### Mount Royal University InformationTechnology Services

**Office Computing Services** 

University Computing Baseline Specifications







THIS PUBLICATION IS INTENDED FOR REFERENCE PURPOSES TO FAMILIARIZE CLIENTS WITH THE ADMINISTRATIVE COMPUTING SPECIFCATIONS ON CAMPUS.

THE CONTENT CONTAINED IS REVIEWED AND UPDATED AS NECESSARY EACH FISCAL YEAR.

COMPUTER SPECIFICATIONS AND PRICING ARE SUBJECT TO CHANGE DUE TO MARKET CONDITIONS.

### **Computing Capability Overview** University Computer Equipment Usage Guidelines

All administrative computer desktop and laptop equipment utilized within the Mount Royal university campus adhere to the baseline specifications contained in this document. Individual clients or departments may not supply computers from an outside source for administrative use that is not approved by IT Services and purchased by Mount Royal University authorized purchasing agents; IT Services and Supply Chain Services as per information technology purchasing policy.

Computer peripherals for university administrative use may be outsourced for purchase under specific business approved circumstances, but dependent on the nature of the device, IT Services must be consulted prior to purchase to confirm that the device will not have an adverse impact on Mount Royal standard computing equipment and/or network infrastructure. The supervisor of Office Computing Services is consulted as IT Services' point of contact for faculty and administrative department purchases. Specific purchases for academic labs are referred to the Supervisor of Student Computing Services.

Personally, owned computers and peripherals may not be used on campus in substitution of Mount Royal administrative computers and peripherals. All approved administrative related computing equipment should be budgeted for by the faculty/administrative department for faculty and staff use. For visiting academic guests, part time instructors, and contractors, personal computer usage is covered by the following form: Application for Network Connectivity for Personal Computers; available through the forms section of the IT Services webpage.

#### https://www.mtroyal.ca/CampusServices/CampusResources/InformationTechnology/Forms/index.htm

Mount Royal is not liable for personal computing equipment that is damaged while used on campus. However, any Mount Royal computer equipment damaged, because of direct connection with a client's, personally owned computing equipment is the responsibility of the client and/or the client's department.

Computers on campus are categorized in the following classes of operation:

- Administrative: Faculty and staff are assigned one primary computer for the performance of their general administrative duties.
- Academic: Utilized in a multi-computer lab environment or student based operation.
- Department/Project: General purpose computer not assigned to a particular faculty or staff member or project specific use computer with a fixed term.
- Research: Specialized computing resource use by faculty research projects.

For further information on university computing guidelines see: IT Services Webpage - Administrative Computing Support:

https://www.mtroyal.ca/CampusServices/CampusResources/InformationTechnology/AdministrativeComputingSupport/index.htm

### Computing Capability Overview System Features

IT Services supports a business class specification for desktops and laptops deployed to all faculty, staff, and academic labs. To maximize operating and support efficiency, only select models from our partner vendors are offered. The models and specifications contained in this document are to be considered the university baseline specification. This document will change at regular intervals to reflect the current year's model lineup and may include changes to system specifications, pricing, and other content as required.

### **Features of Standard Systems**

- Supplied by vendor partner approved through RFP procurement process.
- System specifications developed and supported by IT Services.
- Current Microsoft Windows operating system certified for Mount Royal use.
- Current operating system patches.
- Current version of Microsoft Office, licensed by Mount Royal.
- Anti-virus software licensed by Mount Royal.
- IT Services and vendor supported hardware warranty; (Laptop/Desktop: 4 Year)
- Software image and technical support through IT Services for duration of warranty period.

Note: Warranty supported operating lifecycle for computers is 4 Years; computers operating past 4 years may only be serviced on a best efforts basis and may be recommended for retirement from service if determined no longer serviceable by IT Services.

### Computing Capability Overview System Features

Component Advising and Purchase Process	Baseline	Non-Baseline
Trusted Vendor, known source and quality	✓	×
Verified quality on components and compatibility with MRU services and systems	✓	×
ITS handles issues related to warranty and support	✓	×
Resources available to assist with configuration discussionsand handle steps in acquisition process	~	$\checkmark$

#### After Acquisition

#### **Support Hardware**

Authorized "in-house" technical support by MRU Resources	$\checkmark$	×
2 day response time for parts replacement andwarranty work (Dell/Lenovo) performed on-site	$\checkmark$	×
Warranty / Replacement Parts Quality guaranteed *	$\checkmark$	×

#### Image

System test and certified to work with all MRU supported applications	$\checkmark$	×
Image created with automatic process to complete patchand upgrades for Microsoft and major licensed software		
service packs	$\checkmark$	×
Automatic anti-virus subscription	$\checkmark$	×
Access to preloaded and configured MRU licensedsoftware <ul> <li>Microsoft Office</li> <li>Adobe Acrobat Pro</li> </ul>		×
Microsoft Anti-Virus		
<ul> <li>Microsoft, Google, and Firefox browsers</li> </ul>		

#### **Technical Support**

OCS team trained to service technology **	$\checkmark$	×
Remote Desktop Support	$\checkmark$	×

\* Individuals are on their own for resolving warranty issues if the vendor choses to replace with factory Refurbished components and/or systems and with no time guarantee on resolution.

\*\* Will do best effort to diagnose and resolve issue after that individual is on their own.

**D&LL**Technologies

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## Sleek looks, enhanced productivity



3" and 14" are configurable as a laptop or 2-in-1





#### MAXIMIZE PRODUCTIVITY ON OUR SMALLEST PREMIUM PCs

The Latitude 7000 Series is redesigned to be smaller and smarter than ever. Available in premium carbon fiber or stunning aluminum, we now offer a 15.6" screen. Power on instantly by opening the lid, and log in via ExpressSign-in. Maximize productivity with an available 4K or FHD display with ComfortView Plus low blue light solution, and a new keyboard & touchpad. Up-level video calls with an FHD camera, premium speakers and mics and intelligent audio. Keep your work private with camera shutter and SafeScreen options.



#### STAY CONNECTED, STAY PRODUCTIVE ANYWHERE

Have a reliable, fast connection whether on Wi-Fi or LTE. Dell's ExpressConnect provides seamless Wi-Fi no matter where you work. Intel® Wi-Fi 6 (Gig+) delivers nearly 3x faster speeds and next-gen security to PCs and wireless networks.<sup>16</sup> No Wi-Fi, no problem. Stay connected with with eSIM options and 4G LTE. Intel® Evo™ vPro® verified to deliver businesses the built-in security features, manageability, and stability IT needs along with consistent responsiveness, long real-world battery life and instant wake for an exceptional user experience.



#### **INNOVATION & SUSTAINABILITY**

With Latitude innovation never stops. Work confidently on 4K or FHD options with ComfortView Plus that reduces harmful low blue light while maintaining exceptional color. IT can manage thermals within the BIOS. It's not tied to software which saves on hard drive size, and saves IT management. Additionally, two pipes are better than one for removing heat, and our 2-in-1s have an adaptive thermal response, so they stay cooler on your lap than when on a desk. With our commitment to sustainability, waterborne paint is used on 100% of painted parts. Our 7000 Series PCs are EPEAT Gold registered.<sup>17</sup>



#### WORLD'S MOST INTELLIGENT BUSINESS PCs WITH BUILT-IN AI<sup>18</sup>

Our 7000 Series features Dell Optimizer, built-in Al that learns and responds to the way you work to improve application performance, battery life and audio settings in the background. New ExpressConnect provides seamless Wi-Fi by pushing bandwidth to conferencing applications and joining the best access points. All controlled through one module, at no additional cost, to reduce lag and help you run at peak performance.

# The world's most intelligent PCs featuring Dell Optimizer

Latitude devices feature Dell Optimizer a built-in artificial intelligence software that learns and adapts to your behavior to create a smarter, more personalized user experience. It automatically improves application performance, battery run time and more in the background, so you have fewer disruptions no matter where you're working.



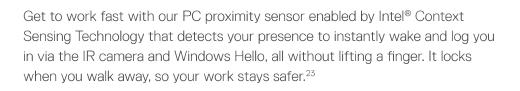
**ExpressConnect** 

Experience seamless Wi-Fi. New ExpressConnect<sup>21</sup> automatically joins the strongest access point in the office and directs bandwidth to conferencing applications, wherever you work.



With Intel<sup>®</sup> Adaptix<sup>™</sup> Technology, prioritize your most important apps, so they open faster and perform better.<sup>22</sup>







Dell Optimizer extends runtime and improves battery performance by adapting to your patterns. ExpressCharge Boost delivers up to 35% charge in about 20 minutes, or up to 80% charge in an hour with ExpressCharge.<sup>24</sup>



Collaborate like you're in the same room. Intelligent Audio enhances your audio quality and reduces background noises, so you can hear and be heard, creating a better conference experience for all.



