

## DELL Precision 5690 Intel Core Ultra 7 165H Station de travail mobile 40,6 cm (16") Full HD+ 32 Go LPDDR5x-SDRAM 1 To SSD NVIDIA RTX 1000 Ada Wi-Fi 7 (802.11be) Windows 11 Pro Gris

Famille de produit: Precision Code produit: TF4HK

Nom du produit : 5690

Marque : DELL

DELL Precision 5690. Type de produit: Station de travail mobile, Elément de format: Boîte coquille. Famille de processeur: Intel Core Ultra 7, Modèle de processeur: 165H. Taille de l'écran: 40,6 cm (16"), Type HD: Full HD+, Résolution de l'écran: 1920 x 1200 pixels. Mémoire interne: 32 Go, Type de mémoire interne: LPDDR5x-SDRAM. Capacité totale de stockage: 1 To, Supports de stockage: SSD. Modèle d'adaptateur graphique à bord: Intel Arc Graphics, Modèle d'adaptateur graphique discrêt: NVIDIA RTX 1000 Ada. Système d'exploitation installé: Windows 11 Pro. Couleur du produit: Gris





Design		Camera	
Product type *	Mobile workstation	Video capturing speed	30 fps
Product colour *	Grey	Infrared (IR) camera	1
Form factor *	Clamshell Business 🖌	Network	
Market positioning Intel® vPro™ Platform Eligibility		Top Wi-Fi standard *	Wi-Fi 7 (802.11be)
Display		Wi-Fi standards	802.11a, 802.11b, 802.11g, Wi-Fi 4 (802.11n), Wi-Fi 5 (802.11ac), Wi-Fi 6E (802.11ax), Wi-Fi 7 (802.11be)
Display diagonal *	40.6 cm (16")	Mobile network connection *	×
Display resolution *	1920 x 1200 pixels	Antenna type	2x2
Touchscreen *	×	WLAN controller model	Intel Wi-Fi 7 BE200
HD type	Full HD+	WLAN controller manufacturer	Intel
Panel type	IPS	Bluetooth	1
LED backlight	10.10	МІМО	1
Native aspect ratio	16:10	MIMO type	Multi User MIMO
nti-glare screen visplay brightness 500 cd/m²	Ports & interfaces		
Pixel density	142 ppi DCI-P3	USB 3.2 Gen 2 (3.1 Gen 2) Type-C ports quantity	1
RGB colour space Colour gamut	100%	HDMI ports quantity *	1
Maximum refresh rate	60 Hz	HDMI version	2.1
Contrast ratio (typical)	1300:1	Thunderbolt 4 ports quantity	2
Processor		Intel® Thunderbolt 4	✓
Processor manufacturer *	Intel	Combo headphone/mic port	✓
Processor family *	Intel Core Ultra 7	USB Type-C DisplayPort Alternate Mode	1
Processor generation	Intel <sup>®</sup> Core <sup>™</sup> Ultra (Series 1)	Performance	
Processor model *	165H	Ambient light sensor	1
Processor cores Processor threads	16 22	Accelerometer	* *
	22	Accelerometer	v

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Total storage capacity1TB SDUSB Power Delivery (USB PD)Storage mediaSSDTotal SSDs capacity1TBNumber of SSDs installed1SSD capacity1TBCable lock slot typeWedgeSSD capacity1TBCable lock slot typeWedgeSSD interfacePCI Express 4.0NVMeSSD form factorM.2SSD performance class40A0Trusted Platform Module (TPM) versionSSD size2280 (22 x 80 mm)Optical drive type *XCapacityNINDIA RTX 1000 AdaDiscrete graphics card model *NINDIA RTX 1000 AdaDiscrete graphics card model *NINDIA RTX 1000 AdaDiscrete graphics card model *AOn-board graphics card *On-board graphics card *IncleOperating elitive humidity (H-H)On-board graphics card *On-board graphics card *IncleOperating altitudeOn-board graphics card *Incle or operating shock100 GOn-board graphics card *Incle or operating shock100 GOn-board graphics card model *Intel Arc GraphicsOn-board graphics card *Number of built-in speakers4Speakers manufacturerIntel Arc GraphicsNumber of built-in speakers4Speakers manufacturerWavesBuilt-in microphoneVumber of built-in microphone20<	Memory data transfer rate	7467 MT/s		
Storage media*SSDTotal SSDs capacity1 TBSecurityNumber of SSDs installed1Cable lock slotSSD capacity1 TBCable lock slot typeWedgeSSD interfacePCI Express 4.0Fingerprint readerNVMeTrusted Platform Module (TPM)SSD form factorM.2Trusted Platform Module (TPM)2.0SSD performance class40versionA0Version </td <td></td> <td>7467 MT/s</td> <td>AC adapter frequency</td> <td>50 - 60 Hz</td>		7467 MT/s	AC adapter frequency	50 - 60 Hz
