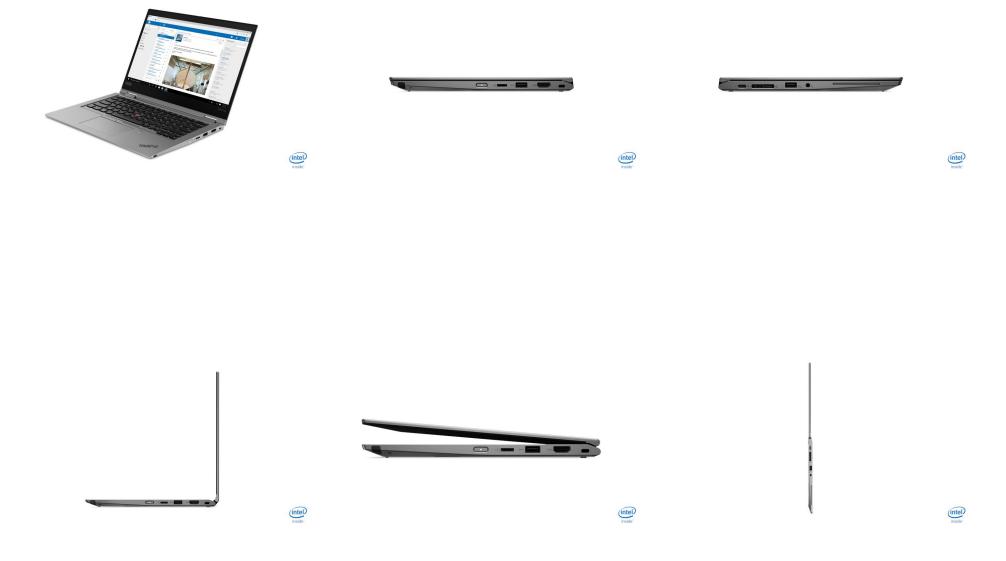
Processor			n Intel® C on Intel® (essor or essor (Not	availab	e in EM	EA)		Dimensions Weight	WxDxH: 12.71" x 8.58" x 0.61"; 323mm x 218mm x 15.5mm Privacy Guard model: starting at 3.24lb / 1.47kg			
	Proces			Bas		Turba	ne Memo		Proce	essor	vveignt	Other model: starting at 2.99 lb / 1.36kg			
	Numl		res Thread			quency		ry rypes	Grap	hics	Case color	Iron Grey			
	i5-826		1.0 GHZ 0.0 GHZ 0MD		Case material	Display cover: Aluminium; Bottom: Magnesium									
	i5-836			1.6 0		GHz 6ME	_		Intel Graphi		Smart card reade				
	i7-866		8	1.9 0		GHz 8ME		R3-2133	Спарт	03 020	Media reader	None			
	i5-102			1.6 0		GHz 6ME					Ports	Two USB 3.1 Gen 1 (one Always On), two USB 3.1 Type-C Gen 2 / Thunderbolt 3			
	i7-105	10U		1.8 0	3Hz 4.9	GHz 8ME	3		Intel	OHD hics		(with the function of Power Delivery and DisplayPort), HDMI 1.4b, Ethernet extension connector, nano-SIM card slot (WWAN models),			
	i7-107	10U (12	1.1 0	3Hz 4.7	GHz 12M	В		Giap	711103		headphone / microphone combo jack, side docking connector, security keyhole			
Graphics	suppo suppo	rts exte rts thre	rnal digita e indepen	ıl monito dent dis	r via HDN plays;	ohics in prod MI or USB	Type-C™		,		Monitor cabl Bundled Accy	* Depending on many factors, actual data transfer speed may be lower than theoretical speed Optional: Lenovo HDMI to VGA Monitor Adapter Optional: ThinkPad Ethernte Extension Adapter Gen 2			
					`	3 Type-C);	4096x2	160@24	Hz (HL	MI)	Camera (optional	One of the following, configurable by model: HD720p camera with ThinkShutter camera privacy, fixed focus			
Chipset Memory			stem on C / 2133MF			dered to sy					Audio support	 IR camera and HD720p camera with ThinkShutter camera privacy, fixed focus HD Audio, Realtek® ALC1012L codec, 			
Display	Size	Res	olution	Туре	Surface	Brightness	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle		Stereo speakers, 2W x 2, 0.8W x 2, Dolby® Audio™ Atmos / 4 array 360-degree far-field microphones, headphone / microphone combo jack			
	14.0"	FHD (1 Low Po	920x1080) wer	IPS	Glossy	380 nits	16:9	800:1	72%	170°	Keyboard UltraNav™	6-row, spill-resistant, multimedia Fn keys, LED backlight TrackPoint® pointing device and buttonless Glass surface multi-touch touchpad			
		FHD (1	920x1080)								Security	Power-on password, supervisor password, system management password, hard disk password			
	14.0"	Guard	d Privacy	IPS	Glossy	380 nits	16:9	1000:1	72%	170°	Security chip System Mgt	Discrete TPM 2.0 TCG Certified Optional: Intel vPro Technology			
	14.0"	WQHD (2560x	440)	IPS	Glossy	280 nits	16:9	800:1	72%	170°		er Touch style match on chip fingerprint reader on the palm rest Optional: Near Field Communication			
	14.0"	UHD (3 Dolby V HDR40		IPS	Glossy	470 nits	16:9	1400:1	90%	170°	Battery Max battery life	Integrated Li-Ion 51Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W USB Type-C AC adapter MobileMark® 2014: 18.1 hrs			
