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DELL računar OptiPlex 7020 Plus MT i7-14700 Win11Pro

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OptiPlex Small Form Factor Plus 7020

Technical Guidebook

Regulatory Model: D17S
Regulatory Type: D17S005
February 2024
Rev. A00

DELL Technologies

Notes, cautions, and warnings

NOTE: A NOTE indicates important information that helps you make better use of your product.

CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

WARNING: A WARNING indicates a potential for property damage, personal injury, or death.

Contents

1

Views of OptiPlex Small Form Factor Plus 7020

Front

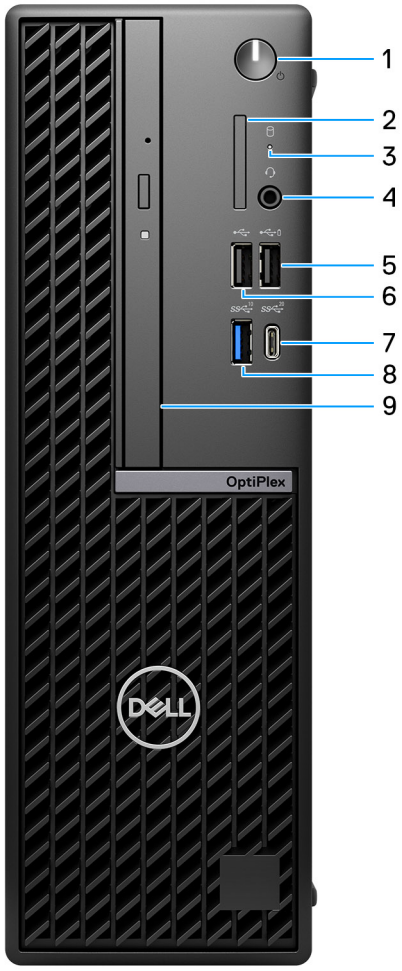

Figure 1. Front view

1. **Power button with diagnostic LED**

   Press to turn on the computer if it is turned off, in Sleep state, or in Hibernate state.

   When the computer is turned on, press the power button to put the computer into Sleep state; press and hold the power button for four seconds to force shut-down the computer.

   NOTE: You can customize the power-button behavior in Windows.

Indicates the power-supply state.

2. **SD-card slot (optional)**

   Reads from and writes to the SD card.

3. **Hard-drive activity light**

   The activity light turns on when the computer reads from or writes to the hard drive.

4. **Universal audio port**

   Connect headphones or a headset (headphone and microphone combo).

5. **USB 2.0 (480 Mbps) with PowerShare port**

   Connect devices such as external storage devices and printers. Provides data transfer speeds of up to 480 Mbps.

   NOTE: PowerShare enables you to charge your USB devices even when your computer is turned off.

   NOTE: If a USB device is connected to the PowerShare port before the computer is turned off or in hibernate state, you must disconnect and connect it again to enable charging.

6. **USB 2.0 (480 Mbps) port**

   Connect devices such as external storage devices and printers. Provides data transfer speeds of up to 480 Mbps.

7. **USB 3.2 Gen 2x2 (20 Gbps) Type-C port**

   Connect devices such as external storage devices and printers. Provides data transfer speeds of up to 20 Gbps.

   NOTE: This port does not support video/audio streaming.

8. **USB 3.2 Gen 2 (10 Gbps) port**

   Connect devices such as external storage devices and printers. Provides data transfer speeds of up to 10 Gbps.

9. **Slim optical drive (optional)**

   Reads from and writes to CDs and DVDs.

Back

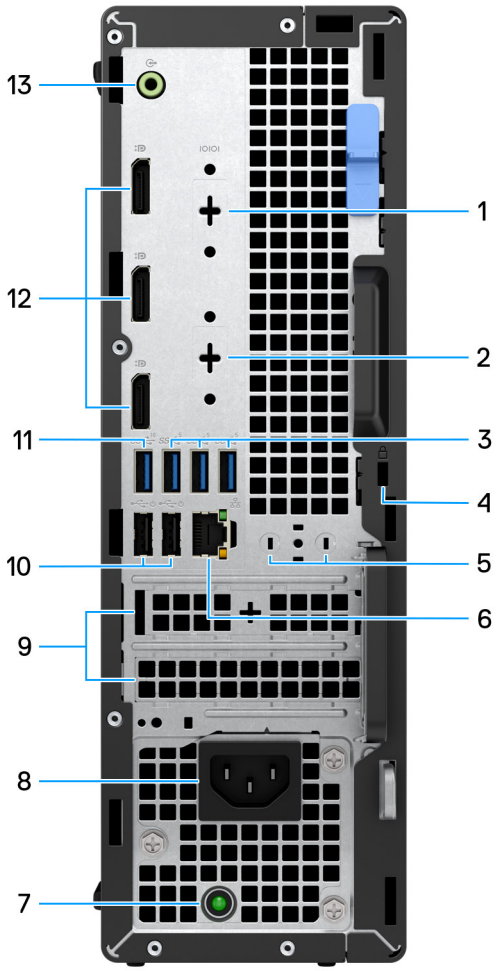

Figure 2. Back view

1. **Serial port (optional)**

   Connect serial I/O devices.

2. **Optional port (HDMI 2.1/DisplayPort 1.4a (HBR3 support)/VGA/USB 3.2 Gen 2 (10 Gbps) Type-C port with DisplayPort)**

   The port available at this location may vary depending on the optional I/O card that is installed on your computer.

   - **HDMI 2.1 port**

     Connect to a TV, external display, or another HDMI-in enabled device. Maximum resolution supported up to 4096x2160 @60Hz.

   - **DisplayPort 1.4a (HBR3 support)**

     Connect an external display or a projector. Maximum resolution supported up to 5120x3200 @60Hz.

   - **VGA port**

     Connect an external display or a projector. Maximum resolution supported up to 1920x1200 @60Hz.

- **USB 3.2 Gen 2 (10 Gbps) Type-C port with DisplayPort**

  Connect devices such as external storage devices and printers. Provides data transfer speeds of up to 10 Gbps. Maximum resolution supported up to 5120x3200 @60Hz with a Type-C to DisplayPort adapter.

3. **Three USB 3.2 Gen 1 (5 Gbps) ports**

   Connect devices such as external storage devices and printers. Provides data transfer speeds of up to 5 Gbps.

4. **Security-cable slot (for Kensington locks)**

   Connect a security cable to prevent unauthorized movement of your computer.

5. **External antenna slot**

   Connect an external antenna for better connectivity.

6. **Network port**

   Connect an Ethernet (RJ45) cable from a router or a broadband modem for network or Internet access.

7. **Power-supply diagnostic light**

   Indicates the power-supply state.

8. **Power-cord connector port**

   Connect a power cable to provide power to your computer.

9. **Two expansion card slots**

   Connect a PCI-Express card such as graphics, audio, or network card to enhance the capabilities of your computer.

10. **Two USB 2.0 (480 Mbps) with SmartPower On ports**

    Connect devices such as external storage devices and printers. Provides data transfer speeds of up to 480 Mbps.

    NOTE: When USB wake is enabled in the BIOS, the computer powers on or wake from hibernation when a USB mouse or keyboard that is connected to this port is used.

11. **USB 3.2 Gen 2 (10 Gbps) port**

    Connect devices such as external storage devices and printers. Provides data transfer speeds of up to 10 Gbps.

12. **Three DisplayPort 1.4a ports (HBR2 support)**

    Connect an external display or a projector.

    NOTE: The maximum resolution that is supported is up to 4096x2304 @60Hz.

13. **Retaskable line-out/line-in audio port**

    Connect recording or playback devices such as microphone or CD player.

    Connect speakers.

2

Specifications of OptiPlex Small Form Factor Plus 7020

Dimensions and weight

The following table lists the height, width, depth, and weight of your OptiPlex Small Form Factor Plus 7020.

Table 1. Dimensions and weight

Description	Values
Height	290 mm (11.41 in.)
Width	92.60 mm (3.64 in.)
Depth	292.80 mm (11.52 in.)
Weight **NOTE:** The weight of your computer depends on the configuration ordered and manufacturing variability.	• Minimum: 4.28 kg (9.43 lb) • Maximum: 5.62 kg (12.38 lb)

Processor

The following table lists the details of the processors that are supported by your OptiPlex Small Form Factor Plus 7020.

Table 2. Processor

Description	Option one	Option two	Option three	Option four	Option five
Processor type	14th Generation Intel Core i3-14100	14th Generation Intel Core i5-14500 vPro	14th Generation Intel Core i5-14600 vPro	14th Generation Intel Core i7-14700 vPro	14th Generation Intel Core i9-14900 vPro
Processor wattage	60 W	65 W	65 W	65 W	65 W
Processor total core count	4	14	14	20	24
Performance-cores	4	6	6	8	8
Efficient-cores	0	4	8	12	16
NOTE: Intel® Hyper-Threading Technology is only available on Performance-cores.					
Processor total thread counts	8	20	20	28	32
Processor speed	Up to 4.70 GHz	Up to 5 GHz	Up to 5.20 GHz	Up to 5.40 GHz	Up to 5.60 GHz
Performance-cores frequency					
Processor base frequency	3.50 GHz	2.60 GHz	2.70 GHz	2.10 GHz	2 GHz
Maximum turbo frequency	4.70 GHz	5 GHz	5.20 GHz	5.30 GHz	5.40 GHz
Efficient-cores frequency					
Processor base frequency	Not applicable	1.90 GHz	2 GHz	1.50 GHz	1.50 GHz
Maximum turbo frequency	Not applicable	3.70 GHz	3.90 GHz	4.20 GHz	4.30 GHz
Processor cache	12 MB	24 MB	24 MB	33 MB	36 MB
Integrated graphics	Intel UHD Graphics 730	Intel UHD Graphics 770	Intel UHD Graphics 770	Intel UHD Graphics 770	Intel UHD Graphics 770

Chipset

The following table lists the details of the chipset that is supported for your OptiPlex Small Form Factor Plus 7020.

