# **PSREF**

# ThinkPad Tablets



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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.

## February 24, 2021 - Version 573

## Additions in this update

► New product(s)
None

► Spec updated
ThinkPad X12 Detachable

## Withdrawals in this update

► Withdrawn product(s)
None



## **PERFORMANCE**

## **Processor**

#### **Processor Family**

8th generation Intel® Core™ i5 / i7 Processor

#### **Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-8250U	4	8	1.6GHz	3.4GHz	6MB	LPDDR3-2133	Intel UHD Graphics 620
Core i5-8350U	4	8	1.7GHz	3.6GHz	6MB	LPDDR3-2133	Intel UHD Graphics 620
Core i7-8550U	4	8	1.8GHz	4.0GHz	8MB	LPDDR3-2133	Intel UHD Graphics 620
Core i7-8650U	4	8	1.9GHz	4.2GHz	8MB	LPDDR3-2133	Intel UHD Graphics 620

## **Operating System**

- Windows® 10 Home 64
- Windows 10 Pro 64
- No operating system

## **Graphics**

Graphics	Туре	Memory	Key Features
Intel UHD Graphics 620	Integrated	Shared	DirectX® 12

## **Chipset**

Intel SoC (System on Chip) platform

## **Memory**

## **Memory Type**

LPDDR3-2133

## **Storage**

## **Storage Support**

One drive, up to 1TB M.2 2280 SSD

## **Storage Type**

Disk Type	Interface	RPM	Security
M.2 2280 SSD	SATA 6Gb/s	-	-
M.2 2280 SSD	SATA 6Gb/s	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

## **Removable Storage**

#### **Card Reader**

- MicroSD card slot (WiFi model)
- Nano-SIM + microSD card slot (WWAN model)

## Multi-Media

## Speakers

Stereo speakers, 1W x2

#### Microphone

Dual array microphone

#### Camera

- Front 2.0-megapixel, fixed focus + IR; and rear 8.0-megapixel, auto Focus
- Front 2-megapixel, fixed focus; and rear 8.0-megapixel, auto Focus

Notes:



· IR camera is mutually exclusive with NFC

#### Sensor

#### Vibrator

No vibrator

#### Sensors

- Ambient light sensor (ALS)
- Gyroscope sensor
- Accelerometer (G) sensor

## **Battery**

#### **Battery**

Integrated Li-Polymer 42Wh battery

#### **Max Battery Life**

MobileMark® 2014: 9.5 hr

#### Notes:

All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

## **Power Adapter**

- 45W USB-C AC adapter
- 65W USB-C AC adapter

## **DESIGN**

## **Display**

#### Display

Size	Resolution	Touch	Туре	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.0"	QHD+ (3000×2000)	Multi- touch	IPS	400 nits	Anti-reflection, Anti-smudge	3:2	1200:1	-	160°	Corning® Gorilla® Glass

## Notes:

California Electronic Waste Recycling Fee
In California, per state law, Lenovo® charges an electronic waste recycling fee on this covered device at the time of sale
of the product. For more information, go to https://www.calrecycle.ca.gov/Electronics/Consumer

#### **Touchscreen**

Capacitive-type multi-touch, supports 10-point touch

#### Input Device

## Pen

- ThinkPad® Pen Pro, batteries required, on-board garaged
- Lenovo Pen Pro with replaceable battery
- No pen (pen needs to be purchased separately)

#### Mechanical

#### Dimensions (WxDxH)

Models	Dimensions
Tablet	304.1 x 226 x 8.9 mm (11.97 x 8.9 x 0.35 inches)
Tablet with folio keyboard	304.1 x 226 x 14.4 mm (11.97 x 8.9 x 0.57 inches)

## Weight



Models	Weight
Tablet	0.89 kg (1.96 lbs)
Tablet with folio keyboard	Tablet: 0.89 kg (1.96 lbs) Tablet with folio keyboard: 1.27 kg (2.8 lbs)

#### **Case Color**

Black

#### **Case Material**

Magnesium-aluminium

#### Others

Kensington® Security Slot

## **Buttons**

- Reset switch
- · Volume button
- Power button

## CONNECTIVITY

#### **Network**

#### WLAN + Bluetooth™

Intel Dual Band Wireless-AC 8265, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 4.2