					(anti-refl	lection), AS	S (anti-s	mudge),			AC adapter	* Battery life varies significantly with settings, usage, & other factors 45W or 65W USB Type-C AC adapter			
Multi-touch Hinge			inger ges 60 degree								G-sensor	3D accelerometer			
Convert-mode Pen	Laptor	o, tent, :	stand, and	tablet	or multi-to	ouch displa	y, on-bo	ard rech	argeab	le	Gyroscope GPS	3D gyrometer GPS function is integrated into WWAN module			
Storage	• M.2	2280 S	wing, confi SD / SATA SD / PCI	6.0Gb	's) x 4	-				Preload	One of the following, configurable by model: • Windows® 10 Pro 64 • Windows 10 Home 64			
	 Intel 	Optan		ry H10 v	vith Solid	State Stor	age,				Limited warranty	One of the following, configurable by model: • 1-year depot repair service			
Optical	None		_								_	1-year depot with 2-year planar			
Ethernet	Native Intel Ethernet Connection I1219-LM (<i>vPro</i>) or I1219-V (<i>Non-vPro</i>) via bundled or optional ThinkPad Ethernet Extension Adapter Gen 2										Mil-Spec test	3-year/1-yr battery depot repair service MIL-STD-810G military testing			
WLAN Bluetooth™	Intel W Blueto	/ireless oth 5.0	AC 9560 wireless,	Wi-Fi 2 integrat	x2 802.11 ed in Wi-F	1ac + Bluet Fi + Blueto	tooth 5.0	M.2 ca	rd er		Environment	EPEAT™ Gold; ENERGY STAR® 7.1; RoHS-compliant			
WWAN (optional)											\dashv				
SIM card (opt)	IntegInteg	grated N grated N	Nobile Bro Nobile Bro	adband adband	4G LTE-	A, Fibocom A, Fibocom E (US) SIM	1 L860-G			Л.2 card					
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ThinkPad X380 Yoga Platform Specifications

Processor					7 Processor			Dimensions	<i>WxDxH:</i> 12.34" x 8.75" x 0.72"; 313.5mm x 222.2mm x 18.2mm		
	Processor Number	# of	# of Threads		Max Turbo Frequency Cac	ne Memory Types	Processor Graphics	Weight Case color	Starting at 3.17 lb (1.43kg) Black or silver		
	i3-8130U	2	4	2.2 GHz	3.4 GHz 4M	3	Ciapilics	Case Material	Carbon-Fiber Hybrid		
	i5-8250U			1.6 GHz	3.4 GHz 6M		Intel UHD		er Optional: Smart card reader (mutually exclusive with NFC)		
	i5-8350U	4	8	1.7 GHz	3.6 GHz 6M		Graphics 620	Media reader Ports	One microSD card slot (microSD, microSDHC, microSDXC), UHS-I Two USB 3.1 Gen 1 (one Always On), Ethernet extension connector,		
	i7-8550U i7-8650U	-		1.8 GHz 1.9 GHz	4.0 GHz 8M 4.2 GHz 8M			1 0113	one USB 3.1 Type-C Gen 2 / Thunderbolt 3, HDMI 1.4b, microSD card reader,		
						5		_	nano-SIM card slot (WWAN models), headphone / microphone combo jack		
Graphics	Intel UHD	Graph	iics 620 i	n processoi	r only; HDMI or USB	Type-C:		WiGig dock	* Depending on many factors, actual data transfer speed may be lower than theoretical speed None		
	supports t	hree ir	ndepende	ent displays	;			Monitor cable	USB-C to VGA: Lenovo USB-C to VGA Plus Power Adapter		
-					• • • • •	4096x2160@3	0Hz (HDMI)	(optional)	USB-C to DP: Lenovo USB-C to DisplayPort Adapter HDMI to VGA: Lenovo HDMI to VGA Monitor Adapter		
