## Lenovo.

## Lenovo ThinkPad T480 Intel® Core™ i5 i5-8350U Laptop 35,6 cm (14") Full HD 8 GB DDR4-SDRAM 256 GB SSD Wi-Fi 5 (802.11ac) Windows 10 Pro Black

Brand : Lenovo Product family: ThinkPad Product code: 20L5004LUS

Product name: ThinkPad T480

Intel Core i5-8350U (4C, 1.7 / 3.6GHz, 6MB), 8GBx1, 256GB SSD M.2 PCle NVMe Opal2, 35.56 cm (14") FHD (1920x1080) IPS, Integrated Intel UHD Graphics 620, Intel 8265 ac, 2x2 + BT4.1, Fibocom L850-GL, Windows 10 Pro 64

Lenovo ThinkPad T480. Product type: Laptop, Form factor: Clamshell. Processor family: Intel® Core™ i5, Processor model: i5-8350U, Processor frequency: 1,7 GHz. Display diagonal: 35,6 cm (14"), HD type: Full HD, Display resolution: 1920 x 1080 pixels. Internal memory: 8 GB, Internal memory type: DDR4-SDRAM. Total storage capacity: 256 GB, Storage media: SSD. Mobile network generation: 4G. Operating system installed: Windows 10 Pro. Product colour: Black





Design		Ports & interfaces	
Product type *	Laptop	HDMI ports quantity *	1
Product colour *	Black	HDMI version	1.4b
Form factor *	Clamshell	Headphone outputs	1
Housing material	FRP (Fiber Reinforced Plastic), Magnesium	Microphone in	×
Market positioning	Business	Combo headphone/mic port	<b>✓</b>
Display		USB Sleep-and-Charge USB Sleep-and-Charge ports	1
Display diagonal *	35,6 cm (14")	Performance	-
Display resolution *	1920 x 1080 pixels		
Touchscreen *	×	Motherboard chipset	Intel SoC
HD type	Full HD	Keyboard	
Panel type	IPS	Pointing device	ThinkPad UltraNav
LED backlight	✓	Numeric keypad *	×
Native aspect ratio	16:9	Keyboard backlit	✓
Display surface	Matt	Spill-resistant keyboard	<b>✓</b>
Display brightness	250 cd/m <sup>2</sup>	Windows keys	<b>✓</b>
Processor		Software	
Processor manufacturer *	Intel		
		Operating system architecture	64-bit
Processor family *	Intel® Core™ i5	Operating system architecture Operating system installed *	64-bit Windows 10 Pro
Processor family * Processor generation	Intel® Core™ i5 8th gen Intel® Core™ i5	Operating system installed *	<del></del>
Processor family * Processor generation Processor model *	Intel® Core™ i5 8th gen Intel® Core™ i5 i5-8350U	Operating system installed *  Processor special features	<del></del>
Processor family * Processor generation	Intel® Core™ i5 8th gen Intel® Core™ i5	Operating system installed *	<del></del>
Processor family * Processor generation Processor model * Processor cores	Intel® Core™ i5 8th gen Intel® Core™ i5 i5-8350U 4	Operating system installed *  Processor special features Intel® My WiFi Technology (Intel®	Windows 10 Pro
Processor family * Processor generation Processor model * Processor cores Processor threads Processor boost frequency Processor frequency *	Intel® Core™ i5 8th gen Intel® Core™ i5 i5-8350U 4 8 3,6 GHz 1,7 GHz	Operating system installed *  Processor special features  Intel® My WiFi Technology (Intel® MWT)	Windows 10 Pro
Processor family * Processor generation Processor model * Processor cores Processor threads Processor boost frequency	Intel® Core™ i5 8th gen Intel® Core™ i5 i5-8350U 4 8 3,6 GHz	Operating system installed *  Processor special features Intel® My WiFi Technology (Intel® MWT) Intel® Smart Response Technology Intel® Identity Protection Technology (Intel® IPT) Intel® Hyper Threading Technology	Windows 10 Pro
Processor family * Processor generation Processor model * Processor cores Processor threads Processor boost frequency Processor frequency * System bus rate	Intel® Core™ i5 8th gen Intel® Core™ i5 i5-8350U 4 8 3,6 GHz 1,7 GHz 4 GT/s	Operating system installed *  Processor special features Intel® My WiFi Technology (Intel® MWT) Intel® Smart Response Technology Intel® Identity Protection Technology (Intel® IPT) Intel® Hyper Threading Technology (Intel® HT Technology)	Windows 10 Pro