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Feature	ture Technical Specifications Technical Specifications		Technical Specifications	
Model Number <sup>1</sup>	7320	7420	7520	
Processor Options <sup>1</sup>	11 <sup>th</sup> Generation Intel <sup>®</sup> Core™ Processors up to i7 vPro 4-Core	11 <sup>th</sup> Generation Intel <sup>®</sup> Core™ Processors up to i5 vPro 4-Core	11 <sup>th</sup> Generation Intel <sup>®</sup> Core™ Processors up to i7 vPro 4-Core	
Operating System <sup>1</sup>	Microsoft® Windows 10 Pro 64 bit Microsoft® Windows 10 Home 64 bit Ubuntu 20.04 LTS (Laptop)	Microsoft <sup>®</sup> Windows 10 Pro 64 bit	Microsoft® Windows 10 Pro 64 bit Microsoft® Windows 10 Home 64 bit Ubuntu 20.04 LTS (Laptop)	
Memory Options <sup>1,2,3</sup>	Up to 32GB LPDDR4 SDRAM (on board) 4266MHz	16GB LPDDR4 SDRAM (on board) 4266MHz	Up to 32GB LPDDR4 SDRAM (on board) 4266MHz	
Chipset <sup>1</sup>	Integrated with the Processor	Integrated with the Processor	Integrated with the Processor	
Intel Responsiveness Technologies <sup>1,7</sup>	Intel® Rapid Storage Technology	Intel® Rapid Storage Technology	Intel® Rapid Storage Technology	
Graphics <sup>1.13</sup>	Integrated Intel <sup>®</sup> Iris <sup>®</sup> Xe Graphics	Integrated Intel® Iris® Xe Graphics	Integrated Intel <sup>®</sup> Iris <sup>®</sup> Xe Graphics	
<ul> <li>isplay<sup>1</sup></li> <li>2-in-1</li> <li>13.3" FHD (1920x1080) Anti-reflective and Anti-smudge, Super Low Power, Touch, Corning<sup>®</sup> Gorilla Glass<sup>®</sup> 6 DXC, WVA, 300 nits, sRGB 100%, Active Pen Support</li> <li>Laptop</li> <li>13.3" FHD (1920 x 1080) Anti-glare, Non-touch, WVA, 250 nits, NTSC 45%</li> <li>13.3" FHD (1920 x 1080) Anti-glare, Super Low Power, Non-Touch, ComfortView Plus Low Blue Light, WVA, 400 nits, NTSC 45%</li> <li>13.3" FHD (1920 x 1080) Anti-glare, Integrated Touch, WVA, 300 nits, NTSC 72%</li> <li>14.0" FHD (1920 x 1080) Anti-glare, Integrated Touch, WVA, 300 nits, NTSC 72%</li> <li>14.0" FHD (1920 x 1080) Anti-glare, Touch, Digital Privacy SafeScreen, WVA, 300 nits, sRGB 100%</li> </ul>		Laptop 15.6" FHD (1920 x 1080) Anti-glare, Non-touch, WV/ 250 hits, NTSC 45% 15.6" FHD (1920 x 1080) Anti-glare, Super Low Powe Non-Touch, WVA, ComfortVlew Plus Low Blue Light 400 nits, sRGB 100% 15.6" FHD (1920 x 1080) Anti-glare, Integrated Touch WVA, 250 nits, NTSC 72% 15.6" UHD (3840 x 2160) Anti-glare, Super Low Pow Non-Touch, ComfortVlew Plus Low Blue Light, WVA 400 nits, sRGB 100%		
Storage Options <sup>1,3</sup>	SSD M.2 2230 PCIe Gen 3 NVMe up to 512GB SSD M.2 2280 PCIe Gen 3 NVMe up to 1TB SSD M.2 2280 PCIe Gen 3 NVMe up to 512GB OPAL SED	SSD M.2 2230 PCIe Gen 3 NVMe up to 256GB SSD M.2 2280 PCIe Gen 3 NVMe up to 1TB SSD M.2 2280 PCIe Gen 3 NVMe up to 512GB OPAL SED	SSD M.2 2230 PCIe Gen 3 NVMe up to 512GB SSD M.2 2280 PCIe Gen 3 NVMe up to 1TB SSD M.2 2280 PCIe Gen 3 NVMe up to 512GB OPAL	
Security <sup>1</sup>	TPM 2.0 FIPS 140-2 Certified, TCG Certified Optional Windows Hello Compliant Fingerprint Reader in power button Optional Security Hardware Authentication Bundles 1: Touch Fingerprint Reader (in Power Button) with Control Vault 3.0 Advanced Authentication with FIPS 140-2 Level 3 Certification 2: Contacted Smart Card with Control Vault 3.0 Advanced Authentication with FIPS 140-2 Level 3 Certification 3: Touch Fingerprint Reader (in Power Button) and Contacted Smart Card with Control Vault 3.0 Advanced Authentication with FIPS 140-2 Level 3 Certification 4: Contacted Smart Card, Contactless Smart Card NFC and Control Vault 3.0 Advanced Authentication with FIPS 140-2 Level 3 Certification 5: Touch Fingerprint Reader (in Power Button), Contacted Smart Card, Contactless Smart Card NFC and Control Vault 3.0 Advanced Authentication with FIPS 140-2 Level 3 Certification 5: Touch Fingerprint Reader (in Power Button), Contacted Smart Card, Contactless Smart Card NFC and Control Vault 3.0 Advanced Authentication with FIPS 140-2 Level 3 Certification Optional Face IR camera (Windows Hello compliant) with ExpressSign-In 1.0 (Proximity Sensor) Dell Client Command Suite Optional Dell Endpoint Security and Management Software VMware Carbon Black Endpoint Standard VMware Carbon Black Endpoint Standard VMware Carbon Black Endpoint Standard VMware Carbon Black Endpoint Standard VMware Workspace ONE Absolute <sup>®</sup> Endpoint Visibility and Control Netskope Dell Supply Chain Defense	T PM 2.0 FIPS 140-2 Certified, TCG Certified Optional Windows Hello Compliant Fingerprint Reader in power button Optional Security Hardware Authentication Bundles 1: Touch Fingerprint Reader (in Power Button) with Control Vault 3.0 Advanced Authentication with FIPS 140-2 Level 3 Certification 2: Contacted Smart Card with Control Vault 3.0 Advanced Authentication with FIPS 140-2 Level 3 Certification 3: Touch Fingerprint Reader (in Power Button) and Contacted Smart Card with Control Vault 3.0 Advanced Authentication with FIPS 140-2 Level 3 Certification 4: Contacted Smart Card, Contactless Smart Card NFC and Control Vault 3.0 Advanced Authentication with FIPS 140-2 Level 3 Certification 5: Touch Fingerprint Reader (in Power Button), Contacted Smart Card, Contactless Smart Card NFC and Control Vault 3.0 Advanced Authentication with FIPS 140-2 Level 3 Certification 5: Touch Fingerprint Reader (in Power Button), Contacted Smart Card, Contactless Smart Card NFC and Control Vault 3.0 Advanced Authentication with FIPS 140-2 Level 3 Certification Optional Face IR camera (Windows Hello compliant) with ExpressSign-In 1.0 (Proximity Sensor) Dell Clint Command Suite Dell BIOS Verification Optional Dell Endpoint Security and Management Software VMware Carbon Black Endpoint Standard VMware Carbon Black Endpoint Standard VMware Carbon Black Endpoint Standard VMware Workspace ONE Absolute® Endpoint Visibility and Control Netskope Dell Supply Chain Defense	TPM 2.0 FIPS 140-2 Certified, TCG Certified Optional Windows Hello Compliant Fingerprint Reade power button Optional Security Hardware Authentication Bundles 1: Touch Fingerprint Reader (in Power Button) with Control Vault 3.0 Advanced Authentication with FIPS 2 Level 3 Certification 2: Contacted Smart Card with Control Vault 3.0 Adva Authentication with FIPS 140-2 Level 3 Certification 3: Touch Fingerprint Reader (in Power Button) and Contacted Smart Card with Control Vault 3.0 Advanced Authentication with FIPS 140-2 Level 3 Certification 4: Touch Fingerprint Reader (in Power Button), Conta Smart Card, Contactless Smart Card NFC and Contr Vault 3.0 Advanced Authentication with FIPS 140-2 I 3 Certification Optional Face IR camera (Windows Hello compliant) ExpressSign-In 1.0 (Proximity Sensor) Dell Client Command Suite Optional Dell Endpoint Security and Management Software VMware Carbon Black Endpoint Standard VMware Carbon Black Endpoint Standard VMware Carbon Black Endpoint Standard Ware Carbon Black Endpoint Standard Carbonite VInware Workspace ONE Absolute® Endpoint Visibility and Control Netskope Dell Supply Chain Defense	

