


OptiPlex 3090 Small Form Factor

Setup and Specifications

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.

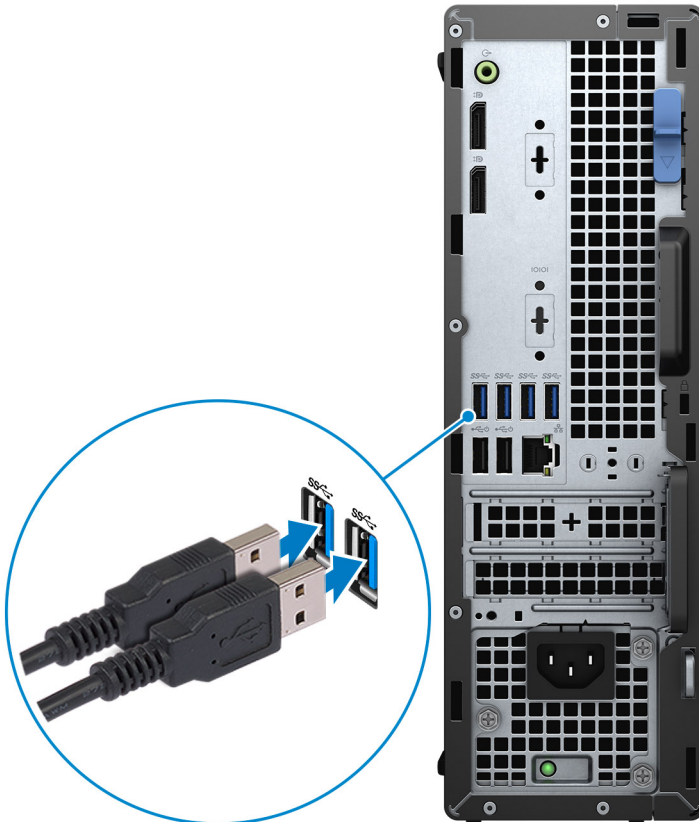
Contents

Chapter 1: Set up your OptiPlex 3090 Small Form Factor	4
Chapter 2: Views of OptiPlex 3090 Small Form Factor	9
Display.....	9
Back.....	10
Service Tag.....	10
Chapter 3: Specifications of OptiPlex 3090 Small Form Factor	12
Dimensions and weight.....	12
Processor.....	12
Chipset.....	13
Operating system.....	14
Memory.....	14
Memory configuration matrix	15
External ports.....	15
Internal slots.....	16
Ethernet.....	16
Wireless module.....	16
Audio.....	17
Storage.....	17
Power ratings.....	18
Power Supply power cable specs.....	19
GPU—Integrated.....	19
GPU—Discrete.....	19
Multiple display support matrix.....	19
Hardware security.....	20
Environmental.....	21
Software security.....	21
Energy Star, EPEAT and Trusted Platform Module (TPM).....	22
Operating and storage environment.....	22
Chapter 4: Ethernet drivers on corporate OS image	23
Chapter 5: Getting help and contacting Dell	25

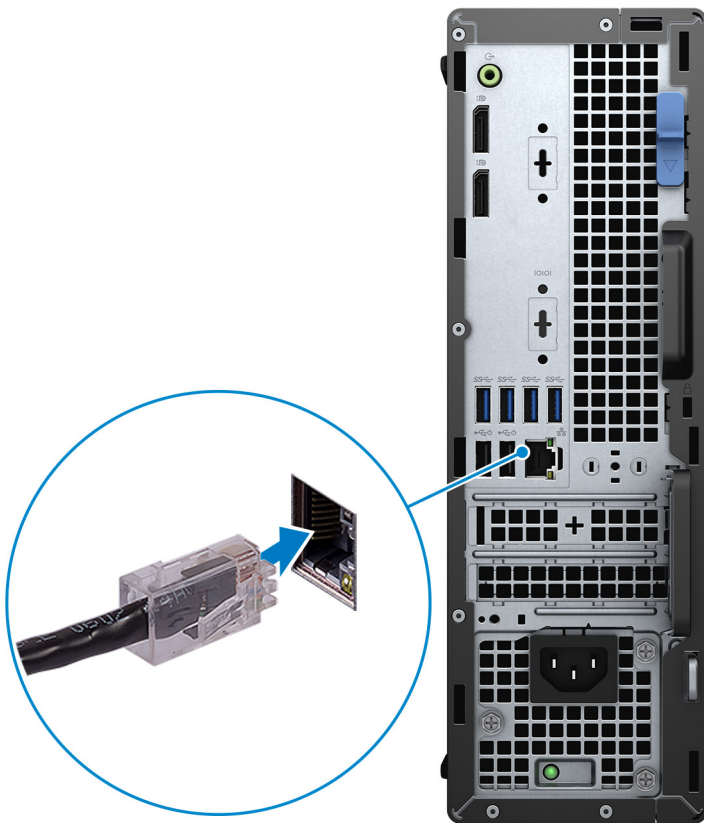
Set up your OptiPlex 3090 Small Form Factor

The images in this document may differ from your computer depending on the configuration you ordered.