Table 3. Chipset

Description	Values
Chipset	Intel Q670
Processor	14th Generation Intel Core i3/i5 vPro/i7 vPro/i9 vPro
DRAM bus width	64-bit/128-bit
Flash EPROM	32 MB RPMC+16 MB nRPMC
PCIe bus	Up to Gen4

Operating system

Your OptiPlex Small Form Factor Plus 7020 supports the following operating systems:

- Windows 11 Home
- Windows 11 Pro
- Windows 11 Pro National Education
- Ubuntu Linux 22.04 LTS

Memory

The following table lists the memory specifications of your OptiPlex Small Form Factor Plus 7020.

Table 4. Memory specifications

Description	Values
Memory slots	Four UDIMM slots
Memory type	DDR5
Memory speed	Up to 4400 MT/s
Maximum memory configuration	128 GB
Minimum memory configuration	8 GB
Memory size per slot	8 GB, 16 GB, or 32 GB
Memory configurations supported	• 8 GB, 1 x 8 GB, DDR5, 4400 MT/s, UDIMM, single-channel • 16 GB, 1 x 16 GB, DDR5, 4400 MT/s, UDIMM, single-channel • 16 GB, 2 x 8 GB, DDR5, 4400 MT/s, UDIMM, dual-channel • 32 GB, 1 x 32 GB, DDR5, 4400 MT/s, UDIMM, single-channel • 32 GB, 2 x 16 GB, DDR5, 4400 MT/s, UDIMM, dual-channel • 32 GB, 4 x 8 GB, DDR5, 4000 MT/s, UDIMM, dual-channel • 64 GB, 2 x 32 GB, DDR5, 4400 MT/s, UDIMM, dual-channel • 64 GB, 4 x 16 GB, DDR5, 4000 MT/s, UDIMM, dual-channel • 128 GB, 4 x 32 GB, DDR5, 3600 MT/s, UDIMM, dual-channel

Memory matrix

The following table lists the memory configurations supported on your OptiPlex Small Form Factor Plus 7020.

Table 5. Memory matrix

Configuration	Slot			
	UDIMM1	UDIMM2	UDIMM3	UDIMM4
8 GB DDR5	8 GB			
16 GB DDR5	16 GB			

Table 5. Memory matrix (continued)

Configuration	Slot			
16 GB DDR5	8 GB	8 GB		
32 GB DDR5	32 GB			
32 GB DDR5	16 GB	16 GB		
32 GB DDR5	8 GB	8 GB	8 GB	8 GB
64 GB DDR5	32 GB	32 GB		
64 GB DDR5	16 GB	16 GB	16 GB	16 GB
128 GB DDR5	32 GB	32 GB	32 GB	32 GB

External ports

The following table lists the external ports of your OptiPlex Small Form Factor Plus 7020.

Table 6. External ports

Description	Values
Network port	One RJ-45 port 10/100/100 Mbps
USB ports	• One USB 2.0 (480 Mbps) port • One USB 2.0 (480 Mbps) with PowerShare port • Two USB 2.0 (480 Mbps) with SmartPower On ports • Three USB 3.2 Gen 1(5 Gbps) ports • Two USB 3.2 Gen 2 (10 Gbps) port • One USB 3.2 Gen 2x2 Type-C (20 Gbps) port **NOTE:** This port does not support video/audio streaming.
Audio port	• One Universal audio port • One Re-tasking line-out/line-in audio port
Video port	• One optional port (HDMI 2.1/DisplayPort 1.4a (HBR3 support)/VGA/USB 3.2 Gen 2 (10 Gbps) Type-C port with DisplayPort) **NOTE:** The maximum resolution supported by optional port is ○ **HDMI 2.1 port:** Up to 4096 x 2160 @60Hz. ○ **DisplayPort 1.4a (HBR3 support) port:** Up to 5120 x 3200 @60Hz. ○ **VGA port:** Up to 1920 x 1200 @60Hz. ○ **USB 3.2 Gen 2 (10 Gbps) Type-C port with DisplayPort:** Up to 5120 x 3200 @60Hz. • Three DisplayPort 1.4a (HBR2 support) ports **NOTE:** The maximum resolution that is supported is up to 4096 x 2304 @60Hz.
I/O port	One serial port (optional)
Media-card reader	One SD-card 4.0 slot (optional)
Power-adapter port	Not supported

Table 6. External ports (continued)

Description	Values
Security-cable slot	• Security-cable slot (for Kensington locks) • One Padlock ring

Internal slots

The following table lists the internal slots of your OptiPlex Small Form Factor Plus 7020.

Table 7. Internal slots

Description	Values
Expansion	• One Half-height Gen4 PCIe x16 slot • One Half-height Gen3 PCIe x4 slot
M.2	• One M.2 2230 slot for Wi-Fi and Bluetooth combo card • Two M.2 2230 slots for solid-state drive • One M.2 2280 slot for solid-state drive **NOTE:** To learn more about the features of different types of M.2 cards, search in the Knowledge Base Resource at www.dell.com/support.
SATA slots	Two SATA 3.0 slot for 3.5-inch HDD and slim optical drive

Ethernet

The following table lists the wired Ethernet Local Area Network (LAN) specifications of your OptiPlex Small Form Factor Plus 7020.

Table 8. Ethernet specifications

Description	Values
Model number	Intel WGI219LM
Transfer rate	10/100/1000 Mbps

Wireless module

The following table lists the Wireless Local Area Network (WLAN) modules that are supported on your OptiPlex Small Form Factor Plus 7020.

Table 9. Wireless module specifications

Description	Option one	Option two
Model number	Intel AX211	Realtek RTL8852BE
Transfer rate	Up to 2400 Mbps	Up to 1201 Mbps
Frequency bands supported	2.4 GHz/5 GHz/6 GHz	2.4 GHz/5 GHz
Wireless standards	• WiFi 802.11a/b/g • Wi-Fi 4 (WiFi 802.11n)	• WiFi 802.11a/b/g • Wi-Fi 4 (WiFi 802.11n)

Table 9. Wireless module specifications (continued)

Description	Option one	Option two
	• Wi-Fi 5 (WiFi 802.11ac) • Wi-Fi 6E (WiFi 802.11ax)	• Wi-Fi 5 (WiFi 802.11ac) • Wi-Fi 6 (WiFi 802.11ax)
Encryption	• 64-bit/128-bit WEP • AES-CCMP • TKIP	• 64-bit/128-bit WEP • AES-CCMP • TKIP
Bluetooth wireless card	Bluetooth 5.3	Bluetooth 5.3
	NOTE: The version of the Bluetooth wireless card may vary depending on the operating system that is installed on your computer.	

Audio

The following table lists the audio specifications of your OptiPlex Small Form Factor Plus 7020.

Table 10. Audio specifications

Description	Values
Audio type	High Definition Audio
Audio controller	Realtek ALC3246-CG
Internal audio interface	High Definition Audio (HDA)
External audio interface	• One universal audio port • One retaskable line-in/line-out audio port

Storage

This section lists the storage options on your OptiPlex Small Form Factor Plus 7020.

Table 11. Storage specifications

Storage type	Interface type	Capacity
3.5-inch hard-disk drive, 7200 RPM	SATA 3.0	Up to 2 TB
3.5-inch hard-disk drive, 5400 RPM	SATA 3.0	4 TB
M.2 2230 solid-state drive, Class 25	PCIe NVMe, up to 64 Gbps	Up to 2 TB
M.2 2230 solid-state drive, Class 35	PCIe NVMe, up to 64 Gbps	Up to 1 TB
M.2 2230 solid-state drive, Class 35, Self-Encrypting drive	PCIe NVMe, up to 64 Gbps	256 GB
M.2 2280 solid-state drive, Class 40	PCIe NVMe, up to 64 Gbps	Up to 2 TB
M.2 2280 solid-state drive, Class 40, Self-Encrypting drive	PCIe NVMe, up to 64 Gbps	Up to 1 TB

Storage matrix

The following table lists the storage configurations supported on your OptiPlex Small Form Factor Plus 7020.

Table 12. Storage matrix

Storage	Slot			
	SSD-0 (Primary M.2 PCIe for boot function)	SSD-1	SSD-2	SATA-0
One M.2 2230 solid-state drive	Yes			
Two M.2 2230 solid-state drives	Yes	Yes		
One M.2 2280 solid-state drive			Yes	
One M.2 2230 solid-state drive + One M.2 2280 solid-state drive	Yes		Yes	
Two M.2 2230 solid-state drives + One M.2 2280 solid-state drive	Yes	Yes	Yes	
One M.2 2230 solid-state drive + One 3.5-inch hard-disk drive	Yes			Yes
Two M.2 2230 solid-state drives + One 3.5-inch hard-disk drive	Yes	Yes		Yes
One M.2 2280 solid-state drive + One 3.5-inch hard-disk drive			Yes	Yes
One M.2 2230 solid-state drive + One M.2 2280 solid-state drive + One 3.5-inch hard-disk drive	Yes		Yes	Yes

Redundant Array of Independent Disks (RAID)

For optimal performance when configuring drives as a RAID volume, Dell Technologies recommends drive models that are identical.

NOTE: RAID is not supported on Intel Optane configurations.