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Feature	Technical Specifications	Technical Specifications	Technical Specifications
Docking <sup>1</sup>	Dell ThunderboltTM Dock- WD19TB (optional, sold separately) Dell Dock- WD19 (optional, sold separately)	Dell ThunderboltTM Dock- WD19TB (optional, sold separately) Dell Dock- WD19 (optional, sold separately)	Dell ThunderboltTM Dock- WD19TB (optional, sold separately) Dell Dock- WD19 (optional, sold separately)
Optical Drive Options	External Options Only	External Options Only	External Options Only
Multimedia <sup>1</sup>	High Quality Speakers Universal Audio jack Noise reducing array microphones Optional HD RGB Camera + TNR + Camera Shutter Optional HD IR Camera + TNR + Proximity Sensor + Camera Shutter Optional FHD IR Camera + TNR + Proximity Sensor + Camera Shutter Skype For Business Certified	High Quality Speakers Universal Audio jack Noise reducing array microphones Optional HD RGB Camera + TNR + Camera Shutter Optional HD IR Camera + TNR + Proximity Sensor + Camera Shutter Optional FHD IR Camera + TNR + Proximity Sensor + Camera Shutter Skype For Business Certified	High Quality Speakers Universal Audio jack Noise reducing array microphones Optional HD RGB Camera + TNR + Camera Shutter Optional HD IR Camera + TNR + Proximity Sensor + Camera Shutter Optional FHD IR Camera + TNR + Proximity Sensor + Camera Shutter Skype For Business Certified
Battery Options <sup>15</sup>	3 cell 42 WHr ExpressCharge 2.0™ Capable Battery & Long Life Cycle capable 4 cell 63 WHr ExpressCharge2.0 ™ Capable Battery & Long Life Cycle capable	3 cell 42 WHr ExpressCharge 2.0™ Capable Battery & Long Life Cycle capable 4 cell 63 WHr ExpressCharge2.0 ™ Capable Battery & Long Life Cycle capable	3 cell 42 WHr ExpressCharge 2.0™ Capable Battery & Long Life Cycle capable 4 cell 63 WHr ExpressCharge2.0 ™ Capable Battery & Long Life Cycle capable
Power Options <sup>1</sup>	65W adapter, Type-C 90W adapter, Type-C	65W adapter, Type-C 90W adapter, Type-C	65W adapter, Type-C 90W adapter, Type-C
Connectivity options <sup>1,10</sup>	Microsoft Modern Standby Compliant Wireless LAN Options <sup>9</sup> : Intel <sup>®</sup> Wi-Fi 6 AX201 2x2.11ax 160MHz + Bluetooth 5.1 Mobile Broadband Options <sup>9, 10</sup> Gualcomm <sup>®</sup> Snapdragon <sup>™</sup> X20 LTE-A CAT 16 (DW5821e) eSIM capable, excluding China, Turkey, and US Gualcomm <sup>®</sup> Snapdragon <sup>™</sup> X20 LTE-A CAT 16 (DW5821e) WW Gualcomm <sup>®</sup> Snapdragon <sup>™</sup> X20 LTE-A CAT 16 (DW5821e) for AT&T, Verizon & Sprint, US only Gualcomm <sup>®</sup> Snapdragon <sup>™</sup> X20 LTE-A CAT 9 (DW5829e) eSIM capable, excluding China, Turkey, and US Gualcomm <sup>®</sup> Snapdragon <sup>™</sup> X20 LTE-A CAT 9 (DW5829e) eSIM capable, value CAT 9 (DW5829e) WW Gualcomm <sup>®</sup> Snapdragon <sup>™</sup> X20 LTE-A CAT 9 (DW5829e), Sprint, AT&T, Verizon, US only	Microsoft Modern Standby Compliant Wireless LAN Options <sup>9</sup> : Intel <sup>®</sup> Wi-Fi 6 AX201 2x2.11ax 160MHz + Bluetooth 5.1 Mobile Broadband Options <sup>9,10</sup> Gualcomm <sup>®</sup> Snapdragon <sup>™</sup> X20 LTE-A CAT 16 (DW5821e) eSIM capable, excluding China, Turkey, and US Gualcomm <sup>®</sup> Snapdragon <sup>™</sup> X20 LTE-A CAT 16 (DW5821e) WW Gualcomm <sup>®</sup> Snapdragon <sup>™</sup> X20 LTE-A CAT 16 (DW5821e) for AT&T, Verizon & Sprint, US only Gualcomm <sup>®</sup> Snapdragon <sup>™</sup> X20 LTE-A CAT 9 (DW5829e) eSIM capable, excluding China, Turkey, and US Gualcomm <sup>®</sup> Snapdragon <sup>™</sup> X20 LTE-A CAT 9 (DW5829e) eSIM capable, value CAT 9 (DW5829e) WW Gualcomm <sup>®</sup> Snapdragon <sup>™</sup> X20 LTE-A CAT 9 (DW5829e), Sprint, AT&T, Verizon, US only	Microsoft Modern Standby Compliant Wireless LAN Options <sup>9</sup> : Intel <sup>®</sup> Wi-Fi 6 AX201 2x2.11ax 160MHz + Bluetooth 5.1 Mobile Broadband Options <sup>8, 10</sup> Gualcomm <sup>®</sup> Snapdragon <sup>™</sup> X20 LTE-A CAT 16 (DW5821e) eSIM capable, excluding China, Turkey, and US Gualcomm <sup>®</sup> Snapdragon <sup>™</sup> X20 LTE-A CAT 16 (DW5821e) WW Gualcomm <sup>®</sup> Snapdragon <sup>™</sup> X20 LTE-A CAT 16 (DW5821e) for AT&T, Verizon & Sprint, US only Gualcomm <sup>®</sup> Snapdragon <sup>™</sup> X20 LTE-A CAT 9 (DW5829e) eSIM capable, excluding China, Turkey, and US Gualcomm <sup>®</sup> Snapdragon <sup>™</sup> X20 LTE-A CAT 9 (DW5829e) WW Gualcomm <sup>®</sup> Snapdragon <sup>™</sup> X20 LTE-A CAT 9 (DW5829e), Sprint, AT&T, Verizon, US only
Ports, Slots & Chassis <sup>1</sup>	2x USB Type C Thunderbolt <sup>™</sup> 4.0 with Power Delivery & DisplayPort 1x USB 3.2 Gen 1 with Power share 1x HDMI 2.0 1x external uSIM card tray (optional) 1x uSD 4.0 Memory card reader 1x Optional Contacted SmartCard Reader 1x Optional Touch Fingerprint Reader in Power Button Wedge-shaped Lock slot	2x USB Type C Thunderbolt <sup>™</sup> 4.0 with Power Delivery & DisplayPort 1x USB 3.2 Gen 1 with Power share 1x HDMI 2.0 1x external uSIM card tray (optional) 1x uSD 4.0 Memory card reader 1x Optional Contacted SmartCard Reader 1x Optional Touch Fingerprint Reader in Power Button Wedge-shaped Lock slot	2x USB Type C Thunderbolt <sup>™</sup> 4.0 with Power Delivery & DisplayPort 2x USB 3.2 Gen 1, One with PowerShare 1x HDMI 2.0 1x external uSIM card tray (optional) 1x uSD 4.0 Memory card reader 1x Optional Contacted SmartCard Reader 1x Optional Touch Fingerprint Reader in Power Button Wedge-shaped Lock slot
Dimensions & Weight <sup>115</sup>	Width: 12.07" / 306.5 mm Height (Non-Touch FHD): 0.67" / 16.96mm Depth: 7.87" / 199.95 mm Laptop Starting Weight: 2.48 lbs / 1.12 kg 2-in-1 Starting Weight: 3.06 lbs / 1.39 kg (42 WHr battery, M.2 SSD, FHD LCD)	Width: 12.65" / 321.35mm Height (Non-Touch): 0.68" / 17.27mm Depth: 8.22" / 208.69 mm Laptop Starting Weight: 2.70 lbs / 1.22 kg 2-in-1 Starting Weight: 3.0 lbs / 1.36 kg (42 Whr battery, M.2 SSD, FHD LCD)	Width: 14.08" / 357.70mm Height (Non-Touch FHD): 0.69" / 17.5mm Depth: 9.05" / 229.75 mm Starting weight: 337 lbs / 1.53 kg (42 Whr battery, M.2 SSD, FHD LCD)
Regulatory and Environmental Compliance <sup>1</sup>	Laptop: Regulatory Model: P133G; Regulatory Type: P133G001 2-in-1: Regulatory Model: P134G; Regulatory Type:P134G001 ENERGY STAR compliant configurations available EPEAT Gold Registered. For specific country participation and rating, please see www.epeat.net BFR/PVC free <sup>9</sup> Trade Agreements Acts (TAA) configurations available	Laptop: Regulatory Model: P135G; Regulatory Type: P135G001 2-in-1: Regulatory Model: P136G; Regulatory Type: P136G001 ENERGY STAR compliant configurations available EPEAT Gold Registered. For specific country participation and rating, please see www.epeat.net BFR/PVC free <sup>9</sup> Trade Agreements Acts (TAA) configurations available	Laptop: Regulatory Model: P110F; Regulatory Type: P110F001 ENERGY STAR compliant configurations available EPEAT Gold Registered. For specific country participation and rating, please see www.epeat.net BFR/PVC free <sup>®</sup> Trade Agreements Acts (TAA) configurations available
Input <sup>1</sup>	Single Pointing Non-Backlit Keyboard, Spill Resistant Single Pointing Backlit Keyboard, Spill Resistant Microsoft® Precision Touchpad Dell Premium Active Pen PN579X (2-in-1 configs only, optional, sold seperately)	Single Pointing Non-Backlit Keyboard, Spill Resistant Single Pointing Backlit Keyboard, Spill Resistant Microsoft® Precision Touchpad Dell Premium Active Pen PN579X (2-in-1 configs only, optional, sold seperately)	Single Pointing Non-Backlit Keyboard, Spill Resistant Single Pointing Backlit Keyboard, Spill Resistant Microsoft <sup>®</sup> Precision Touchpad
Systems Management <sup>1</sup>	Intel® vPro <sup>™</sup> Technology (iAMT 12) (optional, requires Intel WiFi® Link WLAN and a vPro compatible processor), Dell Client Command Suite available (dell.com/command), Factory Installed Dell Client Command, Factory Installed Dell Optimizer	Intel <sup>®</sup> vPro™ Technology (iAMT 12) (optional, requires Intel WiFi <sup>®</sup> Link WLAN and a vPro compatible processor), Dell Client Command Suite available (dell.com∕ command), Factory Installed Dell Client Command, Factory Installed Dell Optimizer	Intel <sup>®</sup> vPro™ Technology (iAMT 12) (optional, requires Intel WiFi <sup>®</sup> Link WLAN and a vPro compatible processor), Dell Client Command Suite available (dell.com/ command), Factory Installed Dell Client Command, Factory Installed Dell Optimizer
Warranty and Service <sup>1</sup>	Limited Hardware Warranty <sup>4</sup> , Standard 3 year Mall-in Service after Remote Diagnosis <sup>11</sup> , optional 3, 4 and 5 year hardware warranty extensions, and 3-5 year Dell ProSupport contracts available <sup>12</sup>	Limited Hardware Warranty <sup>4</sup> , Standard 3 year Mail-In Service after Remote Diagnosis'', optional 3, 4 and 5 year hardware warranty extensions, and 3-5 year Dell ProSupport contracts available <sup>12</sup>	Limited Hardware Warranty <sup>1</sup> , Standard 3 year Mail-in Service after Remote Diagnosis <sup>11</sup> , optional 3, 4 and 5 year hardware warranty extensions, and 3-5 year Dell ProSupport contracts available <sup>12</sup>
Peripheral Ecosystem <sup>1</sup>	Wide range of accessories designed and tested for the Latitude 7320 enable productivity on the go or at the desk. See imp	Wide range of accessories designed and tested for the Latitude 7420 enable productivity on the go or at the desk ortant information on page 7	Wide range of accessories designed and tested for the Latitude 7520 enable productivity on the go or at the desk.

## **D**&LLTechnologies

**OPTIPLEX 3080 TOWER, SMALL FORM FACTOR AND MICRO** 

Business desktops with streamlined performance and essential manageability options to drive maximum value.





#### **POWER YOUR SUCCESS**

Speed through routine tasks seamlessly with 10<sup>th</sup> generation Intel<sup>®</sup> Core<sup>™</sup> processors and up to 65W CPU for towers. Now supporting double maximum memory than previous generation – up to 64GB DDR4 (32GB DIMMS) – and delivering faster user experiences.



#### **CONVENIENT CONNECTIONS**

Create a multi-monitor set up to improve productivity and task accuracy with support for up to three monitors, including native DisplayPort 1.4 and HDMI, and optional VGA, HDMI 2.0b or 2nd DisplayPort.



### SECURE SOLUTION

The redesigned OptiPlex 3080 offers more security than ever. Work smart with secure features including TPM 2.0, SED hard drive, standard security lock slot, padlock loop and intrusion switch. Protect your IT investment completely with Dell Endpoint Security.



#### **EFFICIENT DESIGN**

New "shift" venting pattern of the chassis maximizes air intake to help your system stay cool. The compact, entry tool-less design, now provides easier access to parts for quicker serviceability, without the need to remove the front bezel. Versatile mounting options enable a personalized, clutter-free workspace.