Chipset	Intel SoC	(Syste	m on Ch	ip) platform	ldarad ta ayata	mboord no oo	drata	Camera	One of the following, configurable by model:		
Memory		16GB / 2400MHz DDR4 / soldered to systemboard, no sockets m clocks down for processors with lower memory controller						Camera	720p: HD720p camera, fixed focus		
Display				<u> </u>	LED backlight			Audio support	IR & 720p: IR camera and HD720p camera, fixed focus		
	300 nits, 1	6:9 as	pect ratio	o, 800:1 cor	ntrast ratio, 170	o viewing angle			HD Audio, Conexant® CX11771 codec / stereo speakers, 2W x 2 / dual array microphone, headphone / microphone combo jack		
Multi-touch	Supports 1				i-reflection), A	3 (anti-smudge)	,	Keyboard	6-row, spill-resistant, multimedia Fn keys, LED backlight		
Hinge	Yoga hinge	e, 360	degree					UltraNav™	TrackPoint® pointing device and 3+2 buttons Mylar surface multi-touch click pad		
Convert-mode Pen	Laptop, ter	nt, stai	nd, yoga ro, active	and tablet	lti-touch dienle	y, on-board rec	hargeable	Security	Power-on password, hard disk password, supervisor password, security keyhole		
Storage					g. xxxG SSD)	ly, on-board rec	nargeable	Security chip System Mat (opt)	Discrete TPM 2.0 TCG Certified Intel vPro Technology r Optional: Touch style match on chip fingerprint reader on the palm rest		
· ·	Some: M.	2 SSD	/ PCle N	VMe, PCIe	3.0 x 4, 32Gb	/s (e.g. xxxG S	SD PCIe NVMe)	Fingerprint reader NFC (optional) Battery Max battery life			
Optical Optane Memory	None None								Near Field Communication (mutually exclusive with smart card reader)		
Ethernet		al Etha	rnot Con	nootion IO1	0 V (Non vPro) or I219-LM (<i>v</i>	Dro\		Li-lon 51Wh battery MobileMark® 2014: 13.6 hrs		
Ememer				nection iz i) OI 12 19-LIVI (VI	-10)		* Battery life varies significantly with settings, usage, & other factors		
WLAN	Intel Dual	Band \	Wireless-	AC 8265, W	Vi-Fi 2x2 802.1	1ac + Bluetooth	4.1, M.2 card	AC adapter	45W or 65W AC adapter (slim tip), 45W or 65W USB Type-C AC adapter		
						BT4.1 by Windo		Light sensor G-sensor/	Ambient Light Sensor 3D accelerometer and 3D magnetometer		
Bluetooth™						oth combo adap	oter	eCompass	3D compass		
WWAN (optional)					≣, 8), M.2 card (E	MEA only)		Gyroscope	3D gyrometer		
SIM card (opt)	Nano-SIM			JIII LOSU-LL	o), IVI.2 Card (L	VILA OIIIy)		Preload	Some: Windows® 10 Home 64		
() /								Lineite el commune et c	Some: Windows 10 Pro 64		
								Limited warranty	One of the following, configurable by model: • 1-vear depot repair service		
									1-year depot with 2-year planar		
								1.0	3-year/1-yr battery depot repair service		
								Mil-Spec test	MIL-STD-810G military testing		
								Environment	EPEAT™ Gold; ENERGY STAR®; RoHS-compliant		

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ThinkPad X390 Yoga Platform Specifications

Processor	8th Generation Intel® Core™ i5 / i7 Processor	Smart card reade	rOptional: Smart card reader		
	Processor H of H of Base Max Turbo Cache Memory Types Processor Graphics	Media reader Ports	MicroSD card reader, in the combo slot with nano-SIM card Two USB 3.1 Gen 1 (one Always On),		