1. Connect the keyboard and mouse.



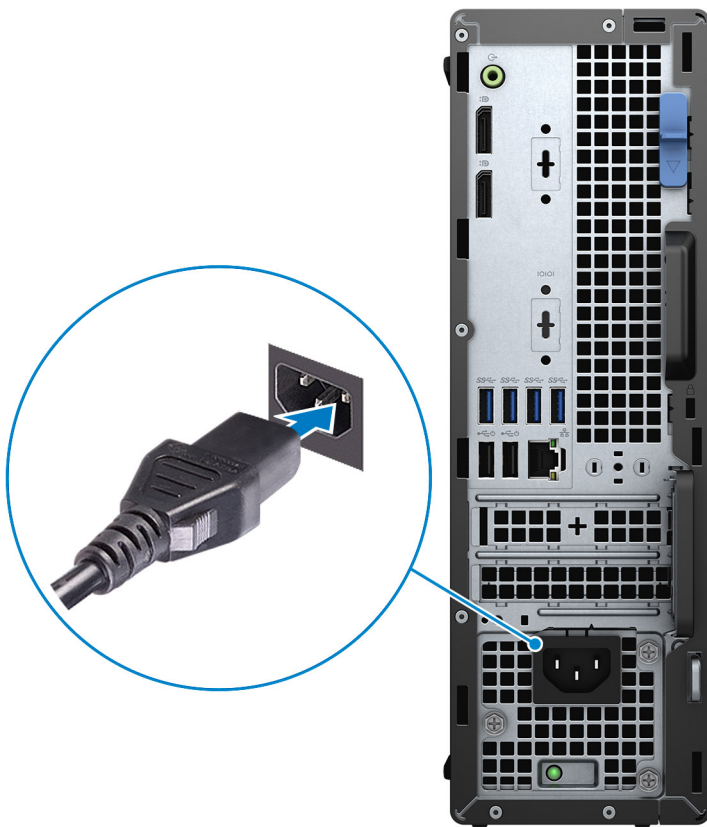
2. Connect to your network using a cable, or connect to a wireless network.



3. Connect the display.



4. Connect the power cable.



5. Press the power button.



6. Finish operating system setup.

For Ubuntu:

Follow the on-screen instructions to complete the setup. For more information about installing and configuring Ubuntu, see the knowledge base articles [SLN151664](#) and [SLN151748](#) at www.dell.com/support.

For Windows:

Follow the on-screen instructions to complete the setup. When setting up, Dell recommends that you:

- Connect to a network for Windows updates.
 - **NOTE:** If connecting to a secured wireless network, enter the password for the wireless network access when prompted.
- If connected to the internet, sign-in with or create a Microsoft account. If not connected to the internet, create an offline account.
- On the **Support and Protection** screen, enter your contact details.

7. Locate and use Dell apps from the Windows Start menu—Recommended.

Table 1. Locate Dell apps







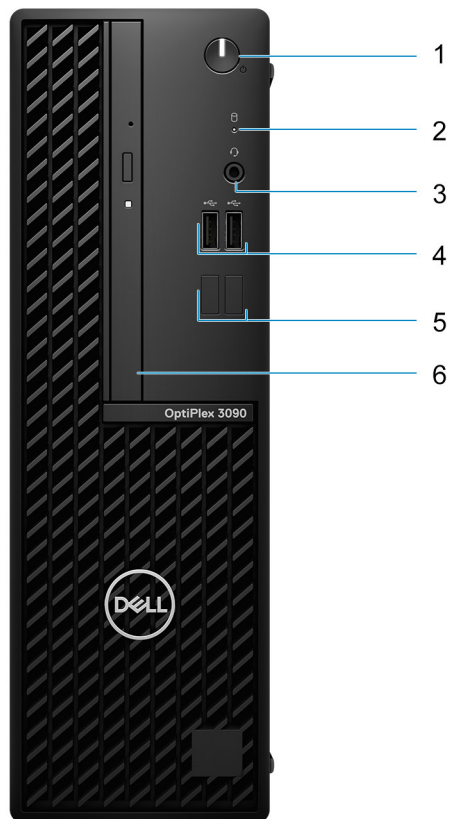
Resources	Description
	<p>Dell Product Registration</p> <p>Register your computer with Dell.</p>
	<p>Dell Help & Support</p> <p>Access help and support for your computer.</p>