Processor family * Processor generation Processor model * Processor cores Processor threads Processor boost frequency Processor frequency * System bus rate Processor cache	Intel® Core™ i5 8th gen Intel® Core™ i5 i5-8350U 4 8 3,6 GHz 1,7 GHz 4 GT/s 6 MB	Operating system installed *  Processor special features Intel® My WiFi Technology (Intel® MWT) Intel® Smart Response Technology Intel® Identity Protection Technology (Intel® IPT) Intel® Hyper Threading Technology (Intel® HT Technology) Intel® Turbo Boost Technology	Windows 10 Pro
Processor family * Processor generation Processor model * Processor cores Processor threads Processor boost frequency Processor frequency * System bus rate Processor cache Processor cache type Processor socket Processor lithography	Intel® Core™ i5 8th gen Intel® Core™ i5 i5-8350U 4 8 3,6 GHz 1,7 GHz 4 GT/s 6 MB Smart Cache BGA 1356 14 nm	Operating system installed *  Processor special features Intel® My WiFi Technology (Intel® MWT) Intel® Smart Response Technology Intel® Identity Protection Technology (Intel® IPT) Intel® Hyper Threading Technology (Intel® HT Technology)	Windows 10 Pro
Processor family * Processor generation Processor model * Processor cores Processor threads Processor boost frequency Processor frequency * System bus rate Processor cache Processor cache type Processor socket Processor lithography Processor operating modes	Intel® Core™ i5 8th gen Intel® Core™ i5 i5-8350U 4 8 3,6 GHz 1,7 GHz 4 GT/s 6 MB Smart Cache BGA 1356 14 nm 64-bit	Operating system installed *  Processor special features Intel® My WiFi Technology (Intel® MWT) Intel® Smart Response Technology Intel® Identity Protection Technology (Intel® IPT) Intel® Hyper Threading Technology (Intel® HT Technology) Intel® Turbo Boost Technology Enhanced Intel SpeedStep Technology Intel® Clear Video HD Technology	Windows 10 Pro
Processor family * Processor generation Processor model * Processor cores Processor threads Processor boost frequency Processor frequency * System bus rate Processor cache Processor cache type Processor socket Processor lithography Processor operating modes Processor codename	Intel® Core™ i5 8th gen Intel® Core™ i5 i5-8350U 4 8 3,6 GHz 1,7 GHz 4 GT/s 6 MB Smart Cache BGA 1356 14 nm 64-bit Kaby Lake R	Operating system installed *  Processor special features Intel® My WiFi Technology (Intel® MWT) Intel® Smart Response Technology Intel® Identity Protection Technology (Intel® IPT) Intel® Hyper Threading Technology (Intel® HT Technology) Intel® Turbo Boost Technology Enhanced Intel SpeedStep Technology Intel® Clear Video HD Technology (Intel® CVT HD)	Windows 10 Pro
Processor family * Processor generation Processor model * Processor cores Processor threads Processor boost frequency Processor frequency * System bus rate Processor cache Processor cache type Processor socket Processor lithography Processor operating modes Processor codename Bus type	Intel® Core™ i5 8th gen Intel® Core™ i5 i5-8350U 4 8 3,6 GHz 1,7 GHz 4 GT/s 6 MB Smart Cache BGA 1356 14 nm 64-bit Kaby Lake R OPI	Operating system installed *  Processor special features Intel® My WiFi Technology (Intel® MWT) Intel® Smart Response Technology Intel® Identity Protection Technology (Intel® IPT) Intel® Hyper Threading Technology (Intel® HT Technology) Intel® Turbo Boost Technology Enhanced Intel SpeedStep Technology Intel® Clear Video HD Technology (Intel® CVT HD) Intel Clear Video Technology	Windows 10 Pro