	Number Cores Threads Frequency Frequency Cache Memory Types Graphics i5-8265U 4 8 1.6 GHz 3.9 GHz 6MB	FOITS	one USB 3.1 Type-C Gen 1 (with the function of Power Delivery and Display Port), one USB 3.1 Type-C Gen 2 / Thunderbolt 3 (with the function of PD and DP),		
	15-836511 4 8 1.6 GHz 4.1 GHz 6MB		one USB 3.1 Type-C Gen 2 / Thunderbolt 3 (with the function of PD and DP), HDMI 1.4b, Ethernet extension connector,		
	i7-8565U 4 8 1.8 GHz 4.6 GHz 8MB DDR4-2400 Graphics 620		combo slot of nano-SIM card (WWAN models) and microSD card reader,		
	i7-8665U 4 8 1.9 GHz 4.8 GHz 8MB		headphone / microphone combo jack, optional smart card reader,		
Graphics	Intel UHD Graphics 620 in processor only;	1	side docking connector, security keyhole * Depending on many factors, actual data transfer speed may be lower than theoretical speed		
	supports external digital monitor via HDMI or USB Type-C; supports three independent displays;	Monitor cable	USB-C to HDMI: Lenovo USB-C to HDMI Adapter		
	Max resolution: 4096x2304@60Hz (USB Type-C); 4096x2160@24Hz (HDMI)	(optional)	USB-C to VGA: Lenovo USB-C to VGA Adapter USB-C to DP: Lenovo USB-C to DisplayPort Adapter		
Chipset	Intel SoC (System on Chip) platform	Bundled Accy	Optional: ThinkPad Ethernet Extension Adapter Gen 2		
Memory	8GB or 16GB / 2400MHz DDR4 / soldered to systemboard, no sockets * Installed memory is actually 2666MHz but run at 2400MHz due to Intel limitation	Camera	One of the following, configurable by model: • HD720p camera, with ThinkShutter camera privacy, fixed focus		
Display	13.3" (337.8mm) FHD (1920x1080), LED backlight, IPS, Glossy, 270 nits,	1	IR camera and HD720p camera, with ThinkShutter camera privacy, fixed focus		
	16:9 aspect ratio, 800:1 contrast ratio, Color Gamut 72%, 170° viewing angle, capacitive-type multi-touch, AR (anti-reflection), AS (anti-smudge)	Audio support	HD Audio, Realtek® ALC3287 codec / stereo speakers, 2W x 2, Dolby® Audio™ Premium / dual array microphone, headphone / microphone combo jack		
Multi-touch	supports 10-finger gesture	Keyboard	6-row, spill-resistant, multimedia Fn keys, LED backlight		
Hinge Convert-mode	Yoga hinge, 360 degree Laptop, tent, stand and tablet	UltraNav™	FrackPoint® pointing device and buttonless Mylar surface multi-touch touchpad		
Pen	ThinkPad Pen Pro, active pen for multi-touch display, on-board rechargeable	Security	Power-on password, supervisor password, system management password,		
Storage	• M.2 2280 SSD / SATA 6.0Gb/s	Security chip	hard disk password, security keyhole Discrete TPM 2.0 TCG Certified		
	 M.2 2280 SSD / PCIe NVMe, PCIe 3.0 x 4 M.2 2242 SSD / PCIe NVMe, PCIe 3.0 x 2 	System Mat (opt)	Intel vPro Technology		
	 Intel Optane Memory H10 with Solid State Storage, 	Fingerprint reade NFC (optional)	rTouch style match on chip fingerprint reader on the palm rest Near Field Communication		