Table 1. Locate Dell apps (continued)

Resources	Description
	<p>My Dell</p> <p>Centralized location for key Dell applications, help articles, and other important information about your computer. It also notifies you about the warranty status, recommended accessories, and software updates if available.</p>
	<p>SupportAssist</p> <p>SupportAssist is the smart technology that keeps your computer running at its best by optimizing settings, detecting issues, removing viruses and notifies when you need to make system updates. SupportAssist proactively checks the health of your system's hardware and software. When an issue is detected, the necessary system state information is sent to Dell to begin troubleshooting. SupportAssist is preinstalled on most of the Dell devices running Windows operating system. For more information, see SupportAssist for Home PCs User's Guide on www.dell.com/serviceabilitytools.</p> <p>NOTE: In SupportAssist, click the warranty expiry date to renew or upgrade your warranty.</p>
	<p>Dell Update</p> <p>Updates your computer with critical fixes and latest device drivers as they become available. For more information about using Dell Update, see the knowledge base article 000149088 at www.dell.com/support.</p>
	<p>Dell Digital Delivery</p> <p>Download software applications, which are purchased but not pre-installed on your computer. For more information about using Dell Digital Delivery, see the knowledge base article 000129837 at www.dell.com/support.</p>

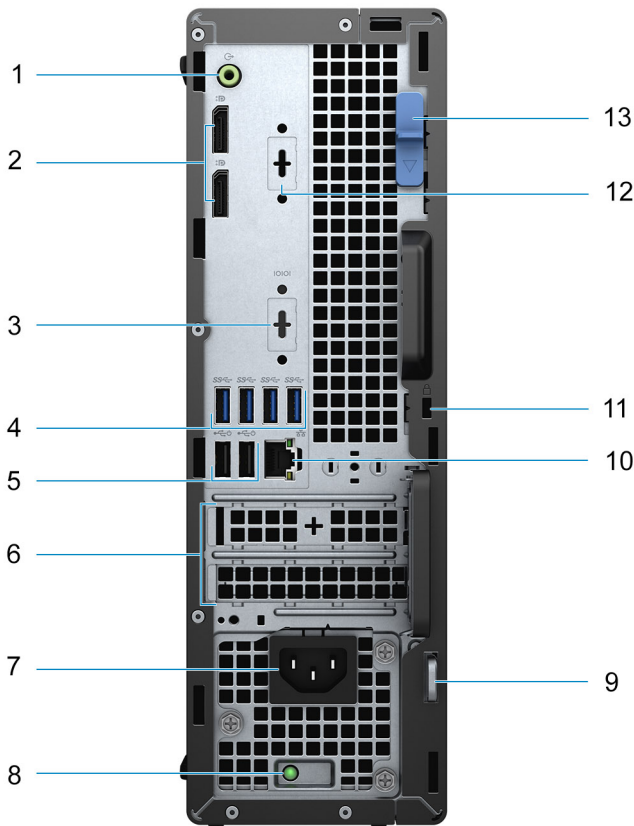
Views of OptiPlex 3090 Small Form Factor

Display



1. Power button
i **NOTE:** The power button also works as the diagnostic LED.
2. Hard-drive activity light
3. Universal audio port
4. USB 2.0 ports
5. Dummy slots
6. Optical drive (optional)

Back



1. Re-tasking Line-out/Line-in audio port
2. DisplayPort 1.4 ports
3. Serial/PS2 port (optional)
4. USB 3.2 Gen 1 ports
5. USB 2.0 ports with SmartPower On
6. Expansion card slots
7. Power connector port
8. Power-supply diagnostic light
9. Padlock ring
10. RJ-45 Ethernet port
11. Kensington security-cable slot
12. VGA/DisplayPort 1.4/HDMI 2.0b (optional)
13. Release latch

Service Tag

The service tag is a unique alphanumeric identifier that allows Dell service technicians to identify the hardware components in your computer and access warranty information.



Specifications of OptiPlex 3090 Small Form Factor

Dimensions and weight

The following table lists the height, width, depth, and weight of your OptiPlex 3090 Small Form Factor .

Table 2. Dimensions and weight

Description	Values
Height:	
Front height	290 mm (11.42 in.)
Rear height	290 mm (11.42 in.)
Width	92.60 mm (3.65 in.)
Depth	292.80mm (11.53 in.)
Weight (maximum)	<ul style="list-style-type: none"> • Minimum: 3.79 kg (8.37 lb) • Maximum: 5.10 kg (11.25 lb) <p>NOTE: The weight of your computer depends on the configuration ordered and manufacturing variability.</p>

Processor

The following table lists the details of the processors that are supported by your OptiPlex 3090 Small Form Factor .