OPTIPLEX 3080 TOWER, SMALL FORM FACTOR AND MICRO

Feature	OptiPlex 3080 Technical Specifications <sup>1</sup>
Processors <sup>1</sup>	Tower, Small Form Factor: Intel® Celeron® G5900, 2 MB Cache, 2 Cores, 2 Threads, 3.4 GHz, 58 W Intel® Pentium® G6400, 4 MB Cache, 2 Cores, 4 Threads, 4.0 GHz, 58 W Intel® Pentium® G6500, 4 MB Cache, 2 Cores, 4 Threads, 4.1 GHz, 58 W 10 <sup>th</sup> Generation Intel® Core™ i3-10100, 6 MB Cache, 4 Cores, 8 Threads, 3.6 GHz to 4.3 GHz, 65 W 10 <sup>th</sup> Generation Intel® Core™ i3-10300, 8 MB Cache, 4 Cores, 8 Threads, 3.7 GHz to 4.4 GHz, 65 W 10 <sup>th</sup> Generation Intel® Core™ i5-10400, 12 MB Cache, 6 Cores, 12 Threads, 2.9 GHz to 4.3 GHz, 65 W 10 <sup>th</sup> Generation Intel® Core™ i5-10500, 12 MB Cache, 6 Cores, 12 Threads, 3.1 GHz to 4.5 GHz, 65 W 10 <sup>th</sup> Generation Intel® Core™ i5-10500, 12 MB Cache, 6 Cores, 12 Threads, 3.3 GHz to 4.8 GHz, 65 W 10 <sup>th</sup> Generation Intel® Core™ i5-10600, 12 MB Cache, 6 Cores, 12 Threads, 3.3 GHz to 4.8 GHz, 65 W 10 <sup>th</sup> Generation Intel® Core™ i5-10600, 12 MB Cache, 2 Cores, 2 Threads, 3.5 GHz, 58W 10 <sup>th</sup> Generation Intel® Core™ i5-10600, 12 MB Cache, 2 Cores, 4 Threads, 4.1 GHz, 58W 10 <sup>th</sup> Generation Intel® Core™ i5-10600, 12 MB Cache, 2 Cores, 4 Threads, 4.5 GHz, 65 W 10 <sup>th</sup> Generation Intel® Core™ i5-10505, 4MB Cache, 2 Cores, 4 Threads, 4.2 GHz, 58W 10 <sup>th</sup> Generation Intel® Pentium G6405, 4MB Cache, 2 Cores, 4 Threads, 4.2 GHz, 58W 10 <sup>th</sup> Generation Intel® Core™ i3-10105, 6MB Cache, 4 Cores, 8 Threads, 3.7 GHz to 4.4 GHz, 65W 10 <sup>th</sup> Generation Intel® Core™ i3-10305, 8MB Cache, 4 Cores, 8 Threads, 3.8 GHz to 4.6 GHz, 65W 10 <sup>th</sup> Generation Intel® Core™ i5-10505 12MB Cache, 6 Cores, 12 Threads, 3.2 GHz to 4.6 GHz, 65W
	Micro: Intel <sup>®</sup> Celeron <sup>®</sup> G5900T, 2 MB Cache, 2 Cores, 2 Threads, 3.2 GHz, 35 W Intel <sup>®</sup> Pentium <sup>®</sup> Gold G6400T, 4 MB Cache, 2 Cores, 4 Threads, 3.4 GHz, 35 W Intel <sup>®</sup> Pentium <sup>®</sup> Gold G6500T, 4 MB Cache, 2 Cores, 4 Threads, 3.5 GHz, 35 W 10 <sup>th</sup> Generation Intel <sup>®</sup> Core <sup>™</sup> i3-10100T, 6 MB Cache, 4 Cores, 8 Threads, 3.0 GHz to 3.8 GHz, 35 W 10 <sup>th</sup> Generation Intel <sup>®</sup> Core <sup>™</sup> i3-10300T, 8 MB Cache, 4 Cores, 8 Threads, 3.0 GHz to 3.9 GHz, 35 W 10 <sup>th</sup> Generation Intel <sup>®</sup> Core <sup>™</sup> i5-10400T, 12 MB Cache, 6 Cores, 12 Threads, 2.0 GHz to 3.6 GHz, 35 W 10 <sup>th</sup> Generation Intel <sup>®</sup> Core <sup>™</sup> i5-10500T, 12 MB Cache, 6 Cores, 12 Threads, 2.3 GHz to 3.8 GHz, 35 W 10 <sup>th</sup> Generation Intel <sup>®</sup> Core <sup>™</sup> i5-10600T, 12 MB Cache, 6 Cores, 12 Threads, 2.4 GHz to 4.0 GHz, 35 W 10 <sup>th</sup> Generation Intel <sup>®</sup> Core <sup>™</sup> i5-10700T, 16MB Cache, 8 Cores, 16 Threads, 2.0GHz to 4.5GHz, 35W* 10 <sup>th</sup> Generation Intel <sup>®</sup> Core <sup>™</sup> i7-10700T, 16MB Cache, 2 Cores, 2 Threads, 3.3GHz, 35W 10 <sup>th</sup> Generation Intel <sup>®</sup> Celeron G5905T, 4MB Cache, 2 Cores, 4 Threads, 3.5GHz, 35W 10 <sup>th</sup> Generation Intel <sup>®</sup> Pentium G6405T, 4MB Cache, 2 Cores, 4 Threads, 3.6GHz, 35W 10 <sup>th</sup> Generation Intel <sup>®</sup> Pentium G6505T, 4MB Cache, 2 Cores, 8 Threads, 3.0GHz to 3.9GHz, 35W 10 <sup>th</sup> Generation Intel <sup>®</sup> Core <sup>™</sup> i3-10105T, 6MB Cache, 4 Cores, 8 Threads, 3.0GHz to 3.9GHz, 35W 10 <sup>th</sup> Generation Intel <sup>®</sup> Core <sup>™</sup> i3-10305T, 8MB Cache, 4 Cores, 8 Threads, 3.0GHz to 4.0GHz, 35W 10 <sup>th</sup> Generation Intel <sup>®</sup> Core <sup>™</sup> i3-10305T, 8MB Cache, 4 Cores, 8 Threads, 3.0GHz to 4.0GHz, 35W
Chipset	Intel® B460 Chipset
Operating System Options <sup>1</sup>	Windows <sup>®</sup> 10 Home (64-bit) Windows <sup>®</sup> 10 IoT Enterprise 2019 LTSC (OEM only) Windows <sup>®</sup> 10 Professional (64-bit) Windows <sup>®</sup> 10 Pro Education (64-bit) NeoKylin <sup>®</sup> 7.0 (China only) Ubuntu <sup>®</sup> 18.04 (64-bit)
Video Card <sup>2</sup>	Intel® UHD Graphics 630 Intel® UHD Graphics 610 NVIDIA® GeForce® GT730, 2 GB, GDDR5 (optional, Tower and Small Form Factor only) AMD Radeon™ RX 640, 4 GB, GDDR5 (optional, Tower and Small Form Factor only) AMD Radeon™ R5 430, 2 GB, GDDR5 (optional, Tower and Small Form Factor only)
Memory <sup>2,3</sup>	<ul> <li>4 GB, 1 x 4 GB, DDR4, 2666 MHz for Intel<sup>®</sup> Celeron, Pentium, Core<sup>™</sup> i3/i5 processors, 2933 MHz for Intel<sup>®</sup>Core<sup>™</sup> i7 processor (Micro only)</li> <li>8 GB, 1 x 8 GB, DDR4, 2666 MHz for Intel<sup>®</sup> Celeron, Pentium, Core<sup>™</sup> i3/i5 processors, 2933 MHz for Intel<sup>®</sup>Core<sup>™</sup> i7 processor (Micro only)</li> <li>8 GB, 2 x 4 GB, DDR4, 2666 MHz for Intel<sup>®</sup> Celeron, Pentium, Core<sup>™</sup> i3/i5 processors, 2933 MHz for Intel<sup>®</sup>Core<sup>™</sup> i7 processor (Micro only)</li> <li>16 GB, 1 x 16 GB, DDR4, 2666 MHz for Intel<sup>®</sup> Celeron, Pentium, Core<sup>™</sup> i3/i5 processors, 2933 MHz for Intel<sup>®</sup>Core<sup>™</sup> i7 processor (Micro only)</li> <li>16 GB, 2 x 8 GB, DDR4, 2666 MHz for Intel<sup>®</sup> Celeron, Pentium, Core<sup>™</sup> i3/i5 processors, 2933 MHz for Intel<sup>®</sup>Core<sup>™</sup> i7 processor (Micro only)</li> <li>32 GB, 1 x 32 GB, DDR4, 2666 MHz for Intel<sup>®</sup> Celeron, Pentium, Core<sup>™</sup> i3/i5 processors, 2933 MHz for Intel<sup>®</sup>Core<sup>™</sup> i7 processor (Micro only)</li> <li>32 GB, 2 x 16 GB, DDR4, 2666 MHz for Intel<sup>®</sup> Celeron, Pentium, Core<sup>™</sup> i3/i5 processors, 2933 MHz for Intel<sup>®</sup>Core<sup>™</sup> i7 processor (Micro only)</li> <li>32 GB, 2 x 16 GB, DDR4, 2666 MHz for Intel<sup>®</sup> Celeron, Pentium, Core<sup>™</sup> i3/i5 processors, 2933 MHz for Intel<sup>®</sup>Core<sup>™</sup> i7 processor (Micro only)</li> <li>64 GB, 2 x 32 GB, DDR4, 2666 MHz for Intel<sup>®</sup> Celeron, Pentium, Core<sup>™</sup> i3/i5 processors, 2933 MHz for Intel<sup>®</sup>Core<sup>™</sup> i7 processor (Micro only)</li> </ul>
Wireless <sup>1,4</sup>	Qualcomm <sup>®</sup> QCA61x4a 802.11ac dual band 2x2 + Bluetooth 5.0 Intel <sup>®</sup> 3165 802.11ac dual band 1x1 + Bluetooth 4.2 Intel <sup>®</sup> Wi-Fi 6 AX200 2x2 (Gig+) + Bluetooth 5.1

OPTIPLEX 3080 TOWER, SMALL FORM FACTOR AND MICRO

Ports	Tower:1 RJ-45 port 10/100/1000 Mbps (rear)2 USB 2.0 Type-A ports (front)2 USB 3.2 Gen 1 Type-A port (front)2 USB 3.2 Gen 1 Type-A ports (rear)2 USB 3.2 Gen 1 Type-A ports (rear)1 Universal Audio Jack (front)1 Line-out audio port (rear, retaksable)1 DisplayPort 1.4 (rear)1 HDMI 1.4b port (rear)1 Serial /PS2 slot (optional)1 Optional 3rd Video Port (VGA/DP 1.4/HDMI 2.0b)
	Small Form Factor: 1 RJ-45 port 10/100/1000 Mbps (rear) 2 USB 2.0 Type-A ports (front) 2 USB 3.2 Gen 1 Type-A ports (front) 2 USB 2.0 Type-A ports with Smart Power On (rear) 2 USB 3.2 Gen 1 Type-A ports (rear) 1 Universal Audio Jack (front)
	1 DisplayPort 1.4 port (rear) 1 HDMI 1.4b port (rear) 1 Serial/PS2 slot (Optional) 1 Optional video port—HDMI 2.0b, DP, or VGA 1 Line-out audio port (rear, retaksable)
	Micro: 1 RJ-45 port 10/100/1000 Mbps (rear) 2 USB 3.2 Gen1 Type-A ports (front) 2 USB 3.2 Gen1 Type-A ports (rear) 1 USB 2.0 port (rear) 1 USB 2.0 port with Smart Power on (rear) 1 Universal Audio Jack (front) 1 Line-out audio port (front, retaksable) 1 DisplayPort 1.4 port (rear) 1 HDMI 1.4 port (rear) 1 VGA Port/DisplayPort 1.4 Port/HDMI 2.0b Port (optional)
Optical Drive	Optional 8x DVD-ROM 9.5mm ODD (Tower and Small Form Factor) Optional 8x DVD+/-RW 9.5mm ODD (Tower and Small Form Factor) Dell OptiPlex Micro DVD/RW Enclosure Mount (Micro only)
Slots	Tower: 1 full-height PCle x16 Gen 3 slot 2 full-height PCle x1 Gen 3 slot 1 M.2 2230 slot for wireless 1 M.2 2230/2280 slot for storage 3 SATA slots Small Form Factor:
	1 half-height PCle x16 Gen 3 slot 1 half-height PCle x1 Gen 3 slot 1 M.2 2230 slot for wireless 1 M.2 2230/2280 slots for storage 2 SATA slots - 1x3.5" HDD or 1x2.5" HDD, 1 slim ODD
	Micro: 1 M.2 2230 slot for wireless 1 M.2 2230/2280 slot for storage 1 SATA slot - 1x2.5" HDD
Primary Hard Drive <sup>1.5</sup>	<ul> <li>3.5-inch, 500 GB, 7200 RPM, SATA HDD (Tower and Small Form Factor only)</li> <li>3.5-inch, 1TB, 7200 RPM, SATA HDD (Tower and Small Form Factor only)</li> <li>3.5-inch, 2 TB, 7200 RPM, SATA HDD (Tower and Small Form Factor only)</li> <li>3.5-inch, 4 TB, 5400 RPM, SATA HDD (Tower and Small Form Factor only)</li> <li>2.5-inch, 500 GB, 5400 RPM, SATA HDD (Micro only)</li> <li>2.5-inch, 256 GB, 7200 RPM, SATA HDD (All form factors)</li> <li>2.5-inch, 1TB, 7200 RPM, SATA HDD (All form factors)</li> <li>2.5-inch, 1TB, 7200 RPM, SATA HDD (All form factors)</li> <li>2.5-inch, 1TB, 7200 RPM, SATA HDD (All form factors)</li> <li>2.5-inch, 1TB, 7200 RPM, SATA HDD (All form factors)</li> <li>2.5-inch, 2 TB, 5400 RPM, SATA HDD (All form factors)</li> <li>2.5-inch, 2 TB, 5400 RPM, SATA HDD (All form factors)</li> <li>2.5-inch, 500 GB, Gen 3 PCle x4 NVMe, Class 35 SSD (All form factors)</li> <li>M.2 2230, 256 GB, Gen 3 PCle x4 NVMe, Class 35 SSD (All form factors)</li> <li>M.2 2280, 256 GB, Gen 3 PCle x4 NVMe, Class 35 SSD (All form factors)</li> <li>M.2 2280, 256 GB, Gen 3 PCle x4 NVMe, Class 35 SSD (All form factors)</li> <li>M.2 2280, 256 GB, Gen 3 PCle x4 NVMe, Class 35 SSD (All form factors)</li> <li>M.2 2280, 256 GB, Gen 3 PCle x4 NVMe, Class 35 SSD (All form factors)</li> <li>M.2 2280, 256 GB, Gen 3 PCle x4 NVMe, Class 35 SSD (All form factors)</li> <li>M.2 2280, 256 GB, Gen 3 PCle x4 NVMe, Class 35 SSD (All form factors)</li> <li>M.2 2280, 256 GB, Gen 3 PCle x4 NVMe, Class 40 SSD (All form factors)</li> <li>M.2 2280, 256 GB, Gen 3 PCle x4 NVMe, Opal Self-Encrypting Class 40 SSD (All form factors)</li> <li>M.2 2280, 256 GB, Gen 3 PCle x4 NVMe, Opal Self-Encrypting Class 40 SSD (All form factors)</li> </ul>

