# ThinkPad X13 Gen 2 (Intel)

# 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 i3-1115G4	2	4	3.0GHz	4.1GHz	6MB	LPDDR4x-3733	Intel UHD Graphics
Core i5-1145G7	4	8	2.6GHz	4.4GHz	8MB	LPDDR4x-4266	Intel Iris® Xe Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics
Core i7-1185G7	4	8	3.0GHz	4.8GHz	12MB	LPDDR4x-4266	Intel Iris Xe Graphics

# **Operating System**

### **Operating System**

- Windows<sup>®</sup> 10 Home 64
- Windows 10 Pro 64
- Linux
- Ubuntu Linux
- No operating system

## **Graphics**

#### **Graphics**<sup>[1]</sup>

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

Notes:

1. Intel Iris Xe Graphics is not available for Intel Core i3 models

## **Monitor Support**

#### Monitor Support<sup>[1]</sup>

Supports up to 4 independent displays via native display and 3 external monitors; supports external monitors via Thunderbolt™ (5K@60Hz) or HDMI® (up to 4K@60Hz)

Notes:

1. Refresh rates >60hz also supported, however max resolution will be limited

# Chipset

### Chipset

Intel SoC (System on Chip) platform

## Memory

Memory Type<sup>[1]</sup>

LPDDR4x-4266

#### **Memory Slots**

Memory soldered to systemboard, no slots, dual-channel

#### Max Memory<sup>[2]</sup>

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Notes:

Lenovo

- 1. Installed memory is actually 4266MHz, but may run at 3733MHz depending on the memory support capability of processor
- 2. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the technology develops.

## Storage

#### Storage Support

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

#### Storage Type

Disk Type	Interface	RPM	Offering	Security
M.2 2280 SSD	PCIe NVMe, PCIe x4	-	-	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	-	Opal2

# **Removable Storage**

Optical

None

#### **Card Reader**

No card reader

## **Multi-Media**

#### **Audio Chip**

High Definition (HD) Audio, Realtek® ALC3287 codec

#### Speakers

Stereo speakers, 2W x2, Dolby<sup>®</sup> Audio<sup>™</sup>

#### Microphone

- Dual array microphone, far-field
- No microphone

#### Camera

- 720p, with privacy shutter, fixed focus
- IR & 1080p, with privacy shutter, fixed focus
- No camera

## Battery

#### Battery

- Integrated Li-Polymer 41Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter
- Integrated Li-Polymer 54.7Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

#### Max Battery Life<sup>[1]</sup>

MobileMark® 2018: 14.5 hr JEITA 2.0: 24 hr

#### Notes:

# **Power Adapter**

#### **Power Adapter**

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

# DESIGN

# Display

Display<sup>[1]</sup>

<sup>1.</sup> 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.

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Lenovo

Size	Resolution	Touch	Туре	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3″	WUXGA (1920x1200)	None	IPS	300 nits	Anti- glare	16:10	1000:1	72% NTSC	170°	-
13.3″	WUXGA (1920x1200)	Multi- touch	IPS	300 nits	Anti- glare	16:10	1000:1	72% NTSC	170°	-
13.3″	WQXGA (2560x1600)	None	IPS	400 nits	Anti- glare	16:10	1200:1	100% sRGB	170°	Low power, low blue light

#### Touchscreen

• On-cell touch, supports 10-point touch

• Non-touch

Notes:

1. 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

## **Input Device**

#### Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls

#### **Keyboard Backlight**

- LED backlight
- Not support

#### UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

## Mechanical

### Dimensions (WxDxH)

Models	Dimensions				
Aluminium (top), aluminium (bottom) models	305.8 x 217.89 x 18.06 mm (12.04 x 8.58 x 0.71 inches)				
PPS (top), aluminium (bottom) models	305.8 x 217.06 x 18.19 mm (12.04 x 8.55 x 0.72 inches)				
Carbon fiber (top), aluminium (bottom) models	305.8 x 217.39 x 18.97 mm (12.04 x 8.56 x 0.75 inches)				