NOTE: Global Standard Products (GSP) are a subset of Dell's relationship products that are managed for availability and synchronized transitions on a worldwide basis. They ensure the same platform is available for purchase globally. This allows customers to reduce the number of configurations managed on a worldwide basis, thereby reducing their costs. They also enable companies to implement global IT standards by locking in specific product configurations worldwide.

Device Guard (DG) and Credential Guard (CG) are the security features that are available on Windows 10 Enterprise.

Device Guard is a combination of enterprise-related hardware and software security features that, when configured together, will lock a device down so that it can only run trusted applications. If it is not a trusted application, it cannot run.

Credential Guard uses virtualization-based security to isolate secrets (credentials) so that only privileged system software can access them. Unauthorized access to these secrets can lead to credential theft attacks. Credential Guard prevents these attacks by protecting NTLM password hashes and Kerberos Ticket Granting Tickets.

NOTE: Processor numbers are not a measure of performance. Processor availability is subject to change and may vary by region/country.

Table 3. Processor

Processors	Wattage	Core count	Thread count	Speed	Cache	Integrated graphics
10 th Generation Intel Core i5-10400	65 W	6	12	2.90 GHz to 4.30 GHz	12 MB	Intel UHD Graphics 630
10 th Generation Intel Core i5-10500	65 W	6	12	3.10 GHz to 4.50 GHz	12 MB	Intel UHD Graphics 630
10 th Generation Intel Core i5-10600	65 W	6	12	3.30 GHz to 4.80 GHz	12 MB	Intel UHD Graphics 630
10 th Generation Intel Core i3-10100	65 W	4	8	3.60 GHz to 4.30 GHz	6 MB	Intel UHD Graphics 630
10 th Generation Intel Core i3-10300	65 W	4	8	3.70 GHz to 4.40 GHz	8 MB	Intel UHD Graphics 630
10 th Generation Intel Core i3-10105	65 W	4	8	3.70 GHz to 4.40 GHz	6 MB	Intel UHD Graphics 630
10 th Generation Intel Core i3-10305	65 W	4	8	3.80 GHz to 4.50 GHz	8 MB	Intel UHD Graphics 630
10 th Generation Intel Core i3-10505	65 W	6	12	3.20 GHz to 4.60 GHz	12 MB	Intel UHD Graphics 630
Intel Celeron G5905	58 W	2	2	Up to 3.50 GHz	4 MB	Intel UHD Graphics 610
Intel Pentium Gold G6405	58 W	2	4	Up to 4.10 GHz	4 MB	Intel UHD Graphics 610
Intel Pentium Gold G6505	58 W	2	4	Up to 4.20 GHz	4 MB	Intel UHD Graphics 610

Chipset

The following table lists the details of the chipset supported by your OptiPlex 3090 Small Form Factor .

Table 4. Chipset

Description	Values
Chipset	Q470
Processor	10 th Generation Intel Core i3/i5 and Intel Celeron/Pentium
DRAM bus width	64-bit
Flash EPROM	32 MB, dual-channel

Table 4. Chipset (continued)

Description	Values
PCIe bus	Up to Gen 3.0

Operating system

Your OptiPlex 3090 Small Form Factor supports the following operating systems:

- Windows 10 Enterprise LTSC, 64-bit
- Windows 11 Home, 64-bit
- Windows 11 Pro, 64-bit
- Windows 11 Downgrade (Windows 10 image)
- Windows 11 Pro Education, 64-bit
- Windows 11 CMIT Government Edition, 64-bit
- Kylin Linux Desktop version 10.1 (China only)
- Ubuntu Linux 20.04 LTS, 64-bit

Memory

The following table lists the memory specifications of your OptiPlex 3090 Small Form Factor .

Table 5. Memory specifications

Description	Values
Memory slots	Two UDIMM slots
Memory type	DDR4
Memory speed	2666 MHz
Maximum memory configuration	64 GB
Minimum memory configuration	4 GB
Memory size per slot	4 GB, 8GB, 16 GB, 32 GB
Memory configurations supported	<ul style="list-style-type: none"> • 4 GB, 1 x 4 GB, DDR4, 2666 MHz, non-ECC • 8 GB, 1 x 8 GB, DDR4, 2666 MHz, non-ECC • 8 GB, 2 x 4 GB, DDR4, 2666 MHz, non-ECC, dual-channel • 16 GB, 1 x 16 GB, DDR4, 2666 MHz, non-ECC • 16 GB, 2 x 8 GB, DDR4, 2666 MHz, non-ECC, dual-channel • 32 GB, 1 x 32 GB, DDR4, 2666 MHz, non-ECC • 32 GB, 2 x 16 GB, DDR4, 2666 MHz, non-ECC, dual-channel • 64 GB, 2 x 32 GB, DDR4, 2666 MHz, non-ECC, dual-channel