Number of SDD sinstalled1 NBSDD capacityTBCable lock slot✓SDD capacityTBCable lock slot typeWedgeSDD interfacePCI Express 4.0Fingerprint reader✓NVMe✓Trusted Platform Module (TPM)✓SDD form factorM.2Trusted Platform Module (TPM)✓SDD performance class40version✓M.2 SSD size2280 (22 x 80 mm)Password protection✓Optical drive type *XOperational conditions✓GraphicsOperating relative humidity (H-H)10 - 95 °CDiscrete graphics card model *NVIDIA RTX 1000 AdaStorage temperature (T-T)-40 - 65 °CDiscrete graphics card model *Operating relative humidity (H-H)10 - 90%Discrete graphics card model *Operating altitude-15.2 - 3048 mOn-board graphics card *Operating altitude-15.2 - 10668 mOn-board graphics card *Operating altitude-15.2 - 10668 mOn-board graphics card *Operating shock110 GOn-board graphics card familyIntel Arc GraphicsNon-operating vibration1.3 GAutioNon-operating vibration1.3 GMumber of built-in speakers4Width353.7 mmSpeakers manufacturerWavesPupthAutionStorage relative humidityNumber of microphonePupth2.05 cm	Storage		AC adapter frequency AC adapter input voltage	50 - 60 Hz 100 - 240 V
SDD capacity1 TBCable lock slot typeWedgeSSD interfacePCI Express 4.0Fingerprint readerNVMeTrusted Platform Module (TPM)SSD form factorM.2Trusted Platform Module (TPM)2.0SSD performance class40versionM.2 SSD size2280 (22 x 80 mm)Pasword protectionOptical drive type *ZOperational conditionsSTD form factorNVIDIA RTX 1000 AdaStorage temperature (T-T)0 - 35 °CDiscrete graphics card meony6 GBOperating relative humidity (H-H)10 - 90%Discrete graphics card meony6 GDDR6Storage relative humidity (H-H)0 - 95%On-board graphics card *Operating altitude-15.2 - 3048 mOn-board graphics card familyIntel Arc GraphicsNon-operating shock110 GOn-board graphics card familyIntel Arc GraphicsNon-operating shock100 GOn-board graphics card familyIntel Arc GraphicsNon-operating vibration0.66 GNon-operating vibration0.66 GNon-operating vibration1.3 GAutionYidth35.37 mmSidth faith	Storage Total storage capacity *	1 TB	AC adapter frequency AC adapter input voltage USB Power Delivery (USB PD)	50 - 60 Hz 100 - 240 V
SD interfacePCI Express 4.0Fingerprint reader· · · · · · · · · · · · · · · · · · ·	Storage Total storage capacity * Storage media *	1 TB SSD	AC adapter frequency AC adapter input voltage USB Power Delivery (USB PD)	50 - 60 Hz 100 - 240 V
NVMeInstact Platform Module (TPM)Instact Platform Module (ToM)Instact Platform Module (ToM)Ins	Storage Total storage capacity * Storage media * Total SSDs capacity	1 TB SSD 1 TB	AC adapter frequency AC adapter input voltage USB Power Delivery (USB PD) Security	50 - 60 Hz 100 - 240 V
SSD form factorM.2Trusted Platform Module (TPM) version2.0SSD performance class40Trusted Platform Module (TPM) version2.0M.2 SSD size2280 (22 x 80 mm)Password protectionOptical drive type *XOperational conditionsGraphicsNVIDIA RTX 1000 AdaStorage temperature (T-T)-0 - 35 °CDiscrete graphics card memory6 GBOperating relative humidity (H-H)10 - 90%Discrete graphics card memory6 GDR6Storage relative humidity (H-H)0 - 95%On-board graphics card *Operating altitude-15.2 · 3048 mOn-board GPU manufacturerIntelNon-operating altitude-15.2 · 10668 mDiscrete graphics card *Operating shock110 GOn-board graphics card *Non-operating shock160 GOn-board graphics card family On-board graphics card model *Intel Arc Graphics Intel Arc GraphicsNon-operating shock160 GNumber of built-in speakers4Storage tell within speakers35.7 mmSpeakers manufacturerWavesWidth353.7 mmDepthBuilt-in microphonePepth240.3 mmHumper of microphones220.5 cm	Storage Total storage capacity * Storage media * Total SSDs capacity Number of SSDs installed	1 TB SSD 1 TB 1	AC adapter frequency AC adapter input voltage USB Power Delivery (USB PD) Security Cable lock slot	50 - 60 Hz 100 - 240 V ✓
SSD performance class40version2.0M.2 SSD size2280 (22 x 80 mm)Password protection✓Optical drive type *X <b>Operational conditions</b> GraphicsOperating temperature (T-T)0 - 35 °CDiscrete graphics card model *NVIDIA RTX 1000 AdaStorage temperature (T-T)-40 - 65 °CDiscrete graphics card memory6 GBOperating relative humidity (H-H)10 - 90%Discrete graphics card *✓Operating relative humidity (H-H)0 - 95%On-board graphics card *✓Operating altitude-15.2 - 3048 mOn-board GPU manufacturerIntelNon-operating altitude-15.2 - 10668 mDiscrete graphics card *✓Operating shock110 GOn-board graphics card *✓Non-operating shock160 GOn-board graphics card *✓Non-operating shock1.3 GNumber of built-in speakers4Width353.7 mmSpeakers manufacturerWavesWidth353.7 mmBuilt-in microphones✓Popth240.3 mmHeight (front)2.05 cmPopth	Storage Total storage capacity * Storage media * Total SSDs capacity Number of SSDs installed SSD capacity	1 TB SSD 1 TB 1 1 TB	AC adapter frequency AC adapter input voltage USB Power Delivery (USB PD) Security Cable lock slot Cable lock slot type	50 - 60 Hz 100 - 240 V ✓ Wedge