RAID 0 (Striped, Performance) volumes benefit from higher performance when drives are matched because the data is split across multiple drives: any I/O operations with block sizes larger than the stripe size splits the I/O and become constrained by the slowest of the drives. For RAID 0 I/O operations where block sizes are smaller than the stripe size, whichever drive the I/O operation targets, determines the performance, which increases variability and results in inconsistent latencies. This variability

is particularly pronounced for write operations, and it can be problematic for applications that are latency sensitive. One such example of this is any application that performs thousands of random writes per second in very small block sizes.

RAID 1 (Mirrored, Data Protection) volumes benefit from higher performance when drives are matched because the data is mirrored across multiple drives all I/O operations must be performed identically to both drives, thus variations in drive performance when the models are different result in the I/O operations completing only as fast as the slowest drive. While this does not suffer from the variable latency issue in small random I/O operations as with RAID 0 across heterogeneous drives, the impact is nonetheless large because the higher performing drive becomes limited in all I/O types. One of the worst examples of constrained performance here is when using unbuffered I/O. To ensure that that writes are fully committed to nonvolatile regions of the RAID volume, unbuffered I/O bypasses cache (for example by using the Force Unit Access bit in the NVMe protocol) and the I/O operation will not complete until all the drives in the RAID volume have completed the request to commit the data. This kind of I/O operation completely negates any advantage of a higher performing drive in the volume.

Care must be taken to match not only the drive vendor, capacity, and class, but also the specific model. Drives from the same vendor, with the same capacity, and even within the same class, can have different performance characteristics for certain types of I/O operations. Thus, matching by model ensures that the RAID volume consists of a homogeneous array of drives that deliver all the benefits of a RAID volume without incurring the additional penalties when one or more drives in the volume are lower performing.

OptiPlex Small Form Factor Plus 7020 supports RAID with more than one hard drive configuration.

Media-card reader

The following table lists the media cards that are supported on your OptiPlex Small Form Factor Plus 7020.

Table 13. Media-card reader specifications

Description	Values
Media-card type	One SD card 4.0 slot (optional)
Media-cards supported	• Secure Digital (SD) • Secure Digital High Capacity (SDHC) • Secure Digital Extended Capacity (SDXC)
NOTE: The maximum capacity supported by the media-card reader varies depending on the standard of the media card that is installed on your computer.	

Power ratings

The following table lists the power rating specifications of OptiPlex Small Form Factor Plus 7020.

Table 14. Power ratings

Description	Option one	Option two
Type	260 W internal power supply unit (PSU), 85% Efficient, 80 Plus Bronze	300 W internal power supply unit (PSU), 92% Efficient, 80 Plus Platinum
Input voltage	90 VAC - 264 VAC	90 VAC - 264 VAC
Input frequency	47 Hz - 63 Hz	47 Hz - 63 Hz
Input current (maximum)	4.2 A	4.2 A
Output current (continuous)	• 12 VA / 18 A • 12 VB / 16 A Standby mode: • 12 VA / 1.5 A • 12 VB / 3.3 A	• 12 VA / 18 A • 12 VB / 18 A Standby mode: • 12 VA / 1.5 A • 12 VB / 3.3 A

Table 14. Power ratings (continued)

Description		Option one	Option two
Rated output voltage		• +12 VA • +12 VB	• +12 VA • +12 VB
Temperature range			
	Operating	5°C to 45°C (41°F to 113°F)	5°C to 45°C (41°F to 113°F)
	Storage	-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)

Power supply connector

The following table lists the Power supply connector specifications of your OptiPlex Small Form Factor Plus 7020.

Table 15. Power supply connector

Power supply unit	Connectors
260 W internal power supply unit (PSU), 85% Efficient, 80 Plus Bronze	• Two 4 pin connectors for processor • One 8 pin connector for system board
300 W internal power supply unit (PSU), 92% Efficient, 80 Plus Platinum	• Two 4 pin connectors for processor • One 8 pin connector for system board

GPU—Integrated

The following table lists the specifications of the integrated Graphics Processing Unit (GPU) supported by your OptiPlex Small Form Factor Plus 7020.

Table 16. GPU—Integrated

Controller	External display support	Memory size	Processor
Intel UHD Graphics 730	• Three DisplayPort 1.4a (HBR2 support) ports • One video port (HDMI 2.1/Displayport 1.4a (HBR3)/VGA/USB Type-C port with DisplayPort Alt mode)(optional)	Shared system memory	14th Generation Intel Core i3-14100
Intel UHD Graphics 770	• Three DisplayPort 1.4a • One video port (HDMI 2.1/Displayport 1.4a (HBR3)/VGA/USB Type-C port with DisplayPort Alt mode)(optional)	Shared system memory	14th Generation Intel Core i5-14500 vPro, i5-14600 vPro, i7-14700 vPro, i9-14900 vPro processors

Video port resolution (GPU—Integrated)

Table 17. Video port resolution (GPU—Integrated)

Graphics card	Video ports	Maximum supported resolution
Intel UHD Graphics	• Three DisplayPort 1.4a (HBR2 support) ports • One video port (HDMI 2.1/ Displayport 1.4a (HBR3)/VGA/USB Type-C port with DisplayPort Alt mode)(optional)	• DisplayPort 1.4a port - 4096 x 2304 @60Hz • One video port (HDMI 2.1/ Displayport 1.4a (HBR3)/VGA/USB Type-C port with DisplayPort Alt mode) (optional) - maximum resolution supported by HDMI 2.1 is up to 4096 x 2160 @60Hz, DisplayPort 1.4a (HBR3) is up to 5120 x 3200 @60Hz, VGA is up to 1920 x 1200 @60Hz,USB Type-C port with DisplayPort Alt mode is up to 5120 x 3200 @60Hz)

External display support (GPU—Integrated)

Display support for the integrated graphics card

Table 18. Display support specifications

Graphics card	Supported external displays
Intel UHD Graphics 730/770	• With MST- 4 • Without MST- 3
Intel UHD Graphics 730/770 + optional module	4

NOTE: MST (Multi-Stream Transport)/daisy-chaining supports four displays.

GPU—Discrete

Table 19. GPU—Discrete

Controller	External display support	Memory size	Memory type
AMD Radeon RX 6500	Two DisplayPort 1.4a (DP1.4a*2) ports	4 GB	64-bit, DDR6
AMD Radeon RX 6300	Two DisplayPort 1.4a (DP1.4a*2) ports	2 GB	64-bit, DDR6

Video port resolution (GPU—Discrete)

Table 20. Video port resolution (GPU—Discrete)

Graphics card	Video port	Maximum supported resolution
AMD Radeon RX 6300	Two DisplayPort 1.4a (DP1.4a*2) ports	5120 x 3200 @ 60 Hz is the maximum resolution for one port configuration
AMD Radeon RX 6500	Two DisplayPort 1.4a (DP1.4a*2) ports	5120 x 3200 @ 60 Hz is the maximum resolution for one port configuration

External display support (GPU—Discrete)

Table 21. External display support (GPU—Discrete)

Graphics Card	Video ports	Number of supported external displays	DisplayPort Multi-Stream Transport (MST) support
AMD Radeon RX6300	Two DisplayPort 1.4a (DP1.4a*2)	4	Supported
AMD Radeon RX6500	Two DisplayPort 1.4a (DP1.4a*2)	4	Supported

NOTE: DisplayPort Multi-Stream Transport (MST) allows you to daisy chain monitors that have DisplayPort 1.2 and above ports and MST support. For more information about using DisplayPort Multi-Stream Transport, see www.dell.com/support.

Hardware security

The following table lists the hardware security of your OptiPlex Small Form Factor Plus 7020.

Table 22. Hardware security

Hardware security
Kensington security-cable slot
Padlock loop
Chassis lock slot support
Chassis intrusion switch
Lockable cable covers
SafeID including Trusted Platform Module (TPM) 2.0
Smart card keyboard (FIPS)
Microsoft 10 Device Guard and Credential Guard (Enterprise SKU)
Microsoft Windows Bitlocker
Local hard drive data wipe through BIOS (Secure Erase)
Self-encrypting storage drives (Opal, FIPS)
Trusted Platform Module TPM 2.0
China TPM
Intel Secure Boot
Intel Authenticate
SafeBIOS: includes Dell Off-host BIOS Verification, BIOS Resilience, BIOS Recovery, and additional BIOS Controls
OptiPlex SFF Cable Cover

Environmental

The following table lists the environmental specifications of your OptiPlex Small Form Factor Plus 7020.

Table 23. Environmental

Feature	Values
Recyclable packaging	Yes

Table 23. Environmental (continued)

Feature	Values
Vertical orientation packaging support	No
Multi-Pack packaging	Yes

NOTE: Wood-based fiber packaging contains a minimum of 35% recycled content by total weight of wood-based fiber. Packaging that contains without wood-based fiber can be claimed as Not Applicable. The anticipated required criteria for EPEAT 2018.

Regulatory compliance

The following table lists the regulatory compliance of your OptiPlex Small Form Factor Plus 7020.

Table 24. Regulatory compliance

Regulatory compliance
Product Safety, EMC and Environmental Datasheets
Dell Regulatory Compliance Home Page
Responsible Business Alliance Policy

Operating and storage environment

This table lists the operating and storage specifications of your OptiPlex Small Form Factor Plus 7020.