### OPTIPLEX 3080 TOWER, SMALL FORM FACTOR AND MICRO

Primary Hard Drive <sup>1,5</sup>	M.2 2280, 512 GB, Gen 3 PCIe x4 NVMe, Opal Self-Encrypting Class 40 SSD (All form factors) M.2 2280, 1 TB, Gen 3 PCIe x4 NVMe, Class 40 SSD (All form factors) M.2 2280, 2 TB, Gen 3 PCIe x4 NVMe, Class 40 SSD (Micro only)			
M.2 2280, 1 TB, Gen 3 PCle x4 NVMe, Opal Self-Encrypting Class 40 SSD (Micro only) Intel <sup>®</sup> Optane <sup>™</sup> Memory 32GB + Intel <sup>®</sup> NVMe QLC 512 SSD Memory				
Chassis	Form Factor	Tower	Small Form Factor (SFF)	Micro
	Dimensions (H x W x D)	Front Height: 12.77 in. (324.30mm) Rear Height: 12.77 in. (324.30mm) Width: 6.06 in. (154.00mm) Depth: 11.50 in. (292.20mm)	Front Height: 11.42 in. (290.00 mm) Rear Height: 11.42 in. (290.00 mm) Width: 3.65 in. (92.60 mm) Depth: 11.53 in. (292.80 mm)	Front height: 7.16 in. (182.00 mm) Rear height: 7.16 in. (182.00 mm) Width: 1.42 in. (36.00 mm) Depth: 7.03 in. (178.56 mm)
	Min. Weight (lbs/kg)	11.79 lb (5.35 kg)	11.07 lb (5.02 kg)	3.04 lb (1.38 kg)
	Power Supply <sup>1,6</sup>	260 W typical 85% Efficient PSU (80 PLUS Bronze) 260 W typical 92% Efficient PSU (80 PLUS Platinum)	200 W typical 85% Efficient PSU (80 PLUS Bronze) 200 W typical 92% Efficient PSU (80 PLUS Platinum)	65 W, 4.5 mm external PSU (for 35W CPU)
Recommended accessories	Monitors: Qualified with select Dell UltraSharp, Professional, and E-series monitors Keyboards: Dell wired keyboard with multimedia functionality, Dell smart card keyboard, Dell wireless keyboard Mouse: Dell wired mouse, Dell wireless mouse, Dell laser mouse, Dell wired fingerprint reader mouse Audio Speakers: Internal Dell business audio speaker, Dell stereo speaker systems, Dell sound bar for select flat-panel displays, Dell wireless speaker system Audio Headsets: Dell pro stereo headsets Micro Mounting Options: Micro Vertical Stand, Micro VESA Mount, Micro Dual VESA Mount, Micro All-in-One Stand, Micro All-in-One Mount for E Series Displays, Micro DVD+/-RW Enclosure Small Form Factor Mounting Option: Small Form Factor All-in-One Stand (Coming Soon)			
Productivity Software	Microsoft® Office Hom	Microsoft® Office 30 Day Trial Microsoft® Office Home and Business 2019 Microsoft® Office Professional 2019		
Software Security	Absolute Control (Pro) 1 Year, Absolute Control (Pro) 3 Years, Absolute Resilience (Prem) 3 Years, Absolute Resilience 1 Year, Absolute Visibility (Std) 1 Year, Absolute Visibility (Std) 3 Years Dell Encryption Enterprise 1 Year, Dell Encryption Enterprise 2 Years, Dell Encryption Personal 1 Year, Dell Encryption Personal 3 Years, Emergency Incident Response, Encryption-SED HDD (Opal FIPS), Endpoint Detection and Response (EDR), Incident Management Retainer, Intel® Guard Technologies & Secure Key: Software Guard (SGX), Data Guard (vPro only), Boot Guard, BIOS Guard (Core CPU's only), OS Guard (Core CPU's only) and Secure Key (15 or greater only), Intel® Runtime BIOS Resilience (Copper Point) with attestation via Nifty Rock + Intel® TXT, Local HDD data wipe via BIOS ("Secure Erase"), Managed Endpoint Detection and Response, McAfee® Small Business Security 12-month subscription, McAfee® Small Business Security 30 Day Free Trial, McAfee® Small Business Security 36 month Subscription, Next Generation Antivirus (NGAV) OpenXT validation required, SafeData, SafeGuard and Response (powered by VMware Carbon Black and Secureworks), Support of Absolute Persistent Module BIOS agent v2, Threat Detection and Response (TDR), VMware Carbon Black Cloud Endpoint Standard NGAV, B-EDR, 1 Year, VMware Carbon Black Cloud Endpoint Standard NGAV, B-EDR, 3 Years, VMware Carbon Black Cloud Endpoint Standard NGAV, B-EDR+Secureworks TDR (Data center housed in US) 1 Year, VMware Carbon Black Cloud Endpoint Standard NGAV, B-EDR+Secureworks TDR (Data center housed in US) 3 Years			
Hardware Security	SafeBIOS: includes Dell Off-host BIOS Verification, BIOS Resilience, BIOS Recovery, and additional BIOS Controls; SafeID credential protection; Trusted Platform Module (TPM) 2.0 <sup>7</sup> , Microsoft <sup>®</sup> Windows 10 Device Guard and Credential Guard (Enterprise SKU), Microsoft <sup>®</sup> Windows Bitlocker, Local hard drive data wipe through BIOS (Secure Erase), Self-Encrypting Storage Drives (Opal, FIPS), China TPM, Intel <sup>®</sup> Secure Boot, Intel <sup>®</sup> Authenticate, <b>Physical Security Options:</b> 1 Kensington security-cable slot, 1 Padlock loop, Chassis lock slot support, Chassis Intrusion Switch, Lockable Cable Covers, Smart Card Keyboard (FIPS)			
Systems Management Options	Dell Client Command S	uite for In-Band Systems Management		
Regulatory <sup>9,10</sup>		igurations available, ENERGY STAR qualif a, Eco-label, EU RoHS, China RoHS	ïed configurations available, CEL, WE	EE, Japan Energy Law, South Korea
Warranty	ProSupport with Next	3 Years Hardware Service with Onsite/In-Home Service after Remote Diagnosis <sup>11</sup> , warranty extensions up to 5 years ProSupport with Next Business Day Onsite Service is available to complement certain warranty options ProSupport Plus for Client is available to complement certain warranty options. <sup>12</sup>		
Accidental Damage Services <sup>13</sup>	Accidental Damage Se	rvice is available to complement certain w	varranty options from 3-5 years	
Configuration Services	Factory Image load, BIOS Customization, Hardware Customization, Asset Tagging and Reporting.			

# ThinkCentre M80q

Lenovo is more than your partner in PCs—we're your partner in providing a better employee experience. As the pioneer in compact desktops, we can help you inspire creativity, spark innovation, increase productivity, and assure a better computing experience even as modern workspaces change and shrink.

The all-new ThinkCentre M80q does all of this. Its Tiny, 1L form factor allows it to fit in almost any office or customer-facing environment, yet ThinkCentre M80q delivers the speed, power, and performance of a full-size desktop with up to Intel® Core<sup>™</sup> i9 vPro® processors. Users can connect to up to three displays and mount the device under desks, on walls, or inside Tiny-in-One (TIO) for improved productivity, ergonomics, and more cost-effective upgrades. Lenovo ThinkShield and the Intel® vPro® platform offer comprehensive security and proactive manageability capabilities.



### **ThinkCentre M80q**



#### **IMPRESSIVE PERFORMANCE**

This Tiny desktop boasts up to Intel® Core<sup>™</sup> i9 vPro® processors, up to two DDR4 SODIMM (2933MHz), and dual punch-outs that allow users to configure ThinkCentre M80q to meet their needs.

#### SECURITY INSIDE AND OUT

ThinkCentre devices allow your employees to innovate fearlessly with the reinforced security of ThinkShield, the most comprehensive, end-to-end security solution on the market that combines industry-leading hardware, software, services, and processes to protect your ideas and your business. ThinkCentre M80q has built-in ThinkShield features, including a TPM 2.0 chip, in addition to many more security features that can be customized to meet your unique needs. The Intel vPro® platform brings together the best of Intel innovations, so you can accelerate business productivity, better safeguard data and assets, and gain long-term stability. Meanwhile, a Kensington™ Cable Lock slot keeps thieves from literally walking away with your data.



#### IMPROVED PRODUCTIVITY

ThinkCentre M80q includes productivity-boosting innovations, like Smart Power On, which allows users to turn on the desktop using a simple keyboard shortcut even when the power button is not accessible. Users can connect ThinkCentre M80q to up to three displays for multitasking, while a USB-C port on the front panel offers fast charging and quick data sharing.



#### EASY EXPANDABILITY

ThinkCentre M80q is designed to grow with your business. Connect to legacy peripherals—the possibilities are endless.



#### COMPREHENSIVE MANAGEABILITY

Comprehensive Manageability: ThinkCentre M80q is easy to deploy, upgrade, and manage thanks to features like built-in driver support for older OS versions. The Intel vPro® platform is built for business, so you have the assurance that you're getting everything you need to run productively, more securely, and cost-effectively, 24/7. Toolless access to the SSD and memory module make expansion and maintenance fast and efficient.



#### ENHANCED USER EXPERIENCE

ThinkCentre M80q is designed with people—and shrinking workspaces—in mind. Its sleek, modern design and compact 1L form allow this Tiny PC to fit seamlessly into modern offices, healthcare, finance, or retail environments either sitting out, mounted out of sight, or bundled with Tiny-in-One (TIO).



# Lenovo

### purposeful design

ThinkCentre M80q enhances the computing experience with practical features like Smart Power On, which allows users to turn on the desktop using a simple keyboard shortcut. This is especially useful when ThinkCentre M80q—and its power button—are bundled inside TIO.

### relentless innovation

We are inspired by our customers and what they want from our devices. It shows in the variety of mounting options we offer for ThinkCentre M80q and the added value this device presents when bundled with TIO. This combination allows businesses to upgrade monitors and PCs separately to save budget and offers users an even more clutter-free, space-saving design.

### trusted quality

Lenovo's dedication to constantly improving product quality means rigorous testing for durability and reliability, which results in our products achieving one million hours mean time between failure. In addition to our extensive in-house testing for real-world challenges, ThinkCentre M80q is tested against MIL-STD methods and procedures.









### performance

#### PROCESSOR

10<sup>th</sup> Generation Intel<sup>®</sup> Core<sup>™</sup> i5 Processor **OPERATING SYSTEM** Windows 10 Pro 64 bit Education

MEMORY 16GB DDR4 SODIMM 2933MHz

**PSU** 135W 89% Adapter 90W 89% 65W 89%

### security

TPM 2.0 chip BIOS-based Smart USB Protection Intel® vPro® Platform Kensington" Cable Lock

### connectivity

FRONT PORTS 1x USB 3.2 Gen 2

1x USB 3.2 Gen 1 Type-C 1x Combo

#### REAR PORTS

2x USB 3.2 Gen 2 2x USB 3.2 Gen 1 DP + HDMI 2x Punch Out (serial/DP/HDMI/Type-C/ VGA+serial port/2x USB 3.2 Gen 1/2x DP1.2) 1x LAN

#### EXPANSION SLOT

1x M.2 2280 for PCIe SSD 1x M.2 2230 for WiFi

INTERNAL BAY 1x 2.5" HDD

**EXTERNAL BAY** Optional ODD box



WiFi 6 (WLAN 802.11 AX)



design

EOU

Yes

DIMENSIONS

1.32kg/2.91lbs

Yes. 10 items

WEIGHT

MIL-SPEC

179 x 36.5 x 182.9 mm

manageability

green certifications

optional services

can focus on your work, not your IT.

managed from start to finish.