Memory configuration matrix

Table 6. Memory configuration matrix

Configuration	Slot	
	UDIMM1	UDIMM2
4 GB DDR4	4 GB	
8 GB DDR4	4 GB	4 GB
8 GB DDR4	8 GB	
16 GB DDR4	8 GB	8 GB
16 GB DDR4	16 GB	
32 GB DDR4	16 GB	16 GB
32 GB DDR4	32 GB	
64 GB DDR4	32 GB	32 GB

External ports

The following table lists the external ports of your OptiPlex 3090 Small Form Factor .

Table 7. External ports

Description	Values
Network port	One RJ-45 Ethernet port
USB ports	<ul style="list-style-type: none"> • Two USB 2.0 port (front) • Four USB 3.2 Gen 1 ports (rear) • Two USB 2.0 ports with SmartPower on (rear)
Audio port	<ul style="list-style-type: none"> • One Universal audio port (front) • One Re-tasking Line-out/Line-in audio port (rear)
Video port	<ul style="list-style-type: none"> • Two DisplayPort 1.4 ports (rear) • One VGA/DisplayPort 1.4/HDMI 2.0b port (rear, optional) <p>i NOTE: Download and install the latest Intel Graphics driver from www.dell.com/support to enable multiple displays.</p>
Media-card reader	Not supported
Power-adapter port	Not supported
Security-cable slot	<ul style="list-style-type: none"> • One Kensington security-cable slot • One Padlock ring

Internal slots

The following table lists the internal slots of your OptiPlex 3090 Small Form Factor .

Table 8. Internal slots

Description	Values
Expansion	<ul style="list-style-type: none"> One half-height Gen 3 PCIe x16 slot One half-height Gen 3 PCIe x1 slot
SATA	Two SATA 3.0 slots for 3.5/2.5-inch hard drive, slim optical drive
M.2	<ul style="list-style-type: none"> One M.2 2230 slot for WiFi and Bluetooth card One M.2 2230/2280 slot for SSD <p>NOTE: To learn more about the features of different types of M.2 cards, see the knowledge base article SLN301626 at www.dell.com/support.</p>

Ethernet

The following table lists the wired Ethernet Local Area Network (LAN) specifications of your OptiPlex 3090 Small Form Factor .

Table 9. Ethernet specifications

Description	Values
Model number	<ul style="list-style-type: none"> Intel Ethernet I219-LM Realtek RTL8111KD <p>NOTE: Your system is configured with one of two ethernet models. For more information see Ethernet drivers on corporate OS image</p>
Transfer rate	10/100/1000 Mbps

Wireless module

The following table lists the Wireless Local Area Network (WLAN) module specifications of your OptiPlex 3090 Small Form Factor .

Table 10. Wireless module specifications

Description	Option one	Option two	Option three
Model number	Qualcomm QCA61x4A (DW1820)	Intel AX201	Intel 9462
Transfer rate	867 Mbps	2400 Mbps	433 Mbps
Frequency bands supported	2.4 GHz/5 GHz	2.4 GHz/5 GHz	2.4 GHz/5 GHz
Wireless standards	<ul style="list-style-type: none"> WiFi 802.11a/b/g Wi-Fi 4 (WiFi 802.11n) Wi-Fi 5 (WiFi 802.11ac) 	<ul style="list-style-type: none"> WiFi 802.11a/b/g Wi-Fi 4 (WiFi 802.11n) Wi-Fi 5 (WiFi 802.11ac) Wi-Fi 6 (WiFi 802.11ax) 	<ul style="list-style-type: none"> WiFi 802.11a/b/g Wi-Fi 4 (WiFi 802.11n) Wi-Fi 5 (WiFi 802.11ac)

Table 10. Wireless module specifications (continued)

Description	Option one	Option two	Option three
Encryption	<ul style="list-style-type: none"> 64-bit/128-bit WEP AES-CCMP TKIP 	<ul style="list-style-type: none"> 64-bit/128-bit WEP AES-CCMP TKIP 	<ul style="list-style-type: none"> 64-bit/128-bit WEP AES-CCMP TKIP
Bluetooth	Bluetooth 5.0	Bluetooth 5.2	Bluetooth 5.1

Audio

The following table lists the audio specifications of your OptiPlex 3090 Small Form Factor .