Airborne contaminant level: G1 as defined by ISA-S71.04-1985

Table 25. Computer environment

Description	Operating	Storage
Temperature range	10°C to 35°C (50°F to 95°F)	-40°C to 65°C (-40°F to 149°F)
Relative humidity (maximum)	20% to 80% (non-condensing, Max dew point temperature = 26°C)	5% to 95% (non-condensing, Max dew point temperature = 33°C)
Vibration (maximum)*	0.26 GRMS random at 5 Hz to 350 Hz	1.37 GRMS random at 5 Hz to 350 Hz
Shock (maximum)	Bottom half-sine pulse with a change in velocity of 50.8 cm/sec (20 in./sec)	105G half-sine pulse with a change in velocity of 133 cm/sec (52.5 in./sec)
Altitude range	-15.2 m to 3048 m (-49.8 ft to 10,000 ft)	-15.2 m to 10,668 m (-49.8 ft to 35,000 ft)
Airborne Contaminants	ISA-71 G1**: <300A/month copper coupon corrosion AND <200A/month of silver coupon corrosion	ISA-71 G1**: <300A/month copper coupon corrosion AND <200A/month of silver coupon corrosion
] **CAUTION: Operating and storage temperature ranges may differ among components, so operating or storing the device outside these ranges may impact the performance of specific components.**		

* Measured using a random vibration spectrum that simulates user environment.

† Measured using a 2 ms half-sine pulse.

3

Engineering specifications

Physical system dimensions

The following table provides the physical dimensions of your OptiPlex Small Form Factor Plus 7020.

NOTE: System weight and shipping weight are based on a typical configuration and may vary based on your system configuration. A typical configuration includes integrated graphics, one hard drive, and one optical drive.

Table 26. Physical system dimensions

Feature	Values
Chassis volume	7.8 liter
Chassis Weight	• 4.28 kg (9.43 lb) (minimum) • 5.62 kg (12.38 lb) (maximum)
Height	290 mm (11.41 in.)
Width	92.60 mm (3.64 in.)
Depth	292.80 mm (11.52 in.)
Shipping Weight (includes packaging materials)	TBD
Packaging dimensions:	
Height	264 mm (10.38 in.)
Width	487 mm (19.19 in.)
Depth	394 mm (15.50 in.)

Add-in card dimensions

System board connector maximum add-in card allowable dimensions

The following table lists the system board connector maximum add-in card allowable dimensions of your OptiPlex Small Form Factor Plus 7020.

Table 27. System board connector maximum add-in card allowable dimensions

Feature	Values
PCIe x16 connector	Half-height Gen4 PCIe x16 slot
Voltage	3.3 V/12 V
Height	110.99 mm (4.37 in.)
Length	266.70 mm (10.50 in.)
Maximum wattage	75 W
PCIe x4 connector	Half-height Gen3 PCIe x4 slot

Table 27. System board connector maximum add-in card allowable dimensions (continued)

Feature	Values
Voltage	3.3 V/12 V
Height	110.99 mm (4.37 in.)
Length	167.64 mm (6.60 in.)
Maximum wattage	25 W

Table 28. M.2 2230 slot for Wi-Fi card and Bluetooth combo card

Description	Values
Voltage	3.3 V
Width	22 mm (0.86 in.)
Length	30 mm (1.18 in.)
Thickness	3.65 mm (0.14 in.)
Maximum wattage	6.6 W

Table 29. M.2 2280 slot for solid-state drive

Description	Values
Voltage	3.3 V
Width	22 mm (0.86 in.)
Length	80 mm (3.14 in.)
Thickness	3.65 mm (0.14 in.)
Maximum Wattage	6.6 W

Table 30. M.2 2230 slot for solid-state drive

Description	Values
Voltage	3.3 V
Width	22 mm (0.86 in.)
Length	30 mm (1.18 in.)
Thickness	2.30 mm (0.09 in.)
Maximum wattage	6.6 W

Dust filter

The following table lists the dust filter specifications of your OptiPlex Small Form Factor Plus 7020.

Table 31. Dust filter

Feature	Values
Type	0.20 mm (0.008 in.)
Mesh count	2540 mm (100.00 in.)
Weave	PW

Table 31. Dust filter (continued)

Feature	Values
Silk diameter	0.05 mm (0.002 in.)
Open area	61 %
Thickness	0.10 mm (0.004 in.)
Remark	PET

PCIe add-in cards

USB Type-C 3.2 Gen 2 (10 Gbps) PCIe card, Low Profile

Table 32. USB Type-C 3.2 Gen 2 (10 Gbps) PCIe card, Low Profile

Feature	Values
Bus	PCI Express Spec 3.0 x 2 (compliant with x4/x8/x16 slot)
Controller	• PCI Express USB 3.1 Host Controller • Asmedia ASM3142
USB standard	eXtensible Host Controller Interface (xHCI) Rev1.1
IRQ and IO	Assigned by system
USB Communication	
Host interface	• Universal Serial Bus 3.1 • Universal Serial Bus 3.0 • Universal Serial Bus 2.0 • Universal Serial Bus 1.1
Speed	• SuperSpeed+ (10 Gbps) • SuperSpeed (5 Gbps) • High Speed (480 Mbps) • Full Speed (12 Mbps) • Low Speed (1.5 Mbps)
Number of ports	Two ports **NOTE:** One port supports data only, and the other port supports full feature.
USB connector	USB 3.2 Type-C port (Downstream facing port)
Protection	• +/-15KV IEC61000-4-2 Air Gap Discharge • +/-8KV IEC61000-4-2 Contact Discharge
Audio and Video	
Input interface	• Standard DisplayPort Female • DisplayPort 1.2/1.1
Output interface	USB Type-C port
Audio	Supported (Audio pass-through)
Power	
Power source	PCI Express Bus Power
Output power capacity	USB Type-C Port:

Table 32. USB Type-C 3.2 Gen 2 (10 Gbps) PCIe card, Low Profile (continued)

Feature	Values
	USB Bus Power:+5 VDC/1.5 A/each port **NOTE:** Total power output capacity is limited by the system power supply.
Over current protection	USB Type-C Port: +5 VDC/1.5 A/each port/power switch
Power consumption	3.0 W @ 3.3 V (board only without power output to USB device)
Operating System	
Supported operating system	Windows (64-bit)
Environment	
Operating temperature	0°C to 60°C (32°F to 140°F)
Operating humidity	5% to 95% RH
Storage temperature	-20°C to 70°C (-4°F to 158°F)
Standards and Certifications	
EMC	• CE • FCC • VCCI • BSMI
Green	• RoHS • CRoHS • WEEE

USB 3.2 Gen 2 PCIe card, Low Profile

The following table lists the USB 3.2 Gen 2 PCIe card, Low Profile specifications.

Table 33. USB 3.2 Gen 2 PCIe card, Low Profile specifications

Feature	Values
Interface	Universal Serial Bus 3.1/3.0/2.0/1.1
Speed	• Super Speed+ (10 Gbps) • Super Speed (5 Gbps) • High Speed (480 Mbps) • Full Speed (12 Mbps) • Low Speed (1.5 Mbps)
Number of ports	Two
Printed circuit board connector	USB 3.1 USB Type-A port
Controller details	
Controller	PCI Express USB3.1 Host controller, Asmedia ASM 3142
Controller bus architecture	PCI Express Spec 3.0, Dual Lane (x 2)
USB standard	eXtensible Host Controller Interface (xHCI) Rev 1.1
Power	
Source	PCIe Bus Power
Output Capacity	USB Type-A Port: +5 VDC/Maximum 0.9 A/each port

Table 33. USB 3.2 Gen 2 PCIe card, Low Profile specifications (continued)

Feature	Values
	NOTE: Total power output capacity is limited by system power supply.
Over Current Protection	USB Type-A Port: +5 VDC/1.5 A/each port/Power switch
Power Consumption	1.1 W @ 3.3 V (board only without power output to USB device)
Environment	
Operating temperature	0°C to 60°C (32°F to 140°F)
Operating humidity	5 to 95% RH
Storage temperature	-20°C to 70°C (-4°F to 158°F)

i226 PCIe x1 2.5 GbE NIC Card

The following table lists the i226 PCIe x1 2.5 GbE NIC Card specifications.

Table 34. i226 PCIe x1 2.5 GbE NIC Card specifications

Feature	Values
RJ45 connection	Compatibility with cable lengths up to 100 mts using • CAT5e • CAT6 • CAT6A
Interface	PCIe
Data rate supported per port	2.5/1 GbE and 100/10 Mbps
Controller details	
Controller	Intel Ethernet Controller i226
Controller bus architecture	PCI Express 3.1 x1
Driver support	N/A
Bracket	Full-height bracket installed. Low-profile bracket in package.
Environment	
Operating temperature	0°C to 55°C (32°F to 131°F)
Operating humidity	Maximum: 90% non-condensing relative humidity at 35°C
Storage temperature	-40°C to 70°C (-40°F to 158°F)

Serial port PCIe card, Low Profile

Table 35. Serial port PCIe card, Low Profile

Feature	Values
Interface	• RS-232 • IEEE1284
Data rates	• 50 bps ~115.2 Kbps (serial) • maximum 1.8 Mbps (parallel)
Controller details	

Table 35. Serial port PCIe card, Low Profile (continued)

Feature	Values
Controller	SUNIX SUN2212 (16C950 UART compatible)
Controller bus architecture	• PCI Express 2.0 • Single-Lane (x1)
Driver support	Windows 10 (64-bit)
Half-height serial add-in dongle	Optional
Environment	
Operating temperature	0°C to 60°C (32°F–140°F)
Operating humidity	5% to 95% RH
Storage temperature	-20°C to 85°C (-4°F to 185°F)

Parallel Port PCIe card, Low Profile

Table 36. Parallel Port PCIe card, Low Profile

Feature	Values
Interface	• RS-232 • IEEE1284
Data rates	• 50 bps ~115.2 Kbps (serial) • maximum 1.8 Mbps (parallel)
Controller details	
Controller	SUNIX SUN2212 (16C950 UART compatible)
Controller bus architecture	• PCI Express 2.0 • Single-Lane (x1)
Driver support	Windows 10 (64-bit)
Half-height parallel add-in dongle	Optional
Environment	
Operating temperature	0°C to 60°C (32°F–140°F)
Operating humidity	5% to 95% RH
Storage temperature	-20°C to 85°C (-4°F to 185°F)

PS/2 and Serial Port Card, Low Profile

The following table lists the PS/2 and serial port card, low profile specifications.