Processor family * Processor generation Processor model * Processor cores Processor threads Processor boost frequency Processor frequency * System bus rate Processor cache Processor cache type Processor socket Processor lithography Processor operating modes Processor codename	Intel® Core™ i5 8th gen Intel® Core™ i5 i5-8350U 4 8 3,6 GHz 1,7 GHz 4 GT/s 6 MB Smart Cache BGA 1356 14 nm 64-bit Kaby Lake R	Operating system installed *  Processor special features Intel® My WiFi Technology (Intel® MWT) Intel® Smart Response Technology Intel® Identity Protection Technology (Intel® IPT) Intel® Hyper Threading Technology (Intel® HT Technology) Intel® Turbo Boost Technology Enhanced Intel SpeedStep Technology Intel® Clear Video HD Technology (Intel® CVT HD)	Windows 10 Pro

Processor		Processor special features	
Configurable TDP-up frequency	1,9 GHz	Intel Flex Memory Access	✓
Configurable TDP-up	25 W	Intel® AES New Instructions (Intel®	<b>✓</b>
Configurable TDP-down	10 W	AES-NI)	
Configurable TDP-down frequency	0,8 GHz	Intel Trusted Execution Technology	•
Tjunction	100 °C	Intel Enhanced Halt State	<b>✓</b>
Maximum number of PCI Express lanes	12	Intel VT-x with Extended Page Tables (EPT)	✓
PCI Express slots version	3.0	Intel® Secure Key	<b>✓</b>
PCI Express configurations	1x2+2x1, 1x4, 2x2, 4x1	·	,
ECC supported by processor	×	Intel TSX-NI Intel Stable Image Platform Program	•
Memory		(SIPP)	✓
Internal memory *	8 GB	Intel® OS Guard	1
Internal memory type	DDR4-SDRAM	Intel Software Guard Extensions	/
Memory clock speed	2400 MHz	(Intel SGX)	•
Memory form factor	SO-DIMM	Intel® Clear Video Technology for Mobile Internet Devices (Intel CVT	<b>✓</b>
Memory layout (slots x size)	1 x 8 GB	for MID)	•
Memory slots	2x SO-DIMM	Intel 64	✓
Maximum internal memory *	32 GB	Execute Disable Bit	<b>✓</b>
Storage		Idle States	1
Total storage capacity *	256 GB	Thermal Monitoring Technologies	<b>/</b>
Storage media *	SSD	Processor package size	42 x 24 mm
Number of SSDs installed	1	Supported instruction sets	AVX 2.0, SSE4.1, SSE4.2
SSD capacity	256 GB	Processor code	SR3L9
SSD interface	M.2	CPU configuration (max)	1
Optical drive type *	×	Embedded options available	×
Card reader integrated	✓	Intel Virtualization Technology for	<b>✓</b>
Compatible memory cards	MMC, SD, SDHC, SDXC	Directed I/O (VT-d)	•
Graphics		Intel Identity Protection Technology version	1,00
On-board graphics card *	<b>✓</b>	Intel Smart Response Technology	1.00
On-board graphics card * On-board graphics card family	✓ Intel® UHD Graphics	Intel Smart Response Technology version	1,00
On-board graphics card * On-board graphics card family On-board graphics card model *		version Intel Stable Image Platform Program	1,00
On-board graphics card family	Intel® UHD Graphics Intel® UHD Graphics 620	version Intel Stable Image Platform Program (SIPP) version	1,00
On-board graphics card family On-board graphics card model * On-board graphics card base frequency	Intel® UHD Graphics	version Intel Stable Image Platform Program	1,00 1,00
On-board graphics card family On-board graphics card model * On-board graphics card base frequency On-board graphics card dynamic	Intel® UHD Graphics Intel® UHD Graphics 620	version Intel Stable Image Platform Program (SIPP) version Intel Secure Key Technology version Intel TSX-NI version	1,00 1,00 1,00
On-board graphics card family On-board graphics card model * On-board graphics card base frequency On-board graphics card dynamic frequency (max)	Intel® UHD Graphics Intel® UHD Graphics 620 300 MHz 1100 MHz	version Intel Stable Image Platform Program (SIPP) version Intel Secure Key Technology version Intel TSX-NI version Intel Virtualization Technology (VT-x)	1,00 1,00 1,00
