

OptiPlex Small Form Factor Plus 7020

Technical Guidebook

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.

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Views of OptiPlex Small Form Factor Plus 7020

Front

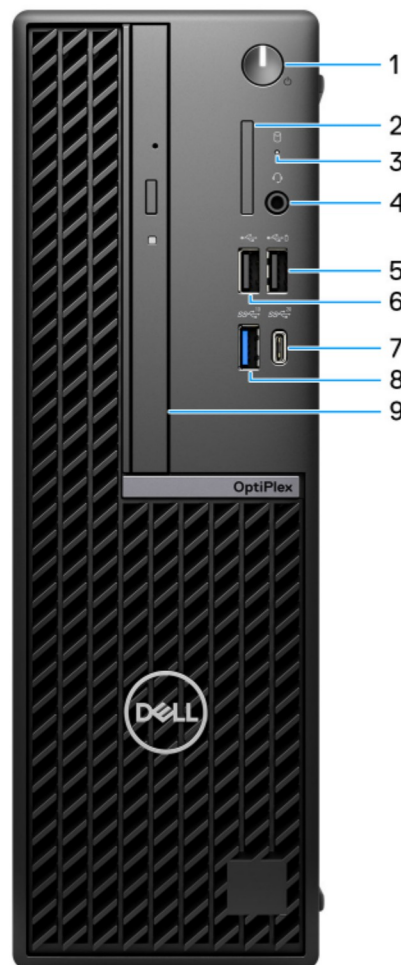


Figure 1. Front view

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

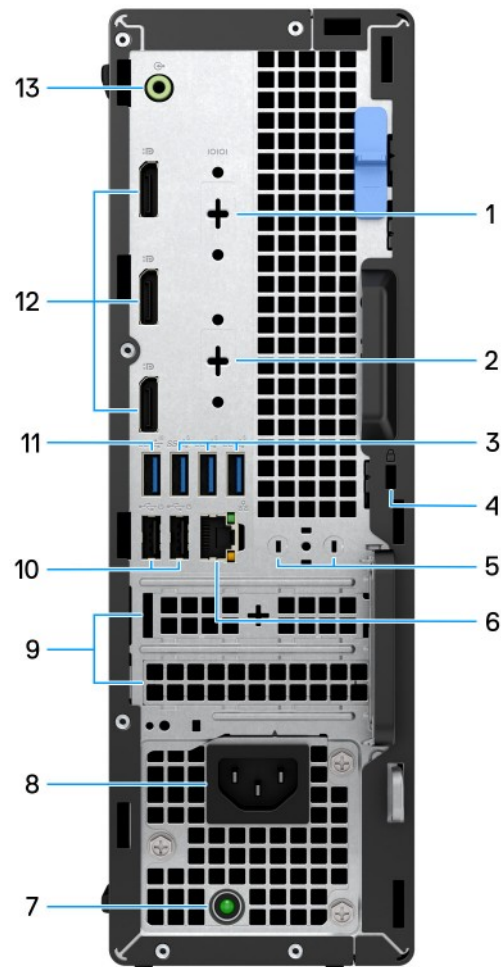


Figure 2. Back view

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.

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-adaptor 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
SafelD 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.