Table 37. PS/2 and serial port card, low profile specifications

Feature	Values
Interface	UART
Data rates	250 kbps / 235 kbps
Controller details	
Controller	Microchip DEC1515
Controller bus architecture	PCIe

Table 37. PS/2 and serial port card, low profile specifications (continued)

Feature	Values
Driver support	N/A
Half-height serial add-in dongle	N/A
Environment	
Operating temperature	0°C to 70°C (32°F to 158°F) / -40°C to 85°C (-40°F to 185°F
Operating humidity	60% RH
Storage temperature	-65°C to 150°C (-85°F to 302°F)

Ethernet

Intel Ethernet Connection i219-LM

The following table lists the i219-LM specifications.

Table 38. Intel Ethernet Connection i219-LM specifications

Feature	Values
External connector type	RJ45
Data rate	10/100/1000 Mbps
Controller Details	
Controller bus architecture	PCI Express base specification revision 1.1
Integrated memory	Yes
Data transfer mode	Yes (Bus-Master DMA)
Power consumption (Full operation per data rate connection speed)	542 mW (Max)
Power consumption (Standby operation)	76 mW (Max)
IEEE standards compliance	802.3
Hardware certifications	N/A
Boot ROM support	EEPROM (Located in SPI)
Network Transfer Mode	
Network transfer rate	10 Mb (full/half-duplex)
10BASE-T (full-duplex) 20 Mbps	100 Mb (full/half-duplex)
100BASE-TX (half-duplex) 100 Mbps	1000 Mb (full-duplex)
Environmental	
Operating temperature range	0°C–85°C (32°F–185°F)
Operating humidity	20% to 80% (non condensing)
Operating system driver Support	• Windows (x64) • Ubuntu • Neokylin
Manageability	• Wakeup On LAN • PXE 2.1

Table 38. Intel Ethernet Connection i219-LM specifications (continued)

Feature	Values
Management capabilities alerting	Optional Intel Standard Manageability (must be made at time of purchase).

This term does not connote an actual operating speed of 1 Gb/sec. For high-speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.

Wireless module

Intel AX211, 2x2 MIMO, 2400 Mbps, 2.4/5/6 GHz, Wi-Fi 6E (WiFi 802.11ax), Bluetooth 5.3

The following table lists the Intel AX211 specifications.

NOTE: Wi-Fi 6 is supported in regions where Wi-Fi 6E is unavailable.

Table 39. Intel AX211 specifications

Description	Specifications
Host interface	CNVio
Network standard	• IEEE 802.11a/b/g/n/ac/ax, 160 MHz channel use • MU-MIMO, new 6 GHz band
Wi-Fi Alliance certifications	Wi-Fi CERTIFIED 6, Wi-Fi CERTIFIED a/b/g/n/ac,WMM, WMM-Power Save, WPA2, WPA3, WPS, PMF,Wi-Fi Direct, Wi-Fi Agile Multiband **NOTE:** Other names and brands may be claimed as the property of others.
Operating frequency bands	• 2.4 GHz • 5 GHz • 6 GHz
Data rate	• 2.4 GHz 40M: Up to 574 Mbps • 5/6 GHz 80M: Up to 1.2 Gbps • 5/6 GHz 160M: Up to 2.4 Gbps
Power consumption	Optimized power modes (sleep states) reduce power consumption during periods of inactivity
Security methods	• WPA2 Personal and Enterprise • WPA3
Authentication protocols	• 802.1X EAP-TLS • EAP-TTLS/MSCHAPv2 • PEAPv0 -MSCHAPv2 (EAP-SIM, EAP-AKA, EAP-AKA)
Encryption	• 64-bit and 128-bit WEP • TKIP • 128-bit AES-CCMP • 256-bit AES-GCMP
Product safety	• UL • C-UL • CB (IEC60950-1)

Table 39. Intel AX211 specifications (continued)

Description	Specifications
Management capabilities alerting	Support for Intel AMT
Government compliance	• FIPS 140-2 • FISMA
Client utility	Intel PRO/Set wireless software v22 and later
Antenna diversity	Supported
Radio On/Off	Supported
Roaming	Support seamless roaming between access points
Wake on wireless	Supported
Wireless display	Native Miracast support by Windows
Wireless PAN standard	• Dual Mode Bluetooth 5.3 • BLE
Bluetooth data rates	Up to 3 Mbps
Bluetooth operating frequency bands	2.4 GHz
Bluetooth profiles supported	Support for Microsoft Inbox Bluetooth profiles in Windows
Bluetooth data encryption	128-bit encryption
Bluetooth output power	Power class 1
Operating temperature	0°C to +50°C (Full performance at shield temperatures up to 80°C)
Storage temperature	-40°C to +70°C
Humidity	Up to 90% RH non-condensing (at temperatures of 25°C to 35°C)

Realtek RTL8852BE, 2x2, Wi-Fi 6 (Wi-Fi 802.11 a/b/g/n/ac/ax), Bluetooth 5.3

The following table lists the Realtek RTL8852BE specifications.

Table 40. Realtek RTL8852BE specifications

Description	Specifications
Host interface	• Wi-Fi - PCIe • Bluetooth - USB
Network standard	IEEE 802.11a/b/g/n/ac/ax, MU-MIMO
Wi-Fi Alliance certifications	• Wi-Fi certified a/b/g/n/ac/ax • WMM* • WPA • WPA2* • WPA3* • Wi-Fi Direct (Windows only)
Operating frequency bands	• 2.4 GHz • 5 GHz
Data rate	• 2.4 GHz 40M: Up to 574 Mbps • 5 GHz 80M: Up to 1201 Mbps

Table 40. Realtek RTL8852BE specifications (continued)

Description	Specifications
Power consumption	Optimized power modes (sleep states) reduce power consumption during periods of inactivity
Security method	• WPA* and WPA2* Personal and Enterprise • WPA3* Personal and Enterprise
Client utility	Native Wi-Fi and Bluetooth Microsoft UI support
Software support	• Microsoft WHQL certified for Windows • Linux
Radio On/Off	Supported
Roaming	Support seamless roaming between access points
Wake on wireless	Supported
Wireless display	Native Miracast support by Windows
Wireless PAN standard	• Dual Mode Bluetooth 5.3 • BLE
Bluetooth data rates	Up to 3 Mbps
Bluetooth operating frequency bands	2.4 GHz
Bluetooth profiles supported	Support for Microsoft Inbox Bluetooth profiles in Windows
Bluetooth data encryption	128-bit encryption
Operating temperature	0°C to + 70°C
Storage temperature	-40°C to +85°C
NOTE: *Other names and brands may be claimed as the property of others.	

GPU—Integrated

Intel UHD Graphics 730

Table 41. Intel UHD Graphics 730 specifications

Intel UHD Graphics 730	
Bus Type	Integrated
Memory type	Shared memory
Graphics Level	Intel core i3/i5: GT1 (UHD)
Overlay Planes	Yes
Operating Systems Graphics/ Video API Support	DirectX 12, OpenGL (4.6)
Supports maximum resolution	• On board DP1.4a (HBR2)(4096 x 2304 @ 60 Hz) • One video port (HDMI 2.1/Displayport 1.4a (HBR3)/VGA/USB Type-C with DisplayPort Alt mode) (optional, maximum resolution supported by HDMI 2.1 is up to 4096 x 2160 @60Hz, DisplayPort 1.4a (HBR3) is up to 5120 x 3200 @60Hz, VGA is up to 1920 x 1200 @60Hz,USB Type-C with DisplayPort Alt mode is up to 5120 x 3200 @60Hz)
Maximum vertical refresh rate	Up to 60 Hz depending on resolution

Table 41. Intel UHD Graphics 730 specifications (continued)

Intel UHD Graphics 730	
External ports	• Three DisplayPort 1.4a port (HBR2) ports • One Optional video port (HDMI 2.1/Displayport 1.4a(HBR3)/VGA/USB Type-C with DisplayPort Alt Mode)
Multiple display support	Up to 4 displays via DisplayPort Multi-Streaming Technology (MST)

Intel UHD Graphics 770

Table 42. Intel UHD Graphics 770 specifications

Intel UHD Graphics 770	
Bus Type	Integrated
Memory type	Shared memory
Graphics Level	Intel core i5/i7/i9: GT1 (UHD)
Overlay Planes	Yes
Operating Systems Graphics/ Video API Support	DirectX 12, OpenGL (4.6)
Supports maximum resolution	• On board DP1.4a (HBR2)(4096 x 2304 @ 60 Hz) • One video port (HDMI 2.1/Displayport 1.4a (HBR3)/VGA/USB Type-C with DisplayPort Alt mode) (optional, maximum resolution supported by HDMI 2.1 is up to 4096 x 2160 @60Hz, DisplayPort 1.4a (HBR3) is up to 5120 x 3200 @60Hz, VGA is up to 1920 x 1200 @60Hz,USB Type-C with DisplayPort Alt mode is up to 5120 x 3200 @60Hz)
Maximum vertical refresh rate	Up to 60 Hz depending on resolution
External ports	• Three DisplayPort 1.4a (HBR2) ports • One Optional video port (HDMI 2.1/Displayport 1.4a(HBR3)/VGA/USB Type-C with DisplayPort Alt Mode)
Multiple display support	Up to 4 displays via DisplayPort Multi-Streaming Technology (MST)

GPU—Discrete

AMD Radeon RX6300, 2 GB, GDDR6

The following table lists the AMD Radeon RX6300 specifications.