SSD performance class     40     version       M.2 SSD size     2280 (22 x 80 mm)     Password protection        Optical drive type *     X     Operating conditions       Graphics     Operating temperature (T-T)     0 - 35 °C       Discrete graphics card model *     NVIDIA RTX 1000 Ada     Storage temperature (T-T)     -40 - 65 °C       Discrete graphics card memory     6 GB     Operating relative humidity (H-H)     10 - 90%       Discrete graphics card *      Operating altitude     -15.2 - 3048 m       On-board graphics card *      Operating shock     10 G       On-board GPU manufacturer     Intel     Non-operating shock     100 G       On-board graphics card model *     Intel Arc Graphics     Non-operating shock     160 G       On-board graphics card family     Intel Arc Graphics     Non-operating shock     10.6 G       On-board graphics card model *     Intel Arc Graphics     Non-operating vibration     0.66 G       On-board graphics card model *     Intel Arc Graphics     Non-operating vibration     1.3 G       Mumber of built-in speakers     4     Width     35.3.7 mm       Speakers manufacturer     Waves     Width     35.3.7 mm       Built-in microphones     2     Peth     240.3 mm	Storage Total storage capacity * Storage media * Total SSDs capacity Number of SSDs installed SSD capacity SSD interface	1 TB SSD 1 TB 1 1 TB PCI Express 4.0	AC adapter frequency AC adapter input voltage USB Power Delivery (USB PD) <b>Security</b> Cable lock slot Cable lock slot type Fingerprint reader	50 - 60 Hz 100 - 240 V ✓ Wedge ✓
Optical drive type *×Operational conditionsGraphicsOperating temperature (T-T)0 - 35 °CDiscrete graphics card model *NVIDIA RTX 1000 AdaStorage temperature (T-T)-40 - 65 °CDiscrete graphics card memory6 GBOperating relative humidity (H-H)10 - 90%Discrete graphics card *Operating relative humidity (H-H)0 - 95%On-board graphics card *Operating altitude-15.2 - 3048 mOn-board GPU manufacturerIntelNon-operating altitude-15.2 - 10668 mDiscrete graphics card *Operating shock110 GOn-board graphics card *Operating shock160 GOn-board graphics card familyIntel Arc GraphicsNon-operating vibration0.66 GOn-board graphics card model *Intel Arc GraphicsNon-operating vibration1.3 GAutioWeight & dimensions353.7 mmNumber of built-in speakers4MidthDepth2.05 cmBuilt-in microphonePeth2.05 cm	Storage Total storage capacity * Storage media * Total SSDs capacity Number of SSDs installed SSD capacity SSD interface NVMe	1 TB SSD 1 TB 1 1 TB PCI Express 4.0 ✓	AC adapter frequency AC adapter input voltage USB Power Delivery (USB PD) <b>Security</b> Cable lock slot Cable lock slot type Fingerprint reader Trusted Platform Module (TPM)	50 - 60 Hz 100 - 240 V V Wedge
GraphicsOperational conductorsDiscrete graphics card model *NVIDIA RTX 1000 AdaStorage temperature (T-T)-40 - 65 °CDiscrete graphics card memory6 GBOperating relative humidity (H-H)10 - 90%Discrete graphics card *Operating altive humidity (H-H)0 - 95%On-board graphics card *Operating altive humidity (H-H)0 - 95%On-board GPU manufacturerIntelNon-operating altive-15.2 - 3048 mDiscrete graphics card *Operating shock110 GOn-board GPU manufacturerIntelNon-operating shock160 GOn-board graphics card *Operating vibration0.66 GOn-board graphics card model *Intel Arc GraphicsNon-operating vibration0.66 GOn-board graphics card model *Intel Arc GraphicsWidth353.7 mmNumber of built-in speakers4Width2.05 cmBuilt-in microphonePepth2.05 cm	Storage Total storage capacity * Storage media * Total SSDs capacity Number of SSDs installed SSD capacity SSD interface NVMe SSD form factor	1 TB SSD 1 TB 1 1 TB PCI Express 4.0 ✓ M.2	AC adapter frequency AC adapter input voltage USB Power Delivery (USB PD) <b>Security</b> Cable lock slot Cable lock slot type Fingerprint reader Trusted Platform Module (TPM) Trusted Platform Module (TPM)	50 - 60 Hz 100 - 240 V V Wedge