On-board graphics card family On-board graphics card model * On-board graphics card base frequency On-board graphics card dynamic	Intel® UHD Graphics Intel® UHD Graphics 620 300 MHz	version Intel Stable Image Platform Program (SIPP) version Intel Secure Key Technology version Intel TSX-NI version Intel Virtualization Technology (VT-x) Processor ARK ID	1,00 1,00 1,00 ✓ 124969
On-board graphics card family On-board graphics card model * On-board graphics card base frequency On-board graphics card dynamic frequency (max) Maximum on-board graphics card memory On-board graphics card DirectX	Intel® UHD Graphics Intel® UHD Graphics 620 300 MHz 1100 MHz	version Intel Stable Image Platform Program (SIPP) version Intel Secure Key Technology version Intel TSX-NI version Intel Virtualization Technology (VT-x)	1,00 1,00 1,00
On-board graphics card family On-board graphics card model * On-board graphics card base frequency On-board graphics card dynamic frequency (max) Maximum on-board graphics card memory On-board graphics card DirectX version	Intel® UHD Graphics Intel® UHD Graphics 620 300 MHz 1100 MHz 32 GB	version Intel Stable Image Platform Program (SIPP) version Intel Secure Key Technology version Intel TSX-NI version Intel Virtualization Technology (VT-x) Processor ARK ID	1,00 1,00 1,00 ✓ 124969
On-board graphics card family On-board graphics card model * On-board graphics card base frequency On-board graphics card dynamic frequency (max) Maximum on-board graphics card memory On-board graphics card DirectX version On-board graphics card OpenGL version	Intel® UHD Graphics Intel® UHD Graphics 620 300 MHz 1100 MHz 32 GB	version Intel Stable Image Platform Program (SIPP) version Intel Secure Key Technology version Intel TSX-NI version Intel Virtualization Technology (VT-x) Processor ARK ID Conflict-Free processor	1,00 1,00 1,00 ✓ 124969
On-board graphics card family On-board graphics card model * On-board graphics card base frequency On-board graphics card dynamic frequency (max) Maximum on-board graphics card memory On-board graphics card DirectX version On-board graphics card OpenGL	Intel® UHD Graphics Intel® UHD Graphics 620 300 MHz 1100 MHz 32 GB	version Intel Stable Image Platform Program (SIPP) version Intel Secure Key Technology version Intel TSX-NI version Intel Virtualization Technology (VT-x) Processor ARK ID Conflict-Free processor  Battery	1,00 1,00 1,00 ✓ 124969
On-board graphics card family On-board graphics card model * On-board graphics card base frequency On-board graphics card dynamic frequency (max) Maximum on-board graphics card memory On-board graphics card DirectX version On-board graphics card OpenGL version	Intel® UHD Graphics Intel® UHD Graphics 620 300 MHz 1100 MHz 32 GB 12.0 4.4	version Intel Stable Image Platform Program (SIPP) version Intel Secure Key Technology version Intel TSX-NI version Intel Virtualization Technology (VT-x) Processor ARK ID Conflict-Free processor  Battery Battery technology	1,00 1,00 1,00 ✓ 124969
On-board graphics card family On-board graphics card model * On-board graphics card base frequency On-board graphics card dynamic frequency (max) Maximum on-board graphics card memory On-board graphics card DirectX version On-board graphics card OpenGL version On-board graphics card ID	Intel® UHD Graphics Intel® UHD Graphics 620 300 MHz 1100 MHz 32 GB 12.0 4.4	version Intel Stable Image Platform Program (SIPP) version Intel Secure Key Technology version Intel TSX-NI version Intel Virtualization Technology (VT-x) Processor ARK ID Conflict-Free processor  Battery Battery technology  Power	1,00 1,00 1,00 1,00 124969 Lithium-lon (Li-lon) 65 W 50 - 60 Hz