ACCIDENTAL DAMAGE PROTECTION (ADP)

and lower the cost of ownership over time.

Lenovo offers a comprehensive portfolio of services to support and protect your ThinkCentre investment—so you

Provides direct access to skilled and experienced Lenovo

support. Gives you a consistent point of contact within

technicians offering comprehensive hardware and software

Lenovo to ensure that your case resolution is professionally

Prevents the hassles of unexpected repair costs. Provides

WARRANTY EXTENSION (1-YEAR BASE, UP TO 3 YEARS TOTAL)

This fixed-term, fixed-cost service helps you accurately

budget for PC expenses, protect your valuable investment,

coverage for non-warranted damage incurred under normal

operating conditions, such as minor spills, drops, or damage.

3 Independent Monitors Smart Power On

TÜV Low Noise Certification

Intel<sup>®</sup> vPro<sup>®</sup> Platform

Energy Star<sup>®</sup> 8.0

PREMIER SUPPORT

EPEAT<sup>™</sup> Gold

ERP LOT3

TCO 8.0

RoHS

intel

CORE is

### accessories



#### THINKCENTRE TINY VESA MOUNT II

The ThinkCentre Tiny VESA Mount II is uniquely designed to house the Tiny PC. This versatile mount device can be used separately or combined with other options for a secure mounting functionality.



#### THINKCENTRE TINY SANDWICH KIT II

The Tiny Sandwich Kit II is a mechanical bracket that enables more desktop and floor space while providing a secure solution to protect your Tiny PC. This attractive space-saving solution is constructed of high-grade steel and mounts easily. The open architecture provides easy access to various ports and control buttons of your ThinkCentre Tiny PC.



#### THINKCENTRE TINY IV DVD BURNER KIT

The ThinkCentre Tiny IV DVD Burner Kit provides excellent read/write capabilities using SATA interfaces for speedy execution. You just need to insert this DVD Burner to the VESA Mount to enjoy crisp, clear DVD playback and reliable DVD recording with your ThinkCentre Tiny DVD solution.

©2020 Lenovo. All rights reserved. Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB . These products are available while supplies last. Prices shown are subject to change without notice. For any questions concerning price, please contact your Lenovo Account Executive. Lenovo is not responsible for photographic or typographic errors. Warranty: For a copy of applicable warranties, write to: Warranty Information, 500 Park Offices Drive, RTP, NC 27709, Attn: Dept. ZPYA/B600. Lenovo makes no representation or warranty regarding third-party products or services. Trademarks: Lenovo, the Lenovo logo, Rescue and Recovery. ThinkPad, ThinkCentre, ThinkStation, ThinkVantage, and ThinkVision are trademarks or registered trademarks of Lenovo. Microsoft, Windows, and Vista are registered trademarks of Microsoft Corporation. Intel, the Intel logo, Intel Inside, Intel Core, and Core Inside are trademarks of Intel Corporation in the U.S. and/or other countries. Other company, product and service names may be trademarks or service marks of others.

# Lenovo ThinkPad T14s GEN 1

The ThinkPad T14s offers professionals in the field a thinner, lighter alternative to the ThinkPad T14 that packs just as much power and premium features. With enhanced processors, memory, storage, audio, and display options, the ThinkPad T14s raises the bar for performance, speed, and audiovisual experience in a laptop often referred to as the "corporate gold standard."

Along with improved security, the ThinkPad T14s improves productivity with new UC features like one-touch calling on the function row and the ability to wake from sleep in one second and be able to connect to the web a second later. If you're looking for a heavyweight laptop that won't weigh you down, the ThinkPad T14s is the smarter option for you. Smarter technology for all Lenovo



# Lenovo

### Lenovo ThinkPad T14s GEN 1



#### ALWAYS ON, ALWAYS CONNECTED

The ThinkPad T14s includes productivity enhancing features like Modern Standby, which enables the machine to wake in one second and connect to the internet one second later, and Wake On Voice, which allows you to wake the machine via voice command with the lid open. It's also part of the new generation of devices built for WiFi 6.1,



#### NEW FEATURES AT YOUR FINGERTIPS

The ThinkPad T14s enables you to conference in from anywhere with new UC functions on the F9 through F11 keys that enable you to make calls directly from your laptop with the touch of a button.



#### FUN MEETS FUNCTION

The ThinkPad T14s is designed to make work a pleasure and downtime even more so with display options that include a stunning HDR 4K IPS screen paired with a Dolby<sup>®</sup> Audio<sup>™</sup> Speaker System that creates an enhanced audiovisual experience.

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#### SMARTER SECURITY

An updated suite of ThinkShield security solutions built into the ThinkPad T14s keeps your data and your device protected. In addition, there's also an option of a brighter, 500nit FHD IPS PrivacyGuard with PrivacyAlert on-cell touch display that offers a richer, interactive viewing experience for you while that preventing shoulder surfers from seeing your data.



### performance

The ThinkPad T14s is built to perform with up to 10<sup>th</sup> Generation Intel<sup>®</sup> Core<sup>™</sup> i7 processors, up to 32GB DDR4 (2667MHz<sup>2</sup>) memory, and up to 2TB of storage.

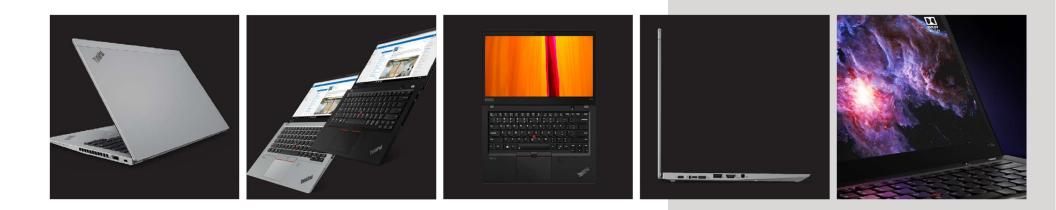
### connectivity

Thanks to features like Modern Standby—wake in one second, connect to the web in another and WiFi 6<sup>1</sup> capability, the ThinkPad T14s is always ready to go.

#### security

Enhanced ThinkShield features, including a brighter touchscreen display with PrivacyGuard screen,<sup>1</sup> keep your machine and your data secure.

'Optional 2CPU constrains 32000MHz to perform at 2667MHz.



#### Lenovo ThinkPad T14s GEN 1

### performance

#### PROCESSOR

10<sup>th</sup> Generation Intel® Core™ i5 Processor

#### **OPERATING SYSTEM** Windows 10 Pro Education

**GRAPHICS** Integrated Intel® UHD Graphics

**CAMERA** HD + IR camera<sup>1</sup> with ThinkShutter

**MEMORY** 16GB DDR4 (2667Mhz)<sup>3</sup>

STORAGE 256GB PCIe SSD

**BATTERY** Up to 20 hours,<sup>2</sup> 57Whr battery

#### AC ADAPTER

Up to Type-C 65W (supports RapidCharge)

AUDIO Dolby® Audio™

Dolby® Audio™ Speaker System 2x Far Field Microphones

### connectivity

INPUT/OUTPUT PORTS 2x USB 3.1 Type A 2x USB Type C (1 x Thunderbolt™ 3) 1x uSD Card 1x HDMI 1.4 1x Audio (Headphone and Microphone Combo Jack)

WIFI WiFi 6 WLAN 802.11 AX LTE CAT9 and 16<sup>1</sup>

NFC Yes<sup>1</sup>

#### DOCKING

Thunderbolt™ 3 USB 3.0 Dock Side mechanical dock

### security

Match on Chip touch Fingerprint Reader<sup>1</sup> dTPM 2.0 chip ThinkShutter camera cover ThinkPad PrivacyGuard1 Kensington™ lock slot



#### DISPLAY

14" FHD IPS (250nit)
14" FHD IPS On-Cell Touch (300nit)
14" FHD IPS Low Power (400nit)
14" FHD IPS PrivacyGuard On-Cell Touch (500nit)
14" HDR 4K IPS (500nit)

#### DIMENSIONS (W X D X H)

329 x 225.8 x 16.1 mm (Black: WQHD, Low Power FHD) 328.8 x 226.15 x 16.7 mm (Black: FHD, FHD Touch, PrivacyGuard) 329.15 x 226.45 x 17.2 mm (Silver: All displays)

WEIGHT

Starting at 1.27kg/2.81lbs.

#### KEYBOARD

Backlit keyboard with new UC functions for F9-F11

COLORS

Black Silver

### optional services

Lenovo offers a comprehensive portfolio of services to support and protect your ThinkPad investment—so you can focus on your work, not your IT.

#### PREMIER SUPPORT

Provides direct access to skilled and experienced Lenovo technicians offering comprehensive hardware and software support. Gives you a consistent point of contact within Lenovo to ensure that your case resolution is professionally managed from start to finish.

#### ACCIDENTAL DAMAGE PROTECTION (ADP)

Prevents the hassles of unexpected repair costs. Provides coverage for non-warranted damage incurred under normal operating conditions, such as minor spills, drops, or damage to the integrated screen.

#### WARRANTY EXTENSION (1-YEAR BASE, UP TO 3 YEARS TOTAL)

This fixed-term, fixed-cost service helps you accurately budget for PC expenses, protect your valuable investment, and lower the cost of ownership over time.

Voptional Based on testing with MobileMark 2014. Battery life varies significantly with settings, usage, and other factors. \*CPU constrains 32000MHz to perform at 2667MHz.



### accessories



#### THINKPAD DOCKING STATION PN: Varies by country

Available in basic, pro, and ultra models, ThinkPad Docking Stations provide large enterprise ThinkPad users with a seamless docking experience. The innovative side connector offers a driverfree way to connect conveniently and securely to a range of USB accessories and external displays, while rapid charging support and a mirrored power button make it easy to unlock and go.



LENOVO PROFESSIONAL WIRELESS KEYBOARD & MOUSE COMBO PN: Varies by country

This combo allows you to connect both keyboard and mouse using only one nano USB wireless receiver. The slim, wireless keyboard has a responsive key feeling, and includes an adjustable tilt leg, numeric keypad, and spill resistant design. The full-size wireless mouse accommodates left- and right-handed users with ambidextrous five button design for four-way scrolling.



#### LENOVO 15.6-INCH COMMUTER BACKPACK PN: 4X40U45347

Sturdy enough for the great outdoors yet stylish for the modern office, this lightweight, weather-proof backpack has the versatility for both workdays and weekends. It keeps your notebook, electronics, and accessories organized and protected in one compartment, while clothes and shoes fit neatly in a separate wet/dry ventilation compartment. A back panel security pocket, trolley strap, and removable shoulder straps round out the features that make this ideal for professionals on the move.

©2020 Lenovo. All rights reserved. Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2. These products are available while supplies last. Prices shown are subject to change without notice. For any questions concerning price, please contact your Lenovo Account Executive. Lenovo is not responsible for photographic or typographic errors. Warranty: For a copy of applicable warranties, write to: Warranty Information, 500 Park Offices Drive, RTP, NC 27709, Attn: Dept. ZPYA/B600. Lenovo makes no representation or warranty regarding third-party products or services. Trademarks: Lenovo, the Lenovo logo, Rescue and Recovery, ThinkPad, ThinkCentre, ThinkStation, ThinkVantage, and ThinkVision are trademarks or registered trademarks of Lenovo. Microsoft, Windows, and Vista are registered trademarks of Microsoft Corporation. Intel, the Intel logo, Intel Inside, Intel Core, and Core Inside are trademarks of Intel Corporation in the U.S. and/or other countries. Other company, product and service names may be trademarks or service marks of others.