Ontana TM mamari	M.2 2280, PCIe NVMe 3.0 x 4 Optional: Intel Optane Memory H10	Battery	Integrated Li-ion 50Wh battery, supports Rapid Charge (charge up to 80% in 1hr)		
Optical	None		with 65W USB Type-C AC adapter		
Ethernet	Native Intel Ethernet Connection I219-V (Non-vPro) or I219-LM (vPro)	Max battery life	MobileMark® 2014: 14.5 hrs * Battery life varies significantly with settings, usage, & other factors		
	via bundled or optional ThinkPad Ethernet Extension Adapter Gen 2	AC adapter	45W or 65W USB Type-C AC adapter		
WLAN	One of the following, configurable by model: • Intel Wireless-AC 9560, Wi-Fi 2x2 802.11ac + Bluetooth 5.0	Light sensor	None		
	 Intel Wi-Fi 6 AX200, Wi-Fi 2x2 802.11ax + Bluetooth 5.0 	G-sensor Gyroscope	3D accelerometer 3D gyrometer		
Bluetooth™	Bluetooth 5.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter	Preload	Windows® 10 Home 64 or Windows 10 Pro 64		
WWAN (optional)	One of the following, configurable by model: Integrated Mobile Broadband 4G LTE, Fibocom L830-EB,	Limited warranty	One of the following, configurable by model:		
	M.2 card (EMEA only)		1-year depot repair service		
	Integrated Mobile Broadband 4G LTE-A, Fibocom L850-GL, M.2 card For non-WWAN model, it means the model is NOT WWAN upgradable		 1-year depot with 2-year planar 3-year/1-yr battery depot repair service 		
Dimensions	WxDxH: 12.22" x 8.62" x 0.63"; 310.4mm x 219mm x 15.95mm		3-year/1-yr battery limited onsite service		
Weight	Starting at 2.85 lb (1.29kg)	Mil-Spec test	MIL-STD-810G military testing		
Case color	Black or silver (Silver is not available in EMEA)	Environment	EPEAT™ Silver; ENERGY STAR® 7.1; RoHS-compliant		
Case Material	Display cover. Carbon-Fiber Hybrid Bottom: Carbon-Fiber Hybrid				
			Langua		

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ThinkPad Yoga 11e (5th Gen) Platform Specifications

Processor	7th Generation Intel® Core™ m / i5 Processor, Intel Celeron® processor, or Intel Pentium® Silver processor								Dimensions		
	Processor Number	# of Cores	# of Threads	Base Frequency	Burst Frequency	Cache	Memory Controller	Processor Graphics	Case material	Black Display cover: PC/ABS+GF; Bottom: PC/ABS plastic	
	m3-7Y30	2		1.0 GHz	2.6 GHz	4MB	LPDDR3-1866	Intel HD Graphics	Media reader Ports	MicroSD card reader Two USB 3.1 Gen 1, one USB 3.1 Type-C Gen 1, HDMI1.4,	
	i5-7Y54			1.2 GHz	3.2 GHz	4MB	LI DDI 13-1000	615	FOILS	Ethernet (RJ-45), headphone / microphone combo jack,	
	Cel N4100		4	1.1 GHz	2.4 GHz	4MB	DDD 4 0 400	Intel UHD Graphics 600		microSD card reader, security keyhole * Depending on many factors, actual data transfer speed may be lower than theoretical speed	
	Pen N5000	4		1.1 GHz	2.7 GHz	4MB	DDR4-2400	Intel UHD Graphics 605	Control buttons	Power button, volume control button	
Graphics	Intol UD C	rophic	0 61E I	ntal LIUD (Prophico 6	00 01	20E in process		Camera	One of the following, configurable by model:	