Discrete graphics card model *NVIDIA RTX 1000 AdaStorage temperature (T-T)-40 - 65 °CDiscrete graphics card memory6 GBOperating relative humidity (H-H)10 - 90%Discrete graphics memory typeGDDR6Storage relative humidity (H-H)0 - 95%On-board graphics card *Operating altitude-15.2 - 3048 mOn-board GPU manufacturerIntelNon-operating altitude-15.2 - 10668 mDiscrete graphics card *Operating shock110 GOn-board graphics card familyIntel Arc GraphicsNon-operating shock160 GOn-board graphics card model *Intel Arc GraphicsOperating vibration0.66 GNon-operating vibration0.66 GNon-operating vibration1.3 GAudioWeight & dimensionsWeight & dimensionsVeight & dimensionsNumber of built-in speakers4Vidth353.7 mmBuilt-in microphoneDepth240.3 mmNumber of microphones2Depth2.05 cm	Storage Total storage capacity * Storage media * Total SSDs capacity Number of SSDs installed SSD capacity SSD interface NVMe SSD form factor SSD performance class	1 TB SSD 1 TB 1 1 TB PCI Express 4.0 ✓ M.2 40	AC adapter frequency AC adapter input voltage USB Power Delivery (USB PD) <b>Security</b> Cable lock slot Cable lock slot type Fingerprint reader Trusted Platform Module (TPM) Version	50 - 60 Hz 100 - 240 V V Wedge 2.0
Discrete graphics card model *NVIDIA RTX 1000 AdaStorage temperature (T-T)-40 - 65 °CDiscrete graphics card memory6 GBOperating relative humidity (H-H)10 - 90%Discrete graphics memory typeGDDR6Storage relative humidity (H-H)0 - 95%On-board graphics card *Operating altitude-15.2 - 3048 mOn-board GPU manufacturerIntelNon-operating altitude-15.2 - 10668 mDiscrete graphics card *Operating shock110 GOn-board graphics card familyIntel Arc GraphicsNon-operating shock160 GOn-board graphics card model *Intel Arc GraphicsOperating vibration0.66 GNon-operating vibration0.66 GNon-operating vibration1.3 GAudioWeight & dimensionsWeight & dimensionsVeight & dimensionsNumber of built-in speakers4Vidth353.7 mmBuilt-in microphoneDepth240.3 mmNumber of microphones2Depth2.05 cm	Storage Total storage capacity * Storage media * Total SSDs capacity Number of SSDs installed SSD capacity SSD interface NVMe SSD form factor SSD performance class M.2 SSD size	1 TB SSD 1 TB 1 1 TB PCI Express 4.0 ✓ M.2 40 2280 (22 x 80 mm)	AC adapter frequency AC adapter input voltage USB Power Delivery (USB PD) Security Cable lock slot Cable lock slot type Fingerprint reader Trusted Platform Module (TPM) Trusted Platform Module (TPM) version Password protection	50 - 60 Hz 100 - 240 V V Wedge 2.0
Discrete graphics card memory6 GBOperating relative humidity (H-H)10 - 90%Discrete graphics memory typeGDDR6Storage relative humidity (H-H)0 - 95%On-board graphics card *Operating altitude-15.2 - 3048 mOn-board GPU manufacturerIntelNon-operating altitude-15.2 - 10668 mDiscrete graphics card *Operating shock110 GOn-board graphics card *Operating shock160 GOn-board graphics card familyIntel Arc GraphicsNon-operating shock160 GOn-board graphics card model *Intel Arc GraphicsOperating vibration0.66 GNon-operating vibration0.66 GNon-operating vibration1.3 GAudioWavesWidth353.7 mmNumber of built-in speakers4Vidth353.7 mmBuilt-in microphoneDepth240.3 mmNumber of microphones22.05 cm	Storage Total storage capacity * Storage media * Total SSDs capacity Number of SSDs installed SSD capacity SSD interface NVMe SSD form factor SSD performance class M.2 SSD size Optical drive type *	1 TB SSD 1 TB 1 1 TB PCI Express 4.0 ✓ M.2 40 2280 (22 x 80 mm)	AC adapter frequency AC adapter input voltage USB Power Delivery (USB PD) Security Cable lock slot Cable lock slot type Fingerprint reader Trusted Platform Module (TPM) Version Password protection Operational conditions	50 - 60 Hz 100 - 240 V V Wedge 2.0