Table 11. Audio specifications

Description	Values
Audio controller	Waves MaxxAudio API
Stereo conversion	Not supported
Internal audio interface	Intel HDA (high-definition audio)
External audio interface	<ul style="list-style-type: none"> One Universal audio port (front) One Re-tasking Line-out/Line-in audio port (rear)
Number of speakers	One
Internal-speaker amplifier	Not supported
External volume controls	Keyboard shortcut controls
Speaker output:	
Average speaker output	2 W
Peak speaker output	2.5 W
Subwoofer output	Not supported
Microphone	Not supported

Storage

Your computer supports one of the following configurations:

Table 12. Storage Matrix

Storage	2.5-inch hard drive	3.5-inch hard drive	M.2 socket	1st Bootable Device
2.5-inch hard drive	Y	N	N	2.5-inch hard drive
3.5-inch hard drive	N	Y	N	3.5-inch hard drive
M.2 PCIe solid-state drive	N	N	Y	M.2 solid-state drive

Table 12. Storage Matrix (continued)

Storage		2.5-inch hard drive	3.5-inch hard drive	M.2 socket	1st Bootable Device
M.2 PCIe solid-state drive	3.5-inch hard drive	N	Y	Y	M.2 solid-state drive
M.2 PCIe solid-state drive	2.5-inch hard drive	Y	N	Y	M.2 solid-state drive

Table 13. Storage specifications

Storage type	Interface type	Capacity
2.5-inch, 5400 RPM, hard drive	SATA 3.0	Up to 2 TB
2.5-inch, 7200 RPM, hard drive	SATA 3.0	Up to 1 TB
2.5-inch, 7200 RPM, Opal 2.0 Self-Encrypting, hard drive	SATA 3.0	500 GB
3.5-inch, 5400 RPM, hard drive	SATA 3.0	4 TB
3.5-inch, 7200 RPM, hard drive	SATA 3.0	Up to 2 TB
M.2 2230, Class 35 solid-state drive	PCIe NVMe Gen3 x4	Up to 512 GB
M.2 2230, Class 35 Self-Encrypting solid-state drive	PCIe NVMe Gen3 x4	Up to 256 GB
M.2 2280, Class 40 solid-state drive	PCIe NVMe Gen3 x4	Up to 1 TB
M.2 2280, Class 40 solid-state drive	PCIe NVMe Gen4 x4	Up to 1 TB
M.2 2280, Class 40 Opal Self-Encrypting solid-state drive	PCIe NVMe Gen3 x4	Up to 1 TB

Power ratings

The following table lists the power rating specifications of OptiPlex 3090 Small Form Factor .

Table 14. Power ratings

Description	Option one	Option two
Type	200 W (80 PLUS Bronze)	200 W (80 PLUS Platinum)
Input voltage	90 VAC to 264 VAC	90 VAC to 264 VAC
Input frequency	47 Hz to 63 Hz	47 Hz to 63 Hz
Input current (maximum)	3.2 A	4.2 A
Output current (continuous)	<ul style="list-style-type: none"> ● 12 VA/16.5 A ● 12 VB/14 A Standby mode: <ul style="list-style-type: none"> ● 12 VA/1.5 A ● 12 VB/2.5 A 	<ul style="list-style-type: none"> ● 12 VA/16.5 A ● 12 VB/14 A Standby mode: <ul style="list-style-type: none"> ● 12 VA/1.5 A ● 12 VB/2.5 A
Rated output voltage	12 VDC	12 VDC
Temperature range		

Table 14. Power ratings (continued)

Description		Option one	Option two
	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 power cable specs

Table 15. Power Supply power cable specs

260 W (80 PLUS Bronze)	<ul style="list-style-type: none"> Two 4 pin connectors for processor One 6 pin connector for system board
260 W (80 PLUS Platinum)	<ul style="list-style-type: none"> Two 4 pin connectors for processor One 6 pin connector for system board

GPU—Integrated

The following table lists the specifications of the integrated Graphics Processing Unit (GPU) supported by your OptiPlex 3090 Small Form Factor .

Table 16. GPU—Integrated

Controller	Memory size	Processor
Intel UHD Graphics 630	Shared system memory	10 th Generation Intel Core i3/i5
Intel UHD Graphics 610	Shared system memory	Intel Celeron/Pentium

GPU—Discrete

The following table lists the specifications of the discrete Graphics Processing Unit (GPU) supported by your OptiPlex 3090 Small Form Factor .