On-board graphics card family On-board graphics card model * On-board graphics card base frequency On-board graphics card dynamic frequency (max) Maximum on-board graphics card memory On-board graphics card DirectX version On-board graphics card OpenGL version On-board graphics card ID  Audio Audio Audio chip Audio system	Intel® UHD Graphics Intel® UHD Graphics 620 300 MHz  1100 MHz  32 GB  12.0  4.4  0x5917  Realtek ALC3287 Dolby Audio Premium	version Intel Stable Image Platform Program (SIPP) version Intel Secure Key Technology version Intel TSX-NI version Intel Virtualization Technology (VT-x) Processor ARK ID Conflict-Free processor  Battery Battery technology  Power AC adapter power	1,00 1,00 1,00  124969  Lithium-lon (Li-lon)
On-board graphics card family On-board graphics card model * On-board graphics card base frequency On-board graphics card dynamic frequency (max) Maximum on-board graphics card memory On-board graphics card DirectX version On-board graphics card OpenGL version On-board graphics card ID  Audio Audio Audio chip Audio system Number of built-in speakers	Intel® UHD Graphics Intel® UHD Graphics 620 300 MHz  1100 MHz  32 GB  12.0  4.4  0x5917  Realtek ALC3287  Dolby Audio Premium 2	version Intel Stable Image Platform Program (SIPP) version Intel Secure Key Technology version Intel TSX-NI version Intel Virtualization Technology (VT-x) Processor ARK ID Conflict-Free processor  Battery Battery technology  Power  AC adapter power AC adapter frequency	1,00 1,00 1,00 1,00 124969 Lithium-lon (Li-lon) 65 W 50 - 60 Hz
On-board graphics card family On-board graphics card model * On-board graphics card base frequency On-board graphics card dynamic frequency (max) Maximum on-board graphics card memory On-board graphics card DirectX version On-board graphics card OpenGL version On-board graphics card ID  Audio Audio Audio chip Audio system Number of built-in speakers Speaker power	Intel® UHD Graphics Intel® UHD Graphics 620 300 MHz  1100 MHz  32 GB  12.0  4.4  0x5917  Realtek ALC3287  Dolby Audio Premium 2 2 W	version Intel Stable Image Platform Program (SIPP) version Intel Secure Key Technology version Intel TSX-NI version Intel Virtualization Technology (VT-x) Processor ARK ID Conflict-Free processor  Battery Battery Battery technology  Power  AC adapter power AC adapter input voltage	1,00 1,00 1,00 1,00 124969 Lithium-lon (Li-lon) 65 W 50 - 60 Hz
On-board graphics card family On-board graphics card model * On-board graphics card base frequency On-board graphics card dynamic frequency (max) Maximum on-board graphics card memory On-board graphics card DirectX version On-board graphics card OpenGL version On-board graphics card ID  Audio Audio Audio chip Audio system Number of built-in speakers	Intel® UHD Graphics Intel® UHD Graphics 620 300 MHz  1100 MHz  32 GB  12.0  4.4  0x5917  Realtek ALC3287  Dolby Audio Premium 2	version Intel Stable Image Platform Program (SIPP) version Intel Secure Key Technology version Intel TSX-NI version Intel Virtualization Technology (VT-x) Processor ARK ID Conflict-Free processor  Battery Battery technology  Power AC adapter power AC adapter frequency AC adapter input voltage  Security	1,00 1,00 1,00  124969  Lithium-lon (Li-lon)  65 W 50 - 60 Hz 100 - 240 V