Discrete graphics memory typeGDDR6Storage relative humidity (H-H)0 - 95%On-board graphics card *Operating altitude-15.2 - 3048 mOn-board GPU manufacturerIntelNon-operating altitude-15.2 - 10668 mDiscrete graphics card *Operating shock110 GOn-board graphics card familyIntel Arc GraphicsNon-operating shock160 GOn-board graphics card model *Intel Arc GraphicsOperating vibration0.66 GNon-operating vibration0.66 GNon-operating vibration1.3 GAudioWeight & dimensionsWidth353.7 mmNumber of built-in speakers4Depth240.3 mmBuilt-in microphoneDepth (front)2.05 cm	Storage Total storage capacity * Storage media * Total SSDs capacity Number of SSDs installed SSD capacity SSD interface NVMe SSD form factor SSD performance class M.2 SSD size Optical drive type * Graphics	1 TB SSD 1 TB 1 1 TB PCI Express 4.0 ✓ M.2 40 2280 (22 x 80 mm) ×	AC adapter frequency AC adapter input voltage USB Power Delivery (USB PD) Security Cable lock slot Cable lock slot type Fingerprint reader Trusted Platform Module (TPM) version Password protection Dperational conditions Operating temperature (T-T)	50 - 60 Hz 100 - 240 V ✓ Wedge ✓ 2.0 ✓ 0 - 35 °C
On-board graphics card *IntelOperating altitude-15.2 - 3048 mOn-board GPU manufacturerIntelNon-operating altitude-15.2 - 10668 mDiscrete graphics card *Intel Arc GraphicsOperating shock110 GOn-board graphics card familyIntel Arc GraphicsNon-operating shock160 GOn-board graphics card model *Intel Arc GraphicsOperating vibration0.66 GNumber of built-in speakers4Weight & dimensionsNumber of built-in speakers4Vidth353.7 mmBuilt-in microphoneIOperating vibration2.05 cm	Storage Total storage capacity * Storage media * Total SSDs capacity Number of SSDs installed SSD capacity SSD interface NVMe SSD form factor SSD performance class M.2 SSD size Optical drive type * Graphics Discrete graphics card model *	1 TB SSD 1 TB 1 1 TB PCI Express 4.0 ✓ M.2 40 2280 (22 x 80 mm) ×	AC adapter frequency AC adapter input voltage USB Power Delivery (USB PD) Security Cable lock slot Cable lock slot type Fingerprint reader Trusted Platform Module (TPM) Version Password protection Dperational conditions Operating temperature (T-T) Storage temperature (T-T)	50 - 60 Hz 100 - 240 V ✓ Wedge ✓ 2.0 ✓ 0 - 35 °C -40 - 65 °C
On-board GPU manufacturerIntelNon-operating altitude-15.2 - 10668 mDiscrete graphics card *Operating shock110 GOn-board graphics card familyIntel Arc GraphicsNon-operating shock160 GOn-board graphics card model *Intel Arc GraphicsOperating vibration0.66 GNumber of built-in speakers4Weight & dimensionsSpeakers manufacturerWavesWidth353.7 mmBuilt-in microphoneDepth240.3 mmNumber of microphones2Leight (front)2.05 cm	Storage Total storage capacity * Storage media * Total SSDs capacity Number of SSDs installed SSD capacity SSD interface NVMe SSD form factor SSD performance class M.2 SSD size Optical drive type * <b>Graphics</b> Discrete graphics card model * Discrete graphics card memory	1 TB SSD 1 TB 1 1 TB PCI Express 4.0 ✓ M.2 40 2280 (22 x 80 mm) × NVIDIA RTX 1000 Ada 6 GB	AC adapter frequency AC adapter input voltage USB Power Delivery (USB PD) Security Cable lock slot Cable lock slot type Fingerprint reader Trusted Platform Module (TPM) Trusted Platform Module (TPM) version Password protection Dperational conditions Operating temperature (T-T) Storage temperature (T-T) Storage temperature (T-H)	50 - 60 Hz 100 - 240 V ✓ Wedge ✓ 2.0 ✓ 0 - 35 °C -40 - 65 °C 10 - 90%
Discrete graphics card *✓Operating shock110 GOn-board graphics card familyIntel Arc GraphicsNon-operating shock160 GOn-board graphics card model *Intel Arc GraphicsOperating vibration0.66 GAudioNon-operating vibration1.3 GNumber of built-in speakers4Weight & dimensionsSpeakers manufacturerVavesWidth353.7 mmBuilt-in microphone✓Depth240.3 mmNumber of microphones2Height (front)2.05 cm	Storage Total storage capacity * Storage media * Total SSDs capacity Number of SSDs installed SSD capacity SSD interface NVMe SSD form factor SSD performance class M.2 SSD size Optical drive type * <b>Graphics</b> Discrete graphics card model * Discrete graphics card memory Discrete graphics memory type	1 TB SSD 1 TB 1 1 TB PCI Express 4.0 ✓ M.2 40 2280 (22 x 80 mm) ×	AC adapter frequency AC adapter input voltage USB Power Delivery (USB PD) Security Cable lock slot Cable lock slot type Fingerprint reader Trusted Platform Module (TPM) Trusted Platform Module (TPM) version Password protection Dperational conditions Operating temperature (T-T) Storage temperature (T-T) Storage relative humidity (H-H)	50 - 60 Hz 100 - 240 V ✓ Wedge ✓ 2.0 ✓ 0 - 35 °C -40 - 65 °C 10 - 90% 0 - 95%