Table 17. GPU—Discrete

Controller	Memory size	Memory type
NVIDIA GeForce GT730	2 GB	GDDR5
AMD Radeon RX640	4 GB	GDDR5
AMD Radeon 550	2 GB	GDDR5
AMD Radeon 540	1 GB	GDDR5

Multiple display support matrix

Table 18. Integrated graphics card

Graphics Card	Intel UHD 610	Intel UHD 630
Video ports on Integrated Graphics Card	<ul style="list-style-type: none"> 2 x DisplayPort 1.4 port 	<ul style="list-style-type: none"> 2 x DisplayPort 1.4 port
Video port on Option Video module	<ul style="list-style-type: none"> 1 x DisplayPort 1.4 port (optional) 	<ul style="list-style-type: none"> 1 x DisplayPort 1.4 port (optional)

Table 18. Integrated graphics card (continued)

Graphics Card	Intel UHD 610	Intel UHD 630
	<ul style="list-style-type: none"> • 1 x VGA (optional) • 1 x HDMI 2.0 (optional) 	<ul style="list-style-type: none"> • 1 x VGA (optional) • 1 x HDMI 2.0 (optional)
Number of displays	3	3

Table 19. Discrete graphics card

Graphics Card	NVIDIA GT730	AMD Radeon RX 640	AMD Radeon 550	AMD Radeon 540
Memory	2 GB GDDR5	4 GB GDDR5	2 GB GDDR5	1 GB GDDR5
Video Ports	<ul style="list-style-type: none"> • 2 x DisplayPort 1.2 ports 	<ul style="list-style-type: none"> • 2 x Mini-DisplayPort 1.4 ports • 1 x DisplayPort 1.4 port 	<ul style="list-style-type: none"> • 2 x DisplayPort 1.4 ports 	<ul style="list-style-type: none"> • 2 x DisplayPort 1.4 ports
Max Displays (direct connect)	2	3	2	2
Max Displays (DP multi-stream)	4	4	4	4
Number of displays	2	3	2	2
Supported Resolution	3840 x 2160	5120 x 2880 @ 60 Hz	5120 x 2880 @ 60 Hz	5120 x 2880 @ 60 Hz
Total Power	30 W	50 W	50 W	50 W

Hardware security

The following table lists the hardware security of your OptiPlex 3090 Small Form Factor .

Table 20. Hardware security

Hardware security
1 Kensington security-cable slot
1 Padlock loop
Chassis intrusion switch
SafelID 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
Physical Security Options: Chassis lock slot support, Chassis Intrusion Switch, Lockable Cable Covers, Supply chain tamper alerts

Environmental

The following table lists the environment specifications supported by your OptiPlex 3090 Small Form Factor .

Table 21. Environmental specifications

Feature	OptiPlex 3090 Tower
Recyclable packaging	Yes
BFR/PVC—free chassis	No
MultiPack packaging	Yes (US only) (optional)
Energy-Efficient Power Supply	Standard
ENV0424 compliant	Yes

i **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.

Software security

The following table lists the software security details of your OptiPlex 3090 Small Form Factor .

Table 22. Software security

Security options	OptiPlex 3090 Small Form Factor
McAfee Small Business Security 30 Day Free Trial	Supported
McAfee Small Business Security 12-month subscription	Supported
McAfee Small Business Security 36 month Subscription	Supported
Intel Guard Technologies & Secure Key: Software Guard (SGX), Data Guard (vPro only), Boot Guard, BIOS Guard (Core CPU's only), OS Guard (Core CPU's only) and Secure Key (i5 or greater only)	Supported
Absolute Control (up to 3 years)	Supported
Absolute Resilience (up to 3 years)	Supported
Dell Encryption Enterprise (up to 3 years)	Supported
Dell Encryption Personal (up to 3 years)	Supported
Emergency Incident Response	Supported
Encryption-SED HDD (Opal FIPS)	Supported
Endpoint Detection and Response (EDR)	Supported
Incident Management Retainer	Supported
Local HDD data wipe via BIOS (“Secure Erase”)	Supported
Managed Endpoint Detection and Response	Supported
Next Generation Antivirus (NGAV)	Supported
SafeGuard and Response, powered by VMware Carbon Black and Secureworks	Supported
Threat Detection and Response (TDR)	Supported

Table 22. Software security (continued)

Security options	OptiPlex 3090 Small Form Factor
Support of Absolute Persistent Module BIOS agent v2	Supported
VMware Carbon Black Cloud Endpoint Standard NGAV, B-EDR (up to 3 years)	Supported
VMware Carbon Black Cloud Endpoint Standard NGAV,B-EDR+Secureworks TDR (Data center housed in US, up to 3 years)	Supported

Energy Star, EPEAT and Trusted Platform Module (TPM)

Table 23. Energy Star, EPEAT and TPM

Features	Specifications
Energy Star 8.0	Compliant configurations available
EPEAT	Gold and Silver compliant configurations available
Trusted Platform Module (TPM) 2.0 ^{1,2}	Integrated on system board
Firmware-TPM (Discrete TPM disabled)	Optional

NOTE:

¹TPM 2.0 is FIPS 140-2 certified.