#### **WWAN**

- Integrated Mobile Broadband 4G LTE-A, Sierra Wireless EM7430
- Integrated Mobile Broadband 4G LTE-A, Sierra Wireless EM7430C
- Integrated Mobile Broadband 4G LTE-A, Sierra Wireless EM7455
- Not Support

#### SIM Card

No SIM card

## NFC

- Near Field Communication
- Not support

#### Notes:

· NFC is mutually exclusive with IR camera

## **Ports**

### **Standard Ports**

- 2x USB-C 3.1 Gen 1 (support data transfer, Power Delivery and DisplayPort™)
- 1x Pen holder slot
- 1x headphone / microphone combo jack (3.5mm)
- 1x Pogo pin keyboard connector

#### Notes:

· Depending on many factors, actual data transfer speed may be lower than theoretical speed

## **Optional Ports**

- 1x microSD card slot (WiFi model)
- 1x Nano-SIM + microSD card slot (LTE model)

#### Docking

- Thin Keyboard (magnetic detachable)
- ThinkPad USB-C Dock Gen 2
- No docking

### **Monitor Cable**

- Lenovo USB-C to HDMI® Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable



## **SECURITY & PRIVACY**

## **Security**

## **Security Chip**

- · Discrete TPM 2.0, TCG certified
- Disabled (in some regions)

#### **Fingerprint Reader**

Touch style fingerprint reader on display cover

## **MANAGEABILITY**

## **System Management**

- Intel vPro Technology, DASH
- None

## **SERVICE**

## **Warranty**

#### **Base Warranty**

- 1-year depot service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service

## **ACCESSORIES**

## **Bundled Accessories**

- Lenovo USB-C to Ethernet Adapter
- Lenovo USB-C to USB-A Adapter
- · Lenovo USB-C Travel Hub
- None

## **CERTIFICATIONS**

## **Green Certifications**

- EPEAT™ Silver
- GREENGUARD®
- Low Halogen
- · RoHS compliant

## **Other Certifications**

## **Mil-Spec Test**

MIL-STD-810G military test passed









## **PERFORMANCE**

## **Processor**

#### **Processor Family**

11th Generation Intel® Core™ i3 / i5 /i7 Processor

#### **Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3-1110G4	2	4	2.5GHz	3.9GHz	6MB	LPDDR4x-4266	Intel UHD Graphics
Core i5-1130G7	4	8	1.8GHz	4.0GHz	8MB	LPDDR4x-4266	Intel Iris® Xe Graphics
Core i5-1140G7	4	8	1.8GHz	4.2GHz	8MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1160G7	4	8	2.1GHz	4.4GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1180G7	4	8	2.2GHz	4.6GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics

## **Operating System**

- Windows® 10 Home 64
- Windows 10 Pro 64
- No operating system

## **Graphics**

Graphics	Туре	Memory	Key Features	
Intel UHD Graphics	Integrated	Shared	DirectX® 12	
Intel Iris Xe Graphics	Integrated	Shared	DirectX 12	

## **Monitor Support**

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via USB-C (5120x3200@60Hz) or Thunderbolt™ (5120x3200@60Hz)

## **Chipset**

Intel SoC (System on Chip) platform

## **Memory**

## **Memory Type**

LPDDR4x-4266

## Notes:

• 8GB or 16GB LPDDR4x-4266 soldered, dual-channel capable

## **Storage**

#### **Storage Support**

One drive, up to 1TB M.2 2242 SSD

## **Storage Type**

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe NVMe, PCIe 3.0 x4	-	-

## Multi-Media

### **Speakers**

Stereo speakers, Realtek® ALC3306-GRT codec, 1W x2, Dolby® Audio™

#### Microphone

Dual array microphone, 360° far-field for Cortana, near-field for Alexa

#### Camora

5.0-megapixel front user-facing Hybrid RGB/IR camera with webcam privacy shutter, fixed focus; 8.0-megapixel rear world-facing, auto focus



#### Sensor

#### **Vibrator**

No vibrator

#### Sensors

- · Gyroscope sensor
- Hall sensor
- Inclinometer sensor
- Accelerometer (G) sensor
- Proximity sensor (WWAN model)