On-board graphics card family On-board graphics card model *Intel Arc Graphics Intel Arc GraphicsNon-operating shock160 GAudioOn-operating vibration0.66 GNumber of built-in speakers4Weight & dimensionsSpeakers manufacturerWavesWidth353.7 mmBuilt-in microphone<Depth240.3 mmNumber of microphones2Height (front)2.05 cm	Storage Total storage capacity * Storage media * Total SSDs capacity Number of SSDs installed SSD capacity SSD interface NVMe SSD form factor SSD performance class M.2 SSD size Optical drive type * <b>Graphics</b> Discrete graphics card model * Discrete graphics card memory Discrete graphics card memory type	1 TB SSD 1 TB 1 1 TB PCI Express 4.0 ✓ M.2 40 2280 (22 x 80 mm) ×	AC adapter frequency AC adapter input voltage USB Power Delivery (USB PD) Security Cable lock slot Cable lock slot type Fingerprint reader Trusted Platform Module (TPM) Version Password protection Dperational conditions Operating temperature (T-T) Storage temperature (T-T) Operating relative humidity (H-H) Storage relative humidity (H-H) Storage relative humidity (H-H)	50 - 60 Hz 100 - 240 V ✓ Wedge ✓ 2.0 ✓ 0 - 35 °C -40 - 65 °C 10 - 90% 0 - 95% -15.2 - 3048 m
On-board graphics card model *Intel Arc GraphicsOperating vibration0.66 GAudioNon-operating vibration1.3 GNumber of built-in speakers4Weight & dimensionsSpeakers manufacturerWavesWidth353.7 mmBuilt-in microphone<Depth240.3 mmNumber of microphones2Height (front)2.05 cm	Storage Total storage capacity * Storage media * Total SSDs capacity Number of SSDs installed SSD capacity SSD interface NVMe SSD form factor SSD performance class M.2 SSD size Optical drive type * <b>Graphics</b> Discrete graphics card memory Discrete graphics card memory type On-board graphics card *	1 TB SSD 1 TB 1 1 TB PCI Express 4.0 ✓ M.2 40 2280 (22 x 80 mm) X NVIDIA RTX 1000 Ada 6 GB GDDR6 ✓ Intel	AC adapter frequency AC adapter input voltage USB Power Delivery (USB PD) Security Cable lock slot Cable lock slot type Fingerprint reader Trusted Platform Module (TPM) version Password protection Dperational conditions Operating temperature (T-T) Storage temperature (T-T) Storage relative humidity (H-H) Storage relative humidity (H-H)	50 - 60 Hz 100 - 240 V ✓ Wedge ✓ 2.0 ✓ 0 - 35 °C -40 - 65 °C 10 - 90% 0 - 95% -15.2 - 3048 m -15.2 - 10668 m
AudioNon-operating vibration1.3 GNumber of built-in speakers4Weight & dimensionsSpeakers manufacturerWavesWidth353.7 mmBuilt-in microphone✓Depth240.3 mmNumber of microphones2Height (front)2.05 cm	Storage Total storage capacity * Storage media * Total SSDs capacity Number of SSDs installed SSD capacity SSD interface NVMe SSD form factor SSD performance class M.2 SSD size Optical drive type * <b>Graphics</b> Discrete graphics card model * Discrete graphics card memory Discrete graphics card * On-board graphics card * On-board GPU manufacturer	1 TB SSD 1 TB 1 1 TB PCI Express 4.0 ✓ M.2 40 2280 (22 x 80 mm) × NVIDIA RTX 1000 Ada 6 GB GDDR6 ✓ Intel ✓	AC adapter frequency AC adapter input voltage USB Power Delivery (USB PD) Security Cable lock slot Cable lock slot type Fingerprint reader Trusted Platform Module (TPM) Version Password protection Dperational conditions Operating temperature (T-T) Storage temperature (T-T) Storage temperature (T-T) Storage relative humidity (H-H) Storage relative humidity (H-H) Storage relative humidity (H-H) Operating altitude Non-operating altitude Operating shock	50 - 60 Hz 100 - 240 V ✓ Wedge ✓ 2.0 ✓ 0 - 35 °C -40 - 65 °C 10 - 90% 0 - 95% -15.2 - 3048 m -15.2 - 10668 m 110 G
Number of built-in speakers     4     Weight & dimensions       Speakers manufacturer     Waves     Width     353.7 mm       Built-in microphone     ✓     Depth     240.3 mm       Number of microphones     2     Height (front)     2.05 cm	Storage Total storage capacity * Total storage media * Total SSDs capacity Number of SSDs installed SSD capacity SSD interface NVMe SSD form factor SSD performance class M.2 SSD size Optical drive type * Graphics Discrete graphics card model * Discrete graphics card memory Discrete graphics card * On-board GPU manufacturer Discrete graphics card family	1 TB SSD 1 TB 1 1 TB PCI Express 4.0 ✓ M.2 40 2280 (22 x 80 mm) × NVIDIA RTX 1000 Ada 6 GB GDDR6 ✓ Intel ✓	AC adapter frequency AC adapter input voltage USB Power Delivery (USB PD) Security Cable lock slot Cable lock slot type Fingerprint reader Trusted Platform Module (TPM) Trusted Platform Module (TPM) version Password protection Operating temperature (T-T) Storage temperature (T-T) Storage temperature (T-T) Storage relative humidity (H-H) Storage r	50 - 60 Hz 100 - 240 V ✓ Wedge ✓ 2.0 ✓ 10 - 35 °C -40 - 65 °C 10 - 90% 0 - 95% -15.2 - 3048 m -15.2 - 10668 m 110 G 160 G 0.66 G