On-board graphics card family On-board graphics card model * On-board graphics card base frequency On-board graphics card dynamic frequency (max) Maximum on-board graphics card memory On-board graphics card DirectX version On-board graphics card OpenGL version On-board graphics card ID  Audio Audio Audio chip Audio system Number of built-in speakers Speaker power	Intel® UHD Graphics Intel® UHD Graphics 620 300 MHz  1100 MHz  32 GB  12.0  4.4  0x5917  Realtek ALC3287  Dolby Audio Premium 2 2 W	version Intel Stable Image Platform Program (SIPP) version Intel Secure Key Technology version Intel Secure Key Technology version Intel TSX-NI version Intel Virtualization Technology (VT-x) Processor ARK ID Conflict-Free processor  Battery Battery Battery technology  Power  AC adapter power AC adapter frequency AC adapter input voltage  Security Fingerprint reader	1,00 1,00 1,00 1,00  124969  Lithium-lon (Li-lon)  65 W 50 - 60 Hz 100 - 240 V
On-board graphics card family On-board graphics card model * On-board graphics card base frequency On-board graphics card dynamic frequency (max) Maximum on-board graphics card memory On-board graphics card DirectX version On-board graphics card OpenGL version On-board graphics card ID  Audio Audio Audio chip Audio system Number of built-in speakers Speaker power Built-in microphone	Intel® UHD Graphics Intel® UHD Graphics 620 300 MHz  1100 MHz  32 GB  12.0  4.4  0x5917  Realtek ALC3287  Dolby Audio Premium 2 2 W	version Intel Stable Image Platform Program (SIPP) version Intel Secure Key Technology version Intel TSX-NI version Intel Virtualization Technology (VT-x) Processor ARK ID Conflict-Free processor  Battery Battery Battery technology  Power AC adapter power AC adapter frequency AC adapter input voltage  Security Fingerprint reader Trusted Platform Module (TPM)	1,00 1,00 1,00  124969  Lithium-lon (Li-lon)  65 W 50 - 60 Hz 100 - 240 V
On-board graphics card family On-board graphics card model * On-board graphics card base frequency On-board graphics card dynamic frequency (max) Maximum on-board graphics card memory On-board graphics card DirectX version On-board graphics card OpenGL version On-board graphics card ID  Audio Audio Audio Audio chip Audio system Number of built-in speakers Speaker power Built-in microphone  Camera	Intel® UHD Graphics Intel® UHD Graphics 620 300 MHz 1100 MHz 32 GB 12.0 4.4 0x5917  Realtek ALC3287 Dolby Audio Premium 2 2 W	version Intel Stable Image Platform Program (SIPP) version Intel Secure Key Technology version Intel Secure Key Technology version Intel TSX-NI version Intel Virtualization Technology (VT-x) Processor ARK ID Conflict-Free processor  Battery Battery Battery technology  Power  AC adapter power AC adapter frequency AC adapter input voltage  Security Fingerprint reader Trusted Platform Module (TPM) Password protection Password protection type	1,00 1,00 1,00 1,00  124969  Lithium-lon (Li-lon)  65 W 50 - 60 Hz 100 - 240 V
On-board graphics card family On-board graphics card model * On-board graphics card base frequency On-board graphics card dynamic frequency (max) Maximum on-board graphics card memory On-board graphics card DirectX version On-board graphics card OpenGL version On-board graphics card ID  Audio Audio Audio chip Audio system Number of built-in speakers Speaker power Built-in microphone  Camera  Front camera Front camera resolution Front camera signal format	Intel® UHD Graphics Intel® UHD Graphics 620 300 MHz  1100 MHz  32 GB  12.0  4.4  0x5917  Realtek ALC3287  Dolby Audio Premium 2 2 W  ✓  1280 x 720 pixels 720p	version Intel Stable Image Platform Program (SIPP) version Intel Secure Key Technology version Intel Secure Key Technology version Intel TSX-NI version Intel Virtualization Technology (VT-x) Processor ARK ID Conflict-Free processor  Battery Battery Battery technology  Power AC adapter power AC adapter frequency AC adapter input voltage  Security Fingerprint reader Trusted Platform Module (TPM) Password protection Password protection type  Certificates	1,00 1,00 1,00  124969  Lithium-lon (Li-lon)  65 W 50 - 60 Hz 100 - 240 V  HDD, Power on, Supervisor