Microsoft Surface Pro

# The new Surface Pro

### The most versatile laptop

A device with the versatility to let you work on your own terms. The new Surface Pro gives you everything you need in terms of performance, mobility, security and reliability. A best-inclass laptop with the creative freedom of a studio, and the convenience of a tablet. All in one.

### What it means for your business

#### Modernize your business

With a core, connected device that will enable digital-first workflows, streamline tasks, and help you project a modern face to your customers. Surface is easy to deploy and manage, and comes standard with enterprise-grade security.

#### Empower your employees

Seize the power of the group with superior collaboration tools and features. Exceptional power and performance lets your employees capture great ideas on the go.

#### Attract and retain talent

With meticulously designed, premium devices that can be personalized in a range of rich colors<sup>1</sup>.

### Discover the new Surface Pro

#### Uncompromising mobility

Now supported by LTE connectivity<sup>2</sup>, up to 50% more battery life<sup>3</sup> than Surface Pro 4, and an ultra-light design, the new Surface Pro redefines mobile working. Work from virtually anywhere.

#### Exceptional power and performance

The new Surface Pro gives you the power to run all the applications you rely on. Experience up to 20% more performance than Surface Pro 4 thanks to the latest, powerful Intel<sup>®</sup> Core<sup>™</sup> processor and bring your ideas to life with the stunningly responsive PixelSense<sup>™</sup> Display.

#### The best of Microsoft at your fingertips

Choose the laptop with all of your familiar Office 365<sup>4</sup> applications and Windows 10 security you and your customers can depend on. Enjoy fast, secured, password-free sign-in with Windows Hello. Surface Pen<sup>4</sup> and Surface Dial<sup>4</sup> help you make the most of the full, interactive Windows experience.

#### Make it your own

Reflect a premium, professional image with the new Surface Type Cover<sup>4</sup>, featuring luxurious Alcantara<sup>®</sup> fabric in a choice of rich colors<sup>1</sup>. Complete the impression with new Surface Pen<sup>4</sup> and Surface Arc Mouse<sup>4</sup> in matching colors<sup>1</sup>.

## Technical specifications

Dimensions	11.5" x 7.9" x 0.33"	Weight	m3: 1.69 lbs (768 g)	
	(292mm x 201mm x 8.5mm)		i5: 1.70 lbs (770 g)	
Display	Screen: 12.3" PixelSense™ Display		i7: 1.73 lbs (784 g)	
	Resolution: 2736 x 1824 (267 PPI)	Battery life	Up to 13.5 hours of video playback <sup>3</sup>	
	Aspect ratio: 3:2	Graphics	m3: Intel <sup>®</sup> HD Graphics 615	
	Touch: 10-point multi-touch		i5: Intel <sup>®</sup> HD Graphics 620	
Memory	4GB, <mark>8GB,</mark> or 16GB RAM		i7: Intel <sup>®</sup> Iris™ Plus Graphics 640	
Processor	7th Generation Intel® Core™ m3, <mark>i5</mark> or i7	Connections	1x full-size USB 3.0	
Security	TPM chip for enterprise security		microSDXC™ card reader	
,	Enterprise-grade protection with		Surface Connect™	
	Windows Hello face sign-in		3.5mm headphone jack	
oftware Windows 10 Pro			Mini DisplayPort	
Sensors	Ambient light sensor		Cover port	
56115013	Accelerometer	Camera, video	Windows Hello face authentication camera (front-facing)	
	Gyroscope	and audio	5.0MP front-facing camera with 1080p Skype HD video	
	5		8.0MP rear-facing autofocus camera with	
What's in the box	Surface Pro		1080p full HD video	
	Power supply		Dual microphones	
	Quick Start Guide		1.6W stereo speakers with Dolby <sup>®</sup> Audio™ Premium	
	Safety and warranty documents	Wireless	Wi-Fi: IEEE 802.11 a/b/g/n/ac compatible	
Storage	Solid state drive (SSD) options:		Bluetooth Wireless 4.1 technology	
	128GB <sup>5</sup> , 256GB <sup>5</sup> , 512GB <sup>5</sup> , or 1TB <sup>5</sup>	Exterior	Volume key and power key	
			Surface Pen <sup>₄</sup>	
			Surface Type Cover <sup>4</sup>	
			Surface Type Cover	

Warranty

### Configurations and pricing

Processor	RAM	Storage
Intel <sup>®</sup> Core™ m3 (7Y30)	4 GB	128 GB⁵
Intel <sup>®</sup> Core™ i5 (7300U)	4 GB	128 GB⁵
Intel <sup>®</sup> Core <sup>™</sup> i5 (7300U)	8 GB	256 GB <sup>5</sup>
Intel <sup>®</sup> Core™ i7 (7660U)	8 GB	256 GB⁵
Intel <sup>®</sup> Core™ i7 (7660U)	16 GB	512 GB <sup>5</sup>
Intel <sup>®</sup> Core™ i7 (7660U)	16GB	1TB <sup>5</sup>

### For more information about Surface for Business

Visit our business portfolio at microsoft.com/en-us/devices/business

Surface Mouse<sup>4</sup>

1-year limited hardware warranty<sup>6</sup>

1 Available colors vary in some markets.

- Available colors vary in some markets. LTE availability varies by market; check with service provider for details. Up to 13.5 hours of video playback. Testing conducted by Microsoft in April 2017 using preproduction Intel<sup>®</sup> Core<sup>™</sup> is, 256 GB, 8 GB RAM device. Testing consisted of full battery discharge during video playback. All settings were default except: Wi-Fi was associated with a network and Auto-Brightness disabled. Battery life varies significantly with settings, usage, and other factors. Sold constraints 3
- 4 Sold separately.
  5 System software uses significant storage space. Available storage is subject to change based on system software updates and apps usage. 1 GB=1 billion bytes. See Surface.com/Storage for more details.
  6 In the US, warranty terms vary by market.

**D&LL**Technologies

A better view from anywhere





#### COMFORT WITHOUT SACRIFICING COLOR

Optimize eye comfort with this 21.5" FHD monitor with ComfortView Plus.<sup>1</sup>



Pivot, tilt, swivel and adjust the height of your monitor to your exact preference.

# CONNECT TO PRODUCTIVITY

The 3-sided ultrathin bezel delivers a seamless view across multiple monitors, while Easy Arrange in Dell Display Manager software helps you stay organized when multitasking.



Dell monitors — World's number 1 monitor company.\* Enjoy peace of mind with Dell Premium Panel Exchange, 3 year Advanced Exchange Service<sup>2</sup> and optional ProSupport.<sup>3</sup>

# Maximize productivity



### COMFORT WITHOUT SACRIFICING COLOR

**Comfort without sacrificing color:** Optimize eye comfort with ComfortView Plus<sup>1</sup> — an always-on, built-in screen that reduces potentially harmful blue light emissions while delivering color accuracy.

**Color consistency comes standard:** See consistent, vibrant colors across a wide viewing angle enabled by In-Plane Switching (IPS) Technology. With 99% sRGB coverage, you get precise color out of the box.



Adjust to your comfort: Pivot, tilt, swivel and adjust the height of your monitor for a comfortable setup all day long. Furthermore, choose from a variety of mounts and stands, including VESA for more flexibility.

**Designed with you in mind:** Navigate the menu and adjust screen settings with the easy-to-use joystick control. Snap on the Dell Slim Soundbar (SB521A) and elevate your audio experience.

**Sleek, stylish and organized:** Hide cords in the monitor riser to keep things organized. This sleek monitor has a three-sided ultrathin bezel, small base and an improved, easy-to-use cable management system.

**Extensive connectivity:** Easily connect to a variety of devices with extensive connectivity ports, including DisplayPort, HDMI, VGA and USB.

**Quick access ports:** Easily share and deliver content via quick-access ports conveniently placed at the front of the display.

**Expand your efficiency:** The three-sided ultrathin bezel design lets you enjoy an uninterrupted view of your content across multiple monitors. And, with a Dell dual monitor set up, you can increase your productivity by up to 21%.<sup>4</sup>

More ways to multitask: Work conveniently across multiple screens and select from predefined templates with the Easy Arrange feature on Dell Display Manager software. Quickly tile and arrange your applications and get back to work faster with Auto-restore, a feature that remembers where you left off.



CONNECT TO

PRODUCTIVITY

WORLD'S NUMBER 1 MONITOR COMPANY\*

**Peace of mind:** Dell Premium Panel Exchange allows a free panel replacement during the Limited Hardware Warranty<sup>5</sup> period even if only one bright pixel is found.

**Minimize downtime:** Your monitor comes with a 3-year Advanced Exchange Service<sup>2</sup> so that if a replacement becomes necessary, it will be shipped to you the next business day during your 3-year Limited Hardware Warranty.<sup>5</sup>

**Get a higher level of support:** Upgrade to 24x7, in-region technical phone support from qualified engineers with Dell ProSupport option.<sup>3</sup>

#### Monitor

Diagonal Viewing Size Active Display Area Width Height Maximum Preset Resolution Aspect Ratio Pixel Pitch Pixel Per Inch (PPI) Brightness Color Support

Contrast Ratio Viewing Angle Response Time

Panel Type Display Screen Coating Backlight Technology ComfortView Plus with Flicker-free screen Dell Display Manager Compatibility Remote Asset Management GSA/TAA Optional Soundbar

#### Connectivity

Connectors

HDCP Support

#### **Design Features**

Adjustability Security Flat Panel Mount Interface

#### Power

AC input voltage/frequency/current Energy Efficiency Class (A to G scale) Power Consumption (Operational)

Power Consumption Stand by / Sleep

Dimensions (with stand) Height Width

Depth

#### Weight

Weight (panel only - for VESA mount/ no cables) Weight (monitor and cables with stand) Weight (with packaging)

Standard Service Plan

**Optional Service Plan** 

**Environmental Compliance** 

Dell 22 Monitor – P2222H 546.10 mm (21.5 inches)

476.06 mm (18.74 inches) 267.79 mm (10.54 inches) 1920 x 1080 at 60 Hz 16:9 0.2480 mm x 0.2480 mm 102 250 cd/m<sup>2</sup> (typical) Color gamut: sRGB 99% (typical) Color depth: 16.7 million colors 1000:1 (typical) 178º/178º 5 ms typical (Fast) (gray to gray) 8 ms (Normal mode) (gray to gray) In-Plane Switching Technology Anti-Glare White LED edgelight system Yes Yes Yes, via Dell Command I Monitor Yes SB521A

1 x HDMI 1.4 (HDCP 1.4) 1 x DisplayPort 1.2 (HDCP 1.4) 1 x VGA 1 x SuperSpeed USB 5Gbps (USB3.2 Gen1) upstream 4 x SuperSpeed USB 5Gbps (USB3.2 Gen1) HDMI HDCP 1.4 DP HDCP 1.4

Height adjustable stand (150 mm), Tilt (-5° to 21°), Swivel (-45° to 45°), Pivot (-90° to 90°) Security lock slot (cable lock sold separately) VESA (100 mm x 100 mm)

100 VAC to 240 VAC / 50 Hz or 60 Hz  $\pm$  3 Hz / 1.5 A (typical)

D 0.2 W (Off mode)<sup>6</sup> 0.3 W (Standby Mode)<sup>6</sup> 11.8 W (On Mode)<sup>6</sup> 46 W (Max.)<sup>7</sup> Less than 0.3W

481.99 mm (18.98 inches) 487.26 mm (19.18 inches) 179.57 mm (7.07 inches)

2.82 kg (6.22 lb) 4.83 kg (10.65 lb) 6.37 kg (14.04 lb)

Premium Panel Exchange, 3 Years Advanced Exchange Service<sup>2</sup> & Limited Hardware Warranty<sup>5</sup>

Dell ProSupport<sup>3</sup>

ENERGY STAR® certified monitor, EPEAT® Gold registered where applicable<sup>8</sup>, RoHS-compliant, TCO Edge Certified Displays, BFR/PVC free monitor (excluding external cables), meets NFPA 99 leakage current requirements, Arsenic-free glass and Mercury-free for the panel only.