Speakers manufacturerWavesWidth353.7 mmBuilt-in microphoneImage: Comparison of microphonesDepth240.3 mmNumber of microphones2Height (front)2.05 cm	Storage Total storage capacity * Storage media * Total SSDs capacity Number of SSDs installed SSD capacity SSD interface NVMe SSD form factor SSD performance class M.2 SSD size Optical drive type * <b>Graphics</b> Discrete graphics card model * Discrete graphics card memory Discrete graphics card memory type On-board graphics card * On-board GPU manufacturer Discrete graphics card family On-board graphics card family On-board graphics card model *	1 TB SSD 1 TB 1 1 TB PCI Express 4.0 ✓ M.2 40 2280 (22 x 80 mm) × NVIDIA RTX 1000 Ada 6 GB GDDR6 ✓ Intel ✓	AC adapter frequency AC adapter input voltage USB Power Delivery (USB PD) Security Cable lock slot Cable lock slot type Fingerprint reader Trusted Platform Module (TPM) Trusted Platform Module (TPM) version Password protection Operating temperature (T-T) Storage temperature (T-T) Storage temperature (T-T) Storage relative humidity (H-H) Storage r	50 - 60 Hz 100 - 240 V ✓ Wedge ✓ 2.0 ✓ 10 - 35 °C -40 - 65 °C 10 - 90% 0 - 95% -15.2 - 3048 m -15.2 - 10668 m 110 G 160 G 0.66 G
Built-in microphoneDepth240.3 mmNumber of microphones2Height (front)2.05 cm	Storage Total storage capacity * Storage media * Total SSDs capacity Number of SSDs installed SSD capacity SSD interface NVMe SSD form factor SSD performance class M.2 SSD size Optical drive type * Graphics Discrete graphics card model * Discrete graphics card memory Discrete graphics card * On-board GPU manufacturer Discrete graphics card family On-board graphics card family On-board graphics card model *	1 TB SSD 1 TB 1 1 TB PCI Express 4.0 • M.2 40 2280 (22 x 80 mm) * NVIDIA RTX 1000 Ada 6 GB GDDR6 • Intel • Intel •	AC adapter frequency AC adapter input voltage USB Power Delivery (USB PD) Security Cable lock slot Cable lock slot type Fingerprint reader Trusted Platform Module (TPM) Version Password protection Operating temperature (T-T) Storage temperature (T-T) Operating relative humidity (H-H) Storage relative humidity (H-H) Storage relative humidity (H-H) Operating altitude Non-operating altitude Operating shock Non-operating shock Operating vibration	50 - 60 Hz 100 - 240 V ✓ Wedge ✓ 2.0 ✓ 10 - 35 °C -40 - 65 °C 10 - 90% 0 - 95% -15.2 - 3048 m -15.2 - 10668 m 110 G 160 G 0.66 G
Number of microphones 2 Height (front) 2.05 cm	Storage Total storage capacity * Storage media * Total SSDs capacity Number of SSDs installed SSD capacity SSD interface NVMe SSD form factor SSD performance class M.2 SSD size Optical drive type * Graphics Discrete graphics card model * Discrete graphics card memory Discrete graphics card * On-board GPU manufacturer Discrete graphics card family On-board graphics card model * Discrete graphics card model * Discrete graphics card model * Discrete graphics card * On-board graphics card family On-board graphics card model * Discrete graphics card model * Discrete graphics card model * Discrete graphics card * On-board graphics card model * Discrete graphics card model * Discr	1 TB SSD 1 TB 1 1 TB PCI Express 4.0 • M.2 40 2280 (22 x 80 mm) * NVIDIA RTX 1000 Ada 6 GB GDDR6 • Intel Intel Intel Arc Graphics Intel Arc Graphics	AC adapter frequency AC adapter input voltage USB Power Delivery (USB PD) Security Cable lock slot Cable lock slot type Fingerprint reader Trusted Platform Module (TPM) Trusted Platform Module (TPM) Version Password protection Operating temperature (T-T) Storage temperature (T-T) Storage temperature (T-T) Storage relative humidity (H-H) Storage relative humidity (H-H) Storage relative humidity (H-H) Operating altitude Non-operating altitude Operating shock Non-operating vibration Non-operating vibration	50 - 60 Hz 100 - 240 V ✓ Wedge ✓ 2.0 ✓ 10 - 35 °C -40 - 65 °C 10 - 90% 0 - 95% -15.2 - 3048 m -15.2 - 10668 m 110 G 160 G 0.66 G 1.3 G