Table 43. AMD Radeon RX6300 specifications

Feature	Values
Dedicated graphics memory	2 GB, GDDR6
Memory bus	32-bit
Memory config	• SAMSUNG: K4ZAF325BM-HC16, DPN: 3PNGN

Table 43. AMD Radeon RX6300 specifications (continued)

Feature	Values
	• HYNIX: H56G42AS4DX014 , DPN MFN30
Width	Single slot
Approximate wattage	TBP: 32 W
Base clock	N/A
Boost clock	N/A
NVIDIA CUDA cores	N/A
G-Sync / Freesync ready	Freesync (AMD Interlock)
Supported APIs	DirectX 12 (AMD Interlock)
Maximum resolution	8K 120Hz, 8K@60Hz is the maximum resolution for one port config.
HDMI support	No
HDCP support	Yes
I/O ports	Two DisplayPort 1.4a ports

AMD Radeon RX6500, 4 GB, GDDR6

The following table lists the AMD Radeon RX6500 specifications.

Table 44. AMD Radeon RX6500 specifications

Feature	Values
Dedicated graphics memory	4 GB, GDDR6
Memory bus	64-bit
Memory config	• SAMSUNG: K4ZAF325BM-HC16, DPN: 3PNGN • HYNIX: H56G42AS4DX014 , DPN MFN30
Width	Single slot
Approximate wattage	TBP: 51 W
Base clock	N/A
Boost clock	N/A
NVIDIA CUDA cores	N/A
G-Sync / Freesync ready	Freesync (AMD Interlock)
Supported APIs	DirectX 12 (AMD Interlock)
Maximum resolution	8K 120Hz, 8K@60Hz is the maximum resolution for one port config.
HDMI support	No
HDCP support	Yes
I/O ports	Two DisplayPort 1.4a ports

GPU and PSU matrix

The following table provides the GPU and PSU matrix of your OptiPlex Small Form Factor Plus 7020.

Table 45. GPU and PSU matrix

Graphics card	Card length	Weight (kg)	Power connector	I/O connector	Single/Dual wide	PSU
AMD Radeon RX6300	6.60 in.	0.138	Not applicable	Two DisplayPort 1.4a ports	Single	260 W
AMD Radeon RX6500	6.60 in.	0.140	Not applicable	Two DisplayPort 1.4a ports	Single	260 W

Hard-disk drive Preloaded bracket matrix

The following table lists the hard-disk drive preloaded bracket information of your OptiPlex Small Form Factor Plus 7020.

Table 46. Hard-disk drive Preloaded bracket matrix

Hard-disk drive Preloaded bracket	Available
3.5 in. Caddy/Bracket	Yes
2.5 in. Caddy/Bracket	No

Storage

3.5-inch, 1 TB, 7200 RPM, SATA, HDD

Table 47. 3.5-inch, 1 TB, 7200 RPM, SATA, HDD specifications

Description	Values
Capacity	1 TB
Speed	7200 RPM
Height (approximate)	26.10 mm (1.02 in.)
Width (approximate)	147.06 mm (5.79 in.)
Depth (approximate)	101.60 mm (4.00 in.)
Interface	SATA 3.0
Speed (maximum)	Up to 6 Gbps
MTBF	550,000 hours
Logical blocks	1,953,525,168
Power source	
Power consumption (reference only)	• Idle: 5 W • Active: 10 W
Environmental operating conditions (non-condensing)	
Temperature range	5°C to 60°C
Relative humidity range	5% to 90%
Op shock	65G @2ms

Table 47. 3.5-inch, 1 TB, 7200 RPM, SATA, HDD specifications (continued)

Description	Values
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 65°C
Relative humidity range	5% to 95%

3.5-inch, 2 TB, 7200 RPM, SATA, HDD

Table 48. 3.5-inch, 2 TB, 7200 RPM, SATA, HDD specifications

Description	Values
Capacity	2 TB
Speed	7200 RPM
Height (approximate)	25.40 mm (1.00 in.)
Width (approximate)	147.06 mm (5.79 in.)
Depth (approximate)	101.60 mm (4.00 in.)
Interface	SATA 3.0
Speed (maximum)	Up to 6 Gbps
MTBF	550,000 hours
Logical blocks	3,907,029,168
Power source	
Power consumption (reference only)	• Idle: 5 W • Active: 10 W
Environmental operating conditions (non-condensing)	
Temperature range	5°C to 60°C
Relative humidity range	5% to 90%
Op shock	65G @2ms
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 65°C
Relative humidity range	5% to 95%

3.5-inch, 4 TB, 5400 RPM, SATA, HDD

Table 49. 3.5-inch, 4 TB, 5400 RPM, SATA, HDD specifications

Description	Values
Capacity	4 TB
Speed	5400 RPM
Height (approximate)	25.40 mm (1.00 in.)
Width (approximate)	147.06 mm (5.79 in.)
Depth (approximate)	101.60 mm (4.00 in.)
Interface	SATA 3.0
Speed (maximum)	Up to 6 Gbps

Table 49. 3.5-inch, 4 TB, 5400 RPM, SATA, HDD specifications (continued)

Description	Values
MTBF	550,000 hours
Logical blocks	7,814,037,168
Power source	
Power consumption (reference only)	• Idle: 5 W • Active: 10 W
Environmental operating conditions (non-condensing)	
Temperature range	5°C to 60°C
Relative humidity range	5% to 90%
Op shock	65G @2ms
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 65°C
Relative humidity range	5% to 95%

M.2 2230, 512 GB, PCIe NVMe, Class 25 SSD

The following table lists the M.2 2230, 512 GB SSD specifications.

Table 50. 512 GB SSD specifications

Description	Values
Capacity	512 GB
Height (approximate)	3.50 mm (0.17 in.)
Width (approximate)	22.00 mm (0.87 in.)
Depth (approximate)	30.00 mm (1.18 in.)
Interface type	PCIe
Speed (maximum)	32 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	1,000,215,216
Power source	
Power consumption (reference only)	• Idle: 5 mW (PS4) • Active: 3.50 W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2230, 1 TB, PCIe NVMe Gen4 x4, Class 25 SSD

The following table lists the M.2 2230, 1 TB SSD specifications.

Table 51. 1 TB SSD specifications

Description	Values
Capacity	1 TB
Height (approximate)	2.38 mm (0.09 in.)
Width (approximate)	22 mm (0.87 in.)
Depth (approximate)	30 mm (1.18 in.)
Interface type	PCIe Gen4
Speed (maximum)	64 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	2,000,409,264
Power source	
Power consumption (reference only)	• Idle: 5 mW (PS4) • Active: 4 W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2230, 2 TB, PCIe NVMe Gen 4 x4, Class 25 SSD

The following table lists the M.2 2230, 2 TB SSD specifications.

Table 52. 2 TB SSD specifications

Description	Values
Capacity	2 TB
Height (approximate)	2.38 mm (0.09 in.)
Width (approximate)	22 mm (0.87 in.)
Depth (approximate)	30 mm (1.18 in.)
Interface type	PCIe Gen 4
Speed (maximum)	64 Gb/s (up to four lanes)
MTBF	1.4M hours
Logical blocks	4,000,797,360
Power source	
Power consumption (reference only)	• Idle: 5 mW (PS4) • Active: 4W

Table 52. 2 TB SSD specifications (continued)

Description	Values
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental nonoperating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2230, 256 GB, TLC PCIe NVMe Gen 4, Class 35 SSD

The following table lists the M.2 2230, 256 GB SSD specifications.

Table 53. 256 GB SSD specifications

Description	Values
Capacity	256 GB
Height (approximate)	3.50 mm (0.13 in.)
Width (approximate)	22 mm (0.87 in.)
Depth (approximate)	30 mm (1.18 in.)
Interface type	PCIe Gen 4
Speed (maximum)	64 Gb/s (up to 4 lanes)
MTTF	1.4M hours
Logical blocks	500,118,192
Power source	
Power consumption (reference only)	• Idle: 5 mW (PS4) • Active: 4W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2230, 512 GB, TLC PCIe NVMe Gen 4, Class 35 SSD

The following table lists the M.2 2230, 512 GB SSD specifications.

Table 54. 512 GB SSD specifications

Description	Values
Capacity	512 GB

Table 54. 512 GB SSD specifications (continued)

Description	Values
Height (approximate)	3.50 mm (0.13 in.)
Width (approximate)	22 mm (0.87 in.)
Depth (approximate)	30 mm (1.18 in.)
Interface type	PCIe Gen 4
Speed (maximum)	64 Gb/s (up to 4 lanes)
MTTF	1.4M hours
Logical blocks	1,000,215,216
Power source	
Power consumption (reference only)	• Idle: 5 mW (PS4) • Active: 4W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2230, 1 TB, TLC PCIe NVMe Gen 4, Class 35 SSD

The following table lists the M.2 2230, 1 TB SSD specifications.

Table 55. 1 TB SSD specifications

Description	Values
Capacity	1 TB
Height (approximate)	3.50 mm (0.13 in.)
Width (approximate)	22 mm (0.87 in.)
Depth (approximate)	30 mm (1.18 in.)
Interface type	PCIe Gen 4
Speed (maximum)	64 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	2,000,409,264
Power source	
Power consumption (reference only)	• Idle: 5 mW (PS4) • Active: 4W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G

Table 55. 1 TB SSD specifications (continued)

Description	Values
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2230, 512 GB, PCIe NVMe Gen 4 x4, Opal Self-Encrypting, Class 35 SSD

The following table lists the M.2 2230, 512 GB SSD specifications.