On-board graphics card family On-board graphics card model * On-board graphics card base frequency On-board graphics card dynamic frequency (max) Maximum on-board graphics card memory On-board graphics card DirectX version On-board graphics card OpenGL version On-board graphics card ID  Audio Audio Audio chip Audio system Number of built-in speakers Speaker power Built-in microphone  Camera  Front camera Front camera resolution	Intel® UHD Graphics Intel® UHD Graphics 620 300 MHz  1100 MHz  32 GB  12.0  4.4  0x5917  Realtek ALC3287  Dolby Audio Premium 2 2 W  ✓ 1280 x 720 pixels	version Intel Stable Image Platform Program (SIPP) version Intel Secure Key Technology version Intel Secure Key Technology version Intel TSX-NI version Intel Virtualization Technology (VT-x) Processor ARK ID Conflict-Free processor  Battery Battery Battery technology  Power  AC adapter power AC adapter frequency AC adapter input voltage  Security Fingerprint reader Trusted Platform Module (TPM) Password protection Password protection type  Certificates Compliance certificates	1,00 1,00 1,00 1,00  124969  Lithium-lon (Li-lon)  65 W 50 - 60 Hz 100 - 240 V
On-board graphics card family On-board graphics card model * On-board graphics card base frequency On-board graphics card dynamic frequency (max) Maximum on-board graphics card memory On-board graphics card DirectX version On-board graphics card OpenGL version On-board graphics card ID  Audio Audio Audio chip Audio system Number of built-in speakers Speaker power Built-in microphone  Camera  Front camera Front camera resolution Front camera signal format	Intel® UHD Graphics Intel® UHD Graphics 620 300 MHz  1100 MHz  32 GB  12.0  4.4  0x5917  Realtek ALC3287  Dolby Audio Premium 2 2 W  ✓  1280 x 720 pixels 720p	version Intel Stable Image Platform Program (SIPP) version Intel Secure Key Technology version Intel Secure Key Technology version Intel TSX-NI version Intel Virtualization Technology (VT-x) Processor ARK ID Conflict-Free processor  Battery Battery Battery technology  Power AC adapter power AC adapter frequency AC adapter input voltage  Security Fingerprint reader Trusted Platform Module (TPM) Password protection Password protection type  Certificates Compliance certificates  Sustainability	1,00 1,00 1,00  124969  Lithium-lon (Li-lon)  65 W 50 - 60 Hz 100 - 240 V  HDD, Power on, Supervisor  RoHS
On-board graphics card family On-board graphics card model * On-board graphics card base frequency On-board graphics card dynamic frequency (max) Maximum on-board graphics card memory On-board graphics card DirectX version On-board graphics card OpenGL version On-board graphics card ID  Audio Audio Audio chip Audio chip Audio system Number of built-in speakers Speaker power Built-in microphone  Camera Front camera Front camera resolution Front camera HD type	Intel® UHD Graphics Intel® UHD Graphics 620 300 MHz  1100 MHz  32 GB  12.0  4.4  0x5917  Realtek ALC3287  Dolby Audio Premium 2 2 W  ✓  1280 x 720 pixels 720p	version Intel Stable Image Platform Program (SIPP) version Intel Secure Key Technology version Intel Secure Key Technology version Intel TSX-NI version Intel Virtualization Technology (VT-x) Processor ARK ID Conflict-Free processor  Battery Battery Battery technology  Power  AC adapter power AC adapter frequency AC adapter input voltage  Security Fingerprint reader Trusted Platform Module (TPM) Password protection Password protection type  Certificates Compliance certificates	1,00 1,00 1,00  124969  Lithium-lon (Li-lon)  65 W 50 - 60 Hz 100 - 240 V  HDD, Power on, Supervisor