Graphics	Intel HD Graphics 615, Intel UHD Graphics 600 or 605 in processor, supports external digital monitor via HDMI or USB Type-C; supports dual independent display; Max resolution: 3840x2160@60Hz (USB Type-C); 4096x2160@30Hz (HDMI)								Audio support	720p: HD720p resolution, low light sensitive, fixed focus World facing: Rear camera, 5MP resolution, auto focuss HD Audio, Realtek® ALC3287 codec Dolby Audio / stereo speakers, 2W x 2 / monaural microphone, headphone / microphone combo jack	
Chipset Memory	Intel SoC (System on Chip) platform 4GB or 8GB / 1866MHz LPDDR3 or 2400MHz DDR4 /								Keyboard UltraNav™	6-row, multimedia Fn keys Two buttons click pad below keyboard, multi-touch	
Display MultiTouch	250 nits, 1 Capacitive	6:9 as	HD (1360 pect rati multi-tou	6x768), an io, 800:1 c	ti-glare, LE ontrast rat	io, 170	klight, IPS ° viewing ang	le	Security Security chip System Mgt (opt) Fingerprint reader		
Hinge Convertible mode Pen	Yoga hinge Laptop, ter Optional:	nt. sta	nd and t	ablet Pro, batteı	ries requir	ed, on-	board garage		Battery Max battery life	Integrated Li-lon 42Wh battery MobileMark® 2014: 12 hrs * Battery life varies significantly with settings, usage, & other factors	
Storage	eMMC flas								AC adapter	45W or 65W slim tip AC adapter or USB Type-C AC adapter	
Optical	M.2 SSD / None	PCIe	NVMe,	PCIe 3.0 x	2, 16Gb/s	; 			Preload	Some: Windows® 10 Home 64 Some: Windows 10 Pro 64	
Ethernet	Realtek R					Conne	ction		Limited warranty	One of the following, configurable by model:	
WLAN	One of the following, configurable by model: Intel Wireless-AC 9260, Wi-Fi 2x2 802.11ac + Bluetooth 5.0, M.2 card Intel Wireless-AC 9560, Wi-Fi 2x2 802.11ac + Bluetooth 5.0, M.2 card									1-year depot repair service3-year depot repair service	
Bluetooth™							etooth 5.0, M. combo adapte		Mil-Spec test	MIL-STD-810G military testing	
WWAN	None						· ·		Environment	EPEAT™ Gold; ENERGY STAR® 6.1; RoHS-compliant	

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If Lenovo determines your product problem is covered by the product warranty and cannot be resolved over the telephone, a technician will be dispatched to arrive onsite, typically the next day.

International Warranty Service (IWS): PC repair coverage for customers who require a critical warranty repair while travelling internationally. Visit www.lenovo.com/internationalwarranty for details. Visit www.lenovo.com/warranty for Lenovo Warranty Services terms and conditions for complete details and restrictions.

Included software: may differ from its retail version (if available), and may not include user manuals or all program functionality. Software license agreements may apply.

Battery life: Battery life (and recharge times) will vary based on many factors including screen brightness, applications, features, power management, battery conditioning, and other customer preferences.

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