Table 56. 512 GB SSD, self-encrypting drive specifications

Description	Values
Capacity	512 GB
Height (approximate)	2.38 mm (0.09 in.)
Width (approximate)	22 mm (0.87 in.)
Depth (approximate)	30 mm (1.18 in.)
Interface type	PCIe Gen 4
Speed (maximum)	64 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	500,118,192
Power source	
Power consumption (reference only)	• Idle: 5 mW (PS4) • Active: 4W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2280, 512 GB, PCIe NVMe Gen4 x4, Class 40 SSD

The following table lists the M.2 2280, 512 GB SSD specifications.

Table 57. 512 GB SSD specifications

Description	Values
Capacity	512 GB
Height (approximate)	2.38 mm (0.17 in.)
Width (approximate)	22 mm (0.87 in.)
Depth (approximate)	80 mm (3.15 in.)

Table 57. 512 GB SSD specifications (continued)

Description	Values
Interface type	PCIe Gen4
Speed (maximum)	64 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	1,000,215,216
Power source	
Power consumption (reference only)	• Idle: 5 mW (PS4 - L1.2) • Active: 5 W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2280, 1 TB, PCIe NVMe Gen4 x4, Class 40 SSD

The following table lists the M.2 2280, 1 TB SSD specifications.

Table 58. 1 TB SSD specifications

Description	Values
Capacity	1 TB
Height (approximate)	2.38 mm (0.17 in.)
Width (approximate)	22 mm (0.87 in.)
Depth (approximate)	80 mm (3.15 in.)
Interface type	PCIe Gen4
Speed (maximum)	64 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	2,000,409,264
Power source	
Power consumption (reference only)	• Idle: 5 mW (PS4 - L1.2) • Active: 5 W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2280, 2 TB, PCIe NVMe Gen4 x4, Class 40 SSD

The following table lists the M.2 2280, 2 TB SSD specifications.

Table 59. 2 TB SSD specifications

Description	Values
Capacity	2 TB
Height (approximate)	2.38 mm (0.09 in.)
Width (approximate)	22 mm (0.87 in.)
Depth (approximate)	80 mm (3.15 in.)
Interface type	PCIe Gen4
Speed (maximum)	64 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	4,000,797,360
Power source	
Power consumption (reference only)	• Idle: 5 mW (PS4 - L1.2) • Active: 5 W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2280, 512 GB, PCIe NVMe Gen4 x4, Opal Self-Encrypting Class 40 SSD

The following table lists the M.2 2280, 512 GB SSD, self-encrypting drive specifications.

Table 60. 512 GB SSD, self-encrypting drive specifications

Description	Values
Capacity	512 GB
Height (approximate)	2.38 mm (0.09 in.)
Width (approximate)	22 mm (0.87 in.)
Depth (approximate)	80 mm (3.15 in.)
Interface type	PCIe Gen4
Speed (maximum)	64 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	1,000,215,216
Power source	
Power consumption (reference only)	• Idle: 5 mW (PS4 - L12)

Table 60. 512 GB SSD, self-encrypting drive specifications (continued)

Description	Values
	• Active: 5 W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2280, 1 TB, PCIe NVMe Gen4 x4, Opal Self-Encrypting Class 40 SSD

The following table lists the M.2 2280, 1 TB SSD, self-encrypting drive specifications.

Table 61. 1 TB SSD, self-encrypting drive specifications

Description	Values
Capacity	1 TB
Height (approximate)	2.38 mm (0.09 in.)
Width (approximate)	22 mm (0.87 in.)
Depth (approximate)	80 mm (3.15 in.)
Interface type	PCIe Gen4
Speed (maximum)	64 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	2,000,409,264
Power source	
Power consumption (reference only)	• Idle: 5 mW (PS4 - L12) • Active: 5 W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

Media-card reader

The following table lists the media-card reader specifications on your OptiPlex Small Form Factor Plus 7020.

Table 62. Media-card reader (standard offering)

Description	Specifications
Media Supported **NOTE:** Maximum capacity that is supported will vary by Flash Media Types	SDXC, SDHC, SD Secure Digital (SD) 4.0 UHS-II Secure Digital (SD) 3.0 UHS-I
Support Specification Versions	Secure Digital (SD) 4.0
Power source	
Max Power Requirements	1.2 A
Supply Voltage Range	3.3 V
Power Consumption	MS 0.08 mA
Environmental operating conditions (Non-condensing)	
Operating Temperature Range	0°C to 70°C
Relative Humidity Range	N/A
Environmental non-operating conditions (Non-condensing)	
Operating Temperature Range	N/A
Relative Humidity Range	N/A

Thermal dissipation

The following table lists the thermal dissipation of your OptiPlex Small Form Factor Plus 7020.

Table 63. Thermal dissipation

Power supply unit	Heat dissipation	Voltage
260 W (80 Plus Bronze)	888 BTU/hr	100 VAC-240 VAC, 50 Hz-60 Hz, 4.2A/2.1 A
300 W (80 Plus Platinum)	1023 BTU/hr	100 VAC-240 VAC, 50 Hz-60 Hz, 4.2A/2.1 A

CMOS battery

The following table lists the CMOS battery specifications of your OptiPlex Small Form Factor Plus 7020.

Table 64. CMOS battery

Brand	Type	Voltage	Composition	Battery life
DOUBLE BEST	CR2032	3.0 V	Lithium metal	Continuous Discharge Under 15 kΩ Load to 2.0 V End-Voltage. 20℃±2℃ 1030 Hrs. or Longer.980 Hrs.or Longer after 12 mo.
VIC-DAWN	CR2032	3.0 V	Lithium metal	Continuous Discharge Under 15 kΩ Load to 2.0 V End-Voltage. 20℃±2℃ 1030 Hrs. or Longer.980 Hrs.or Longer after 12 mo.

Accessories

The following table lists the supported accessories on your OptiPlex Small Form Factor Plus 7020.

Table 65. Accessories

Accessories
Keyboard and Mouse: • Dell Premier Multi-Device Wireless Keyboard and Mouse - KM7321W
Display: • Dell 24 Monitor - P2422H • Dell 27 Monitor - P2723D • Dell UltraSharp 24 Monitor - U2422H
Web Cam: • Dell UltraSharp Webcam - WB7022
Audio and Speakers : • Dell Speakerphone - SP3022
Audio Headsets : • Dell Premier Wireless ANC Headset - WL7022

Security

Software security

The following table lists the software security details of your OptiPlex Small Form Factor Plus 7020.

Table 66. Software security

Security options
SafeSupply Chain Add-on
Dell Trusted Device Agent
Absolute Control (Pro) - 1, 3, 4, and 5 year options
Absolute Resilience (Prem) - 1, 3, 4, and 5 year options
Absolute Resilience (Premium), SLED - 1, 3, 4, and 5 year options
Absolute Visibility (Std) - 1, 3, 4, and 5 year options
McAfee Business Protection
Secureworks Taegis XDR
VMware Carbon Black
CrowdStrike Falcon

Trusted Platform Module

The following table lists the Trusted Platform Module (TPM) of your OptiPlex Small Form Factor Plus 7020.

Table 67. Trusted Platform Module (TPM)

Nuvoton NPCT760JABYX
SPI interface

Table 67. Trusted Platform Module (TPM) (continued)

Nuvoton NPCT760JABYX
TPM 2.0
FIPs 140-2 certificate

Mil-SPEC

The OptiPlex Small Form Factor Plus 7020 meets military specifications for the following MIL-STD 810H tests verified by SGS laboratories:

Table 68. Military specifications

Test category	Test method	Test parameters	Result
Altitude (Storage/Air transport)	MIL-STD-810H, Method 500.6, Procedure I	• Test pressure: Equivalent to cabin altitude of 15,000 feet • Test temperature: 21°C • Altitude change rate: <10 m/s • Duration: 1 hour	Pass
Altitude (Operational/Air carriage)	MIL-STD-810H, Method 500.6, Procedure II	• Test pressure: Equivalent to cabin altitude of 15,000 feet • Test temperature: 21°C • Altitude change rate: <10 m/s • Duration: 1 hour	Pass
High temperature (Storage and transition)	MIL-STD-810H, Method 501.7, Procedure I	• Test temperature: 33°C to 71°C (non-operational/ storage), Table 501.7—III High temperature cycles • Duration: 7 x 24 hours per cycle • Climate category A1: Hot dry	Pass
High temperature (Operational)	MIL-STD-810H, Method 501.7, Procedure II	• Test temperature: 32°C to 49°C (Ambient air), Table 501.7—III High temperature cycles • Duration: 5 x 24 hours per cycle	Pass
Low temperature (Storage)	MIL-STD-810H, Method 502.7, Procedure I	• Test temperature: -51°C • Duration: 24 hrs	Pass
Low temperature (Operational)	MIL-STD-810H, Method 502.7, Procedure II	• Test temperature: -29°C • Duration: 24 hrs	Pass
Humidity	MIL-STD-810H, Method 507.6, Procedure I	**Induced cycles (Storage and Transit)**: • Duration: Table 507.6-II (Hot-humid cycle B3) • Material category: Non-Hazardous items normal test duration	Pass

Table 68. Military specifications (continued)