Height (rear) 2.22 cm	Storage Total storage capacity * Storage media * Total SSDs capacity Number of SSDs installed SSD capacity SSD interface NVMe SSD form factor SSD performance class M.2 SSD size Optical drive type * Graphics Discrete graphics card model * Discrete graphics card memory Discrete graphics card * On-board graphics card family On-board graphics card family On-board graphics card model * Discrete graphics card model * Discrete graphics card family On-board graphics card family On-board graphics card model * Discrete graphics card model * Discrete graphics card family Con-board graphics card family Con-board graphics card model *	1 TB SSD 1 TB 1 1 TB PCI Express 4.0 • M.2 40 2280 (22 x 80 mm) * NVIDIA RTX 1000 Ada 6 GB GDDR6 • Intel Intel Intel Intel Arc Graphics Intel Arc Graphics	AC adapter frequency AC adapter input voltage USB Power Delivery (USB PD) Security Cable lock slot Cable lock slot type Fingerprint reader Trusted Platform Module (TPM) Trusted Platform Module (TPM) version Password protection Operating temperature (T-T) Storage temperature (T-T) Storage relative humidity (H-H) Storage relative humidity (H-H) Storage relative humidity (H-H) Operating altitude Non-operating altitude Non-operating shock Non-operating shock Non-operating vibration Non-operating vibration <b>Weight &amp; dimensions</b>	50 - 60 Hz 100 - 240 V ✓ Wedge ✓ 2.0 2.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3
	Storage Total storage capacity * Total storage media * Total SSDs capacity Number of SSDs installed SSD capacity SSD interface NVMe SSD form factor SSD performance class M.2 SSD size Optical drive type *  Graphics Discrete graphics card model * Discrete graphics card memory type On-board graphics card * On-board graphics card family On-board graphics card family On-board graphics card model * Discrete graphics card model * Discrete graphics card model * Discrete graphics card # Con-board graphics card family On-board graphics card family Con-board graphics card model * Discrete graphics card family Con-board graphics card family Con-board graphics card family Con-board graphics card model * Discrete graphics card model * Discrete graphics card family Con-board graphics card family Con-board graphics card model * Discrete graphics card family Con-board graphics card model * Discrete graphics card model * Discrete graphics card model * Discrete graphics card family Con-board graphics card model * Discrete graphics card model * Discrete graphics card model * Discrete graphics card family Con-board graphics card model * Discrete grap	1 TB SSD 1 TB 1 1 TB PCI Express 4.0 • M.2 40 2280 (22 x 80 mm) * NVIDIA RTX 1000 Ada 6 GB GDDR6 • Intel Intel Intel At Source of the set of th	AC adapter frequency AC adapter input voltage USB Power Delivery (USB PD) Security Cable lock slot Cable lock slot type Fingerprint reader Trusted Platform Module (TPM) Version Password protection Operating temperature (T-T) Storage temperature (T-T) Storage relative humidity (H-H) Storage relative humidity (H-H) Operating altitude Non-operating altitude Non-operating shock Non-operating shock Non-operating vibration <b>Weight &amp; dimensions</b> Width Depth	50 - 60 Hz 100 - 240 V ✓ Wedge ✓ ✓ 2.0 ✓ 2.0 ✓ 10 - 35 °C -40 - 65 °C 10 - 90% 0 - 95% -15.2 - 3048 m -15.2 - 10668 m 110 G 160 G 0.66 G 1.3 G

## Camera

Front camera✓Front camera resolution (numeric)2.07 MPFront camera resolution1920 x 1Front camera HD typeFull HD

2.07 MP
 1920 x 1080 pixels
 Full HD

Weight & dimensions	
Weight *	2.03 kg
Carbon footprint	
Total carbon footprint (kg of CO2e)	246
Carbon emissions, manufacturing (kg of CO2e)	200
Carbon emissions, logistics (kg of CO2e)	7
Carbon emissions, energy usage (kg of CO2e)	36
Carbon emissions, end-of-life (kg of CO2e)	2
Total carbon emissions, w/o use phase (kg of CO2e)	210
PAIA version	GaBi version 1, 2024
Packaging content	
Cables included	AC



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