## Weight

Models	Weight
Models with WQXGA display, 41Wh battery, and black PPS top cover	1.21 kg (2.67 lbs)
Models with WQXGA display, 41Wh battery, and storm grey top cover	1.28 kg (2.82 lbs)
Models with WQXGA display, 54.7Wh battery, and black PPS top cover	1.26 kg (2.78 lbs)
Models with WQXGA display, 54.7Wh battery, and storm grey top cover	1.34 kg (2.94 lbs)
Models with WUXGA display, 41Wh battery, and black PPS top cover	1.25 kg (2.77 lbs)
Models with WUXGA display, 41Wh battery, and black carbon fiber top cover	1.19 kg (2.62 lbs)
Models with WUXGA display, 41Wh battery, and storm grey top cover	1.33 kg (2.93 lbs)
Models with WUXGA display, 54.7Wh battery, and black PPS top cover	1.31 kg (2.88 lbs)
Models with WUXGA display, 54.7Wh battery, and black carbon fiber top cover	1.26 kg (2.77 lbs)
Models with WUXGA display, 54.7Wh battery, and storm grey top cover	1.38 kg (3.04 lbs)

#### Case Color

- Storm grey
- Villi black

#### **Case Material**

Carbon Fiber, PPS or aluminium (top), aluminium (bottom)

# CONNECTIVITY

## Network

### **Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), RJ45 via optional ThinkPad<sup>®</sup> Ethernet Extension Adapter Gen 2
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), RJ45 via optional ThinkPad Ethernet Extension Adapter Gen 2

#### WLAN + Bluetooth<sup>™[1]</sup>

- Intel Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Intel Wi-Fi 6E AX210, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

#### WWAN

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE, Quectel EM12OR-GL, M.2 card, with embedded eSIM functionality
- Qualcomm<sup>®</sup> Snapdragon<sup>™</sup> X55 5G Modem M.2 card RF System with embedded eSIM functionality
- Not Support

#### SIM Card

No SIM card

#### NFC

- Near Field Communication
- Not support

Notes:

 Intel WiFi 6 full features might be limited by country level restrictions 6GHz Wi-Fi 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi 6E, and the regional regulatory certifications & spectrum allocation Bluetooth 5.2 is supported with driver version 22.30 and later

## **Ports**

### Standard Ports<sup>[1]</sup>

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x Thunderbolt 4 / USB4<sup>™</sup> 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort<sup>™</sup> 1.4a)
- 1x HDMI 2.0
- 1x headphone / microphone combo jack (3.5mm)
- 1x side docking connector

#### **Optional Ports**

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN models)

Notes:

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

# **Monitor Cable**

#### **Monitor Cable**

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- No monitor cable

# **SECURITY & PRIVACY**

# Security

## Security Chip

- Discrete TPM 2.0, TCG certified
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

## Physical Locks

PSREF Product Specifications Reference

## Kensington<sup>®</sup> Nano Security Slot

### Smart Card Reader

- Smart card reader
- No smart card reader

### **Fingerprint Reader**

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

### **BIOS Security**

- Power-on password
- Supervisor password
- NVMe password
- Self-healing BIOS

#### **Other Security**

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello

# MANAGEABILITY

## System Management

### System Management

- Intel vPro Technology, DASH
- None

# SERVICE

# Warranty

## **Base Warranty**

- 1-year depot service
- 1-year limited onsite 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**

## **Bundled Accessories**

- ThinkPad Ethernet Extension Adapter Gen 2
- None

# CERTIFICATIONS

# **Green Certifications**

## Green Certifications

- EPEAT<sup>™</sup> Gold
- ENERGY STAR<sup>®</sup> 8.0
- <u>T</u>CO
- RoHS compliant

# **Other Certifications**

Mil-Spec Test

Work in progress

PSREF Product Specifications Reference

## Other Certifications<sup>[1]</sup>

(Optional) Intel Evo Platform

Notes:

1. Intel EVO<sup>™™</sup> is NOT available for the models with i3 processor, 41Wh battery, or 128GB storage