On-board graphics card family On-board graphics card model * On-board graphics card base frequency On-board graphics card dynamic frequency (max) Maximum on-board graphics card memory On-board graphics card DirectX version On-board graphics card OpenGL version On-board graphics card ID  Audio Audio Audio chip Audio system Number of built-in speakers Speaker power Built-in microphone  Camera  Front camera Front camera resolution Front camera HD type  Network	Intel® UHD Graphics Intel® UHD Graphics 620 300 MHz  1100 MHz  32 GB  12.0  4.4  0x5917  Realtek ALC3287  Dolby Audio Premium 2 2 W  ✓  1280 x 720 pixels 720p HD	version Intel Stable Image Platform Program (SIPP) version Intel Secure Key Technology version Intel Secure Key Technology version Intel TSX-NI version Intel Virtualization Technology (VT-x) Processor ARK ID Conflict-Free processor  Battery Battery Battery technology  Power AC adapter power AC adapter frequency AC adapter input voltage  Security Fingerprint reader Trusted Platform Module (TPM) Password protection Password protection type  Certificates Compliance certificates  Sustainability	1,00 1,00 1,00  124969  Lithium-lon (Li-lon)  65 W 50 - 60 Hz 100 - 240 V  HDD, Power on, Supervisor  RoHS
On-board graphics card family On-board graphics card model * On-board graphics card base frequency On-board graphics card dynamic frequency (max) Maximum on-board graphics card memory On-board graphics card DirectX version On-board graphics card OpenGL version On-board graphics card ID  Audio Audio Audio chip Audio system Number of built-in speakers Speaker power Built-in microphone  Camera  Front camera Front camera resolution Front camera HD type  Network Mobile network generation	Intel® UHD Graphics Intel® UHD Graphics 620 300 MHz  1100 MHz  32 GB  12.0  4.4  0x5917  Realtek ALC3287  Dolby Audio Premium 2 2 W  ✓  1280 x 720 pixels 720p HD	version Intel Stable Image Platform Program (SIPP) version Intel Secure Key Technology version Intel Secure Key Technology version Intel TSX-NI version Intel Virtualization Technology (VT-x) Processor ARK ID Conflict-Free processor  Battery Battery Battery technology  Power  AC adapter power AC adapter frequency AC adapter input voltage  Security Fingerprint reader Trusted Platform Module (TPM) Password protection Password protection type  Certificates Compliance certificates  Sustainability Sustainability certificates	1,00 1,00 1,00  124969  Lithium-lon (Li-lon)  65 W 50 - 60 Hz 100 - 240 V  HDD, Power on, Supervisor  RoHS

Network		Weight & dimensions	
Wi-Fi standards	802.11a, 802.11b, 802.11g, Wi-Fi 4 (802.11n), Wi-Fi 5 (802.11ac)	Height Weight *	19,9 mm 1,63 kg
Mobile network connection *		Packaging content	
Ethernet LAN Ethernet LAN data rates Bluetooth Bluetooth version	10,100,1000 Mbit/s 4.1	AC adapter included * Manual Power cord included	* * *
Ports & interfaces		Other features	
USB 3.2 Gen 1 (3.1 Gen 1) Type-A ports quantity *	2	Maximum internal memory (64-bit)	32 GB
USB 3.2 Gen 1 (3.1 Gen 1) Type-C ports quantity *	1		

USB 3.2 Gen 2 (3.1 Gen 2) Type-C ports quantity

Ethernet LAN (RJ-45) ports





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## **Catalog Object Cloud**



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