## **Battery**

#### **Battery**

Integrated Li-Polymer 42Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

#### **Max Battery Life**

MobileMark® 2018: 10.36 hr JEITA 2.0: 12.42 hr

#### Notes:

• All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

#### **Charging Time**

In operation: 2.0 hr Off ~80%: 0.83 hr Off ~100%: 2.0 hr

## **Power Adapter**

- 45W USB-C AC adapter
- 65W USB-C AC adapter
- 65W USB-C slim AC adapter

### **DESIGN**

## **Display**

#### **Display**

Size	Resolution	Touch	Туре	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
ロンスツェ	FHD+ (1920x1280)	Multi- touch	IPS	400 nits	Anti-reflection, Anti-smudge	3:2	1500:1	100% sRGB	178°	Corning® Gorilla® Glass 5

#### Notes:

California Electronic Waste Recycling Fee
 In California, per state law, Lenovo® charges an electronic waste recycling fee on this covered device at the time of sale
 of the product. For more information, go to https://www.calrecycle.ca.gov/Electronics/Consumer

#### **Touchscreen**

GF2 Direct Bonding, capacitive-type multi-touch, supports 10-point touch

## **Input Device**

## Pen

- Lenovo Precision Pen, magnetically attached to the system
- Lenovo Digital Pen with replaceable battery
- Lenovo Digital Pen without replaceable battery
- No pen (pen needs to be purchased separately)



## Mechanical

## Dimensions (WxDxH)

Models	Dimensions
Tablet	283.3 x 203.5 x 8.8 mm (11.15 x 8.01 x 0.34 inches)
Folio keyboard	283.3 x 217.8 x 5.7 mm (11.15 x 8.57 x 0.22 inches)

## Weight

Models	Weight
Tablet	760 g (1.67 lbs)
Folio keyboard	340 g (0.75 lbs)

#### **Case Color**

Black

#### **Case Material**

Magnesium-aluminium

#### Notes:

• Surface treatment: Peachskin paint

#### **Others**

- Hinge locking: 170°
- Kensington® Security Slot

#### Ruttons

- Volume button
- Power button

## CONNECTIVITY

## **Network**

#### WLAN + Bluetooth™

Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, MU-MIMO

#### **WWAN**

- Integrated Mobile Broadband 4G LTE-A, CAT9, Fibocom L850-GL, M.2 card
- Not Support

#### SIM Card

- No SIM card
- Nano-SIM card slot for WWAN (eSIM support: Gemalto)

#### NFC

- Near Field Communication
- Not support

## **WIFI Direct**

Support

#### **WIFI Display**

Support

#### **Ports**

## Standard Ports

- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4)
- 1x Thunderbolt 4 / USB4™ 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort 1.4)
- 1x Nano-SIM card slot
- 1x headphone / microphone combo jack (3.5mm)
- 1x Pogo pin connector (8-point)

Notes:



· Depending on many factors, actual data transfer speed may be lower than theoretical speed

#### **Docking**

- ThinkPad® X12 Folio Keyboard with touchpad (Pogo Pin, Detachable), 3-level backlight
- No docking

## **Monitor Cable**

- Lenovo USB-C to HDMI® Adapter
- Lenovo USB-C to VGA Adapter
- · No monitor cable

## **SECURITY & PRIVACY**

## **Security**

#### **Security Chip**

- · Discrete TPM 2.0, TCG certified
- Disabled (in some regions)

#### **Fingerprint Reader**

- · Touch style fingerprint reader on folio keyboard, match-on-chip
- · No fingerprint reader

#### **BIOS Security**

- · Power-on password
- · Supervisor password
- · System management password
- · Hard disk password
- · Self-healing BIOS

## MANAGEABILITY

## **System Management**

- · Intel vPro Technology, DASH
- None

## **SERVICE**

## Warranty

## Base Warranty

- 1-year depot service
- 1-year depot with 2-year system board service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

## **ACCESSORIES**

## **Bundled Accessories**

- Lenovo USB-C to Ethernet Adapter
- None

## **CERTIFICATIONS**

## **Green Certifications**

- EPEAT™ Gold (tablet mode)
- EPEAT Silver (notebook mode)

## ThinkPad X12 Detachable



- ENERGY STAR® 8.0
- ErP Lot 3
- FAA Certified
- Low Halogen
- TCO Certified 8.0
- RoHS compliant

## **Other Certifications**

## Mil-Spec Test

MIL-STD-810H military test passed























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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.

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**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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