#### What's in the box?

### • Monitor with stand

- Cables
- Power cable
- DisplayPort to DisplayPort cable (1.8m)
- VGA cable (Japan only)
- HDMI 1.4 cable (Brazil only)
- SuperSpeed USB 5Gbps (USB3.2 Gen1) upstream cable

#### Documentation

- Quick Setup Guide
- Safety and regulatory information

# Adjustability and connectivity

DELL 22 MONITOR | P2222H

#### Easily adjust the panel to your preferred viewing position.





DELL DUAL MONITOR ARM | MDA20

Quickly install this Dell Dual Monitor Arm – MDA20 for a comprehensive monitor and system mounting solution. This virtually toolfree installation makes deployment simple.



DELL PRO WIRELESS KEYBOARD AND MOUSE COMBO | KM5221W

Elevate productivity with this wireless full size narrow bezel keyboard and ambidextrous mouse combo with 3 years of battery life.



DELL SLIM SOUNDBAR | SB521A

World's slimmest and lightest soundbar<sup>9</sup> offers exceptional audio clarity and magnetically attaches to Dell monitors<sup>10</sup> offering a clean desk experience.

- \* Dell monitors are #1 Worldwide for 7 consecutive years (2013, Q2 to 2020, Q4)! Source: IDC Worldwide Quarterly PC Monitor Tracker, Q4 2020.
- 1 TÜV Certified Low Blue Light Hardware Solution and Flicker Free (ID 1111236827, ID 1111236528). For more details, visit www.tuv.com. 2 Advanced Exchange: Dell will send you a replacement monitor the next business day in most cases, if deemed necessary after phone/online diagnosis. Shipping times may vary by
- location and for monitors 55" and above. Fee charged for failure to return defective unit. See dell.com/servicecontracts/global
- 3 Availability varies, please visit www.dell.com/support for details.
- 4 Source: Based on Principled Technologies Report commissioned by Dell, "Improve productivity with the new Dell P Series monitors in a dual-display configuration", November 2018, comparing Dell 24 USB-C Monitor P2419H/HC and Dell 24 Monitor P2414H/HC. Actual results will vary. Full report: https://www.principledtechnologies.com/Dell/P2419H\_monitor\_productivity\_1118.pdf
- 5 For a copy of the Limited Hardware Warranty, write to Dell USA LP, Attn: Warranties, One Dell Way, Round Rock, TX 78682 or see dell.com/warranty.
- 6 As defined in EU 2019/2021 and EU 2019/2013.
- 7 Maximum brightness and contrast setting with maximum power loading on all USB ports.
- 8 EPEAT registered where applicable. EPEAT registration varies by country. See www.epeat.net for registration status by country.
- 9 Based on Dell analysis of publicly available specs of comparative attachable monitor soundbars, July 2020.
- 10 Compatible with select Dell monitors only. Please refer to the Dell Slim Soundbar SB521A compatibility list on dell.com.

#### Dell.com/monitors

Product availability varies by country. Please contact your Dell representative for more information.

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### Targus

### **USB-C UNIVERSAL DUAL VIDEO 4K** DOCKING STATION WITH 100W POWER

### QUICK START GUIDE

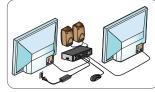
410-3723-001A / DOCK190USZ

#### Contents

- Targus USB-C Universal Dual Video 4K Docking
- Station with 100W Power
- USB-C Cable
- AC Power adapter
- USB-C to USB-A adapter with Tether
- DC Output Cable
- Power Tips 3A, 3H, 3H2, 3I2, 3P, 3W, 3X9
- USB-C mount bracket (for selected models)

#### **Workstation Setup**

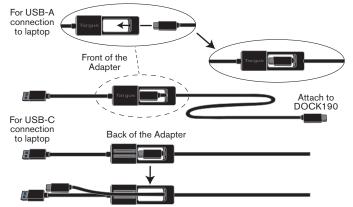
1. Connect all peripheral devices to the docking station



2. Connect the Targus Universal Docking Station to your host device.



3. If your host device does not connect via USB-C, use the included USB-C to USB-A adapter as shown below.





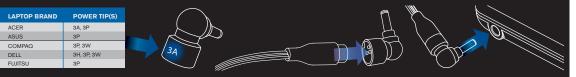
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1.Locate the correct power tip (test fit in laptop if needed) 2. Connect to the power cord

3. Connect to your laptop and docking station

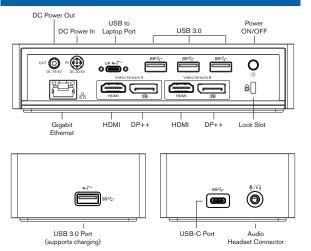


LAPTOP BRAND	POWER TIP(S)	LAPTOP BRAND	POWER TIP(S)
ACER	3A, 3P	GATEWAY	3A, 3P
ASUS	3P	HP	3H2, 3P, 3W
COMPAQ	3P, 3W	IBM/LENOVO	3I2, 3P, 3X9
DELL	3H, 3P, 3W	TOSHIBA	3P
FUJITSU	3P		

#### **Specifications**

- 2 x DisplayPort (DP++; DP1.2) / HDMI Port (HDMI 2.0)
- 4 x USB 3.0 downstream ports (port marked with ← supports BC 1.2 and iOS device charging at 2.4A max)
- 1 x USB-C upstream port with supporting Power Delivery 2.0 Profile 5 (up to 100W max. charging)
- 1 x USB-C downstream port (USB 3.0, data transfer only)
- Gigabit Ethernet
- Audio In/Out ports (3.5mm headset connector)
- Security lock slot
- USB-C cable
- LED Power Indicator
- Power ON/OFF button
- DC Power In: 20.5V, 150W
- DC Power Out: 19.5V 90W max

#### **Docking Station Diagram**



#### **System Requirements**

Hardware

- Thunderbolt 3 or USB-C port
- Power Delivery charging support requires host computer support Power Delivery 2.0 charging (up to 100W max)
- Operating System (any of the following)
- Microsoft Windows<sup>®</sup> 7, Windows<sup>®</sup> 8, Windows<sup>®</sup> 8.1, or Windows<sup>®</sup> 10 (32/64-bit)
- Mac OS<sup>®</sup> X v10.8 or later
- Android 5.0 or later
- Chromebooks
- Ubuntu 14.04.x LTS and 16.04 LTS on x86 platform

#### Visit www.targus.com for a list of the latest compatible operating systems

#### **Windows Setup**

To ensure the best Windows performance, please be sure to update your host PC Display Adaptor and USB 3.0 Drivers. These updates are often available from your IT department or from the PC manufacturer if you have Administrator rights to download and install drivers for your PC.

Welcome to your Targus Universal Docking Station DisplayLink Manager. The DisplayLink Manager software, if not already installed, can be downloaded from a Windows Update server or from www.targus.com. It is represented by the Windows Task Tray and allows you to easily connect additional monitors to your laptop or desktop via the Targus Docking Station. Using the Windows Control Panel Display Screen Resolution window, the connected monitors can be configured to either mirror your main screen, or extend the Windows desktop allowing visibility of more applications at the same time. The DisplayLink USB Graphics devices can also be configured to be the main display.



The DisplayLink Manager allows full configuration of all additional USB displays, including: • Support for addition USB Displays in Windows 7, 8, 8.1, 10

- Support for addition USB Displays in Windows 7, 8, 8, 1, 10 and later
- Resolution up to 4096 x 2160 for Displayport or HDMI
- Display orientation and location modification
- Layout of displays

DisplayLink software also provides drivers for Sound and Ethernet built-in. These can also be selected in the Windows Control Panel.

#### **OS-X Setup**

Upon installation of the DisplayLink software for OS-X available at www.targus.com, Macbook users can use the System Preferences for Displays to adjust the external monitors. OS-X allows configuration of all additional USB displays, including:

- Support for additional USB Displays in OS-X 10.9 or later
- Resolution up to 4096 x 2160 for Displayport or HDMI
- Display orientation and location modification
- Layout of displays

DisplayLink software also provides drivers for Sound and Ethernet built-in.



#### **Android Setup**

Install the DisplayLink Desktop application for Android 5.0 and later from the Google Play Store. Enable USB Debugging/Host mode on your Android device.

#### **Technical Support**

#### For technical questions, please visit:

US	Internet: http://targus.com/us/support
Australia	Internet: http://www.targus.com/au/support
	Email: infoaust@targus.com
	Telephone: 1800-641-645
New Zealand	Telephone: 0800-633-222
Latin America	Email: soporte@targus.com

#### **Product Registration**

Targus recommends that you register your Targus accessory shortly after purchasing it. Go to:

http://targus.com/us/product\_registration

You will need to provide your full name, email address, country of residence and product information.

#### **Regulatory Compliance**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operations.

#### FCC Statement (Tested to Comply)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

This device may not cause harmful interference, and

This device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
  Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

#### **Declaration of Conformity**

Hereby, Targus declares that this device is in compliance with the essential requirements and other relevant provisions of Directive: 2014/30/EU and 2014/35/EU.

#### Three Year Warranty

We pride ourselves on the quality of our products. For complete warranty details and a list of our worldwide offices, please visit www.targus.com. Targus product warranty does not cover any device or product that is not manufactured by Targus (including, but not limited to, laptops, smartphones, devices, or any other product that may be used in connection with the Targus product). Australian customers: For complete warranty details see warranty statement enclosed.

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AUSTRALIAN AND NEW ZEALAND CONSUMERS ONLY

Thank you for your purchase. Targus warrants to the original purchaser that its products are free from defects in materials and workmanship, during the specified warranty period, and lasts as long as the original purchaser owns the product. The warranty period is stated on the packaging or in the documentation provided with this Targus product. Targus' Limited Product Warranty excludes damage caused by accident, neglect, abuse, misuse, improper care, normal wear and tear, ownership transfer, or alteration. The limited warranty also excludes any product that is not manufactured by Targus (including, without limitation, laptops, smartphones, devices, tablets, or any other non-Targus item) that is used in connection with the Targus product.

In the event that the Targus product has a defect in materials or workmanship Targus will, after receiving a warranty claim and inspecting the product, at its discretion, do one of the following: repair, replace, or refund with the same or a similar product (or part) of no lesser quality and ship it to the original purchaser at Targus' expense. As part of this inspection, proof of purchase will be required. There is no charge for inspection. To make a warranty claim, please contact Targus Australia or New Zealand (see details below), or return the product to the place of purchase. The original purchaser must bear the cost of the delivery to Targus.

Under Australian and/or New Zealand Consumer Laws, in addition to any warranty Targus gives, our products come with guarantees that cannot be excluded. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are entitled to have the products repaired or replaced if they fail to be of acceptable quality and the failure does not amount to a major failure.

For any warranty question, contact Targus Australia Pty. Ltd. (i) by mail at Suite 2, Level 8, 5 Rider Boulevard, Rhodes NSW 2138, by phone AUS 1800 641 645 or NZ 0800 633 222 or by Email: infoaust@targus.com. For additional information, check out our website at targus.com/au/warranty.