Test category	Test method	Test parameters	Result
Bench handling	MIL-STD-810H, Method 516.8, Procedure VI	Angle drops onto solid wooden bench thickness least 4.25cm (1.675 inch). Test height judgement as two conditions as rise test units at one edge 100mm (4 inch) or rise an angle of 45° about a solid wooden bench top. Unit is non-operational during test.	Pass
Sand and dust (Blowing dust)	MIL-STD-810H, Method 510.7, Procedure I	• Duration: 12 hours • Air velocity = 1.50 m/s (300 ft/min) to 8.90 m/s (1750 ft/min) • Temperature: 60 °C Relative Humidity: 30% • 6H at standard ambient temperature and 6 hours at the high • Storage or operating temperature • Unit is non-operational during test.	Pass
Vibration (Operational)	MIL-STD-810H, Method 514.8, Procedure I - Category 4	• Vibration: 10-500 Hz • 1.04 Grms, Random 1 hour on bottom, left and back side	Fail
Vibration (Storage)	MIL-STD-810H, Method 514.8, Procedure I - Category 24	• Vibration: 20-2000 Hz • 7.69 Grms • Test Duration: 1hr/axis	Fail
Shock (Functional)	MIL-STD-810H, Method 516.8, Procedure I	• Pulse shape: Half-sine • Acceleration: 185 g • Pulse duration: 2 ms • Shock direction: 6 faces (+/-X, +/-Y, +/-Z axes) • Number of shocks: 1 shock/axis/direction (total 6 shocks) • Unit is operational during both test	Fai;
Shock (Transportation shock)	MIL-STD-810H, Method 516.8, Procedure II: material to be packaged	• On-road shock: 5.10 g/11 ms (Table 516.8-VII) • Off-road shocks: 15.20 g/5 ms (Table 516.8-VII) • Test unit orientations: x, y, and z axis for both test • Unit is non-operational during both test	Pass
Shock - Crash Hazard Shock	MIL-STD-810H, Method 516.8 Procedure V	Non-Operational. 185 g, 2 ms Half Sine 2 shocks/axis/direction for a total of 12 shocks	Pass

Acoustic noise emission information

The following table lists the acoustic noise emission information of your OptiPlex Small Form Factor Plus 7020.

Declared noise emission values are in accordance with ISO 9296. Testing performed in compliance with ISO 7779 with operating modes defined by ECMA-74.

Table 69. OptiPlex Small Form Factor Plus 7020 with i9-14900 processor/4 x 32 GB memory/1 TB SSD/300 W Power supply(Single SSD configuration)

Component	Test Configuration
CPU	14th Generation Intel Core i9-14900 vPro
Memory	32 GB + 32 GB + 32 GB + 32 GB
SSD	1 TB
ODD	DVD+/-RW, 8X, 9.5T
Graphics Adapter	Intel UHD Graphics 770
Power supply	240 W Platinum

Table 70. Declared Sound Power (LWAd)

Operating Mode	Sound Power, Declared mean A-wieghted level, $L_{WA,m}$ (bels)	Sound Power, Statistical adder for verification, K_V (bels)
Idle	2.80	0.4
Storage Operating	3.40	0.4
CPU Operating	3.40	0.4
ODD Operating	4.90	0.4

Table 71. A-Weighted Sound Pressure Level (dB)

Operating Mode	Sound Pressure Declared mean A weighted emission level, $L_{pA,m}$, Operator (dB)	Sound Power, Statistical adder for verification, K_V, Bystander (bels)
Idle	17.20	19.70
Storage Operating	25	28.90
CPU Operating	26.20	28.90
ODD Operating	37.40	40.30

Table 72. OptiPlex Small Form Factor Plus 7020 with i9-14900 vPro processor/4 x 32 GB memory/1 TB SSD/300 W Power supply (Category D configuration)

Component	Test Configuration
CPU	14th Generation Intel Core i9-14900 vPro
Memory	32 GB + 32 GB + 32 GB + 32 GB
SSD	1 TB
HDD(#, capacity)	2 TB, 7200 RPM, 3.5-inch, SATA 3.0, HDD
ODD	DVD+/-RW, 8X, 9.5T
Graphics Adapter	AMD Radeon RX 6500, 4 GB GDDR6
Power supply	3000 W Platinum

Table 73. Declared Sound Power (LWAd)

Operating Mode	Sound Power, Declared mean A-wieghted level, $L_{WA,m}$ (bels)	Sound Power, Statistical adder for verification, K_V (bels)
Idle	2.80	0.4
Storage Operating	3.20	0.4
CPU Operating	3.70	0.4
ODD Operating	4.60	0.4

Table 74. A-Weighted Sound Pressure Level (dB)

Operating Mode	Sound Pressure Declared mean A weighted emission level, $L_{pA,m}$, Operator (dB)	Sound Power, Statistical adder for verification, K_V, Bystander (bels)
Idle	17.90	21.50
Storage Operating	21.20	25
CPU Operating	27.40	30.70
ODD Operating	37.80	40.30

All tests are conducted according to ISO 7779 and declared according to ISO 9296 except CPU Stressed. This test mode is not specified in ISO 7779, but was measured using the same microphone distances and measurement techniques defined for the other reported operating modes.

Declared Sound Power rounded to nearest tenth of a bel per ISO 9296 section 4.4.2

Chassis enclosure and ventilation requirements

Enclosure ventilation

If your enclosure has doors, they need to be of a type that allows at least 30% airflow through the enclosure (front and back).

Enclosure minimum clearance

Leave a 10.20 cm (4 in.) minimum clearance on all vented sides of the computer to permit the airflow required for proper ventilation.

Recommended enclosure

Do not install your computer in an enclosure that does not allow airflow/dusty environment/temperate over 35°C. Do not put any objects to directly block air-vent. This restricts the airflow and impacts your computer's performance, possibly causing it to overheat.

Open desk minimum clearance

If your computer is installed in a corner, on a desk, or under a desk, leave at least 5.10 cm (2 in.) clearance from the back of the computer to the wall to permit the airflow required for proper ventilation.

System management features

Dell commercial systems come with a number of systems management options that are include by default for In-Band management with our Dell Client Command Suite. In-Band management meaning that the Operating System is functional and the device is connected to a network so that it can be managed. The Dell Client Command Suite of tools can be leveraged individually or with a systems management console like SCCM, LANDESK, KACE, etc.

We also offer Out-of-Band management as an option. Out-of-band management is when the system does not have a functional operating system or is turned off and you still want to be able to manage the system in that state.

Dell Client Command Suite for in-band systems management

Dell Client Command Suite is a free toolkit available for download, for all Latitude Rugged tablets at dell.com/support, that automates and streamlines systems management tasks, saving time, money, and resources. It consists of the following modules that can be used independently, or with a variety of systems management consoles such as SCCM.

Dell Client Command Suite's integration with VMware Workspace ONE Powered by AirWatch, now allows customers to manage their Dell client hardware from the cloud, using a single Workspace ONE console.

Dell Command | Deploy enables easy operating system (OS) deployment across all major OS deployment methodologies and provides numerous system-specific drivers that have been extracted and reduced to an OS-consumable state.

Dell Command I Configure is a graphical user interface (GUI) admin tool for configuring and deploying hardware settings in a pre-OS or post-OS environment, and it operates seamlessly with SCCM and Airwatch and can be self-integrated into LANDesk and KACE. Simply, this is all about the BIOS. Command I Configure allows you to remotely automate and configure over 150+ BIOS settings for a personalized user experience.

Dell Command I PowerShell Provider can do the same things as Command I Configure, but with a different method. PowerShell is a scripting language that allows customers to create a customized and dynamic configuration process.

Dell Command I Monitor is a Windows Management Instrumentation (WMI) agent that provides IT admins with an extensive inventory of the hardware and health-state data. Admins can also configure hardware remotely by using command line and scripting.

Dell Command | Update (end-user tool) is factory-installed and allows admins to individually manage and automatically present and install Dell updates to the BIOS, drivers, and software. Command I Update eliminates the time-consuming hunting and pecking process of update installation.

Dell Command I Update Catalog provides searchable metadata that allows the management console to retrieve the latest system-specific updates (driver, firmware or BIOS). The updates are then delivered seamlessly to end-users using the customer's systems management infrastructure that is consuming the catalog (like SCCM).

Dell Command | vPro Out of Band console extends hardware management to systems that are offline or have an un-reachable OS (Dell exclusive features).

Dell Command | Integration Suite for System Center - This suite integrates all the key components of the Client Command Suite into Microsoft System Center Configuration Manager 2012 and Current Branch versions.

Out-of-band systems management

Intel Standard Manageability option **must be configured in our factory at the time of purchase, as it is NOT field upgradable.** It offers out-of-band management and DASH compliance (https://registry.dmtf.org/registry/results/field_initiative_name%3A%22DASH%201.0%22).

4

Getting help and contacting Dell

Self-help resources

You can get information and help on Dell products and services using these self-help resources:

Table 75. Self-help resources

Self-help resources	Resource location
Information about Dell products and services	www.dell.com
Tips	
Contact Support	In Windows search, type `Contact Support`, and press Enter.
Online help for operating system	www.dell.com/support/windows www.dell.com/support/linux
Access top solutions, diagnostics, drivers and downloads, and learn more about your computer through videos, manuals, and documents.	Your Dell computer is uniquely identified by a Service Tag or Express Service Code. To view relevant support resources for your Dell computer, enter the Service Tag or Express Service Code at www.dell.com/support. For more information about how to find the Service Tag for your computer, see Locate the Service Tag on your computer.
Dell knowledge base articles	1. Go to www.dell.com/support. 2. On the menu bar at the top of the Support page, select **Support** > **Knowledge Base**. 3. In the Search field on the Knowledge Base page, type the keyword, topic, or model number, and then click or tap the search icon to view the related articles.

Contacting Dell

To contact Dell for sales, technical support, or customer service issues, see www.dell.com/contactdell.

NOTE: Availability varies by country/region and product, and some services may not be available in your country/region.

NOTE: If you do not have an active Internet connection, you can find contact information about your purchase invoice, packing slip, bill, or Dell product catalog.

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Za najnovije informacije o ceni, dostupnim akcijama i tehničkim karakteristikama proizvoda koji se pominje u ovom dokumentu, molimo posetite našu stranicu klikom na sledeći link:

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