²TPM is not available in all countries.

Operating and storage environment

This table lists the operating and storage specifications of your OptiPlex 3090 Small Form Factor .

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

Table 24. Computer environment

Description	Operating	Storage
Temperature range	0°C to 35°C (32°F to 95°F)	-40°C to 65°C (-40°F to 149°F)
Relative humidity (maximum)	10% to 90% (non-condensing)	0% to 95% (non-condensing)
Vibration (maximum)*	0.66 GRMS	1.30 GRMS
Shock (maximum)	110 G†	160 G†
Altitude range	-15.2 m to 3048 m (-49.86 ft to 10000 ft)	-15.2 m to 10668 m (-49.86 ft to 35000 ft)

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.

Ethernet drivers on corporate OS image

The OptiPlex 3090 qualifies as a dual LoM product, which means you may receive Realtek or Intel LoM in your systems, through new orders or system-board service. This impacts your corporate operating system's(OS) image. Please ensure that the OS image is built with both Realtek and Intel drivers to avoid any issues with future purchases.

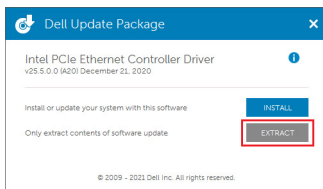
The drivers can be found on the Dell support website:www.dell.com/support/windows.

If customers build their self-made corporate images on systems with different LoM chipsets (i.e. Intel, Realtek), they may encounter yellow band issue (due to different onboard LAN Driver). If customers use the Dell shipping image or Dell OSRI image, the system will auto-detect and install the right drivers.

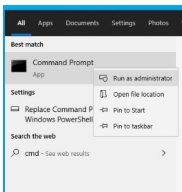
The two drivers can be preinstalled into the OS image via INF installation process. Please see this article on [preinstalling-driver-packages](#) for details.

Follow these steps should the yellow band error occur when using a corporate OS image on systems:

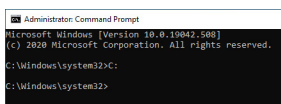
1. Download the Intel and Realtek LAN drivers from Dell support website: www.dell.com/support/windows
2. Extract Intel and Realtek LAN drivers.



3. Open command line and run by administrator.

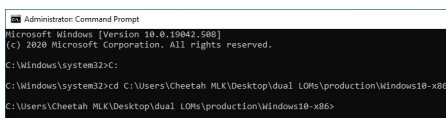


4. Type the extract folder drive volume. In this instance, it is C-drive [C:].

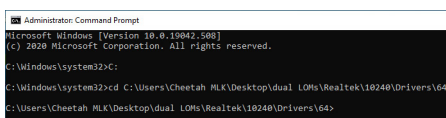


5. Type cd command to go to the driver inf folder:

[For Intel LOM – Win10/Win11] [cd extract folder\production\Windows10-x64\]



[For Realtek LOM – Win10] [cd extract folder\10240\Drivers\64]



[For Realtek LOM – Win11] [cd extract folder\22000\Drivers\64]

```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.19042.508]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Windows\system32>
C:\Windows\system32>cd C:\Users\Cheetah MLK\Desktop\dual_LOMs\Realtek\22000\Drivers\64
C:\Users\Cheetah MLK\Desktop\dual_LOMs\Realtek\22000\Drivers\64>
```

6. Type Microsoft PnpUtil command to add and install the drivers.

```
[pnputil /add-driver *inf /install]
```

[For Intel LOM]

```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.19042.508]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Windows\system32>
C:\Windows\system32>cd C:\Users\Cheetah MLK\Desktop\dual_LOMs\production\Windows10-x86
C:\Users\Cheetah MLK\Desktop\dual_LOMs\production\Windows10-x86>pnputil /add-driver *inf /install
Microsoft PNP Utility

Adding driver package: E1D6832.inf
Driver package added successfully.
Published Name: oem53.inf

Total driver packages: 1
Added driver packages: 1
```

[For Realtek LOM]

```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.19042.508]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Windows\system32>
C:\Windows\system32>cd C:\Users\Cheetah MLK\Desktop\dual_LOMs\Realtek\10240\Drivers\64
C:\Users\Cheetah MLK\Desktop\dual_LOMs\Realtek\10240\Drivers\64>pnputil /add-driver *inf /install
Microsoft PNP Utility

Adding driver package: rt640x64.inf
Driver package added successfully.
Published Name: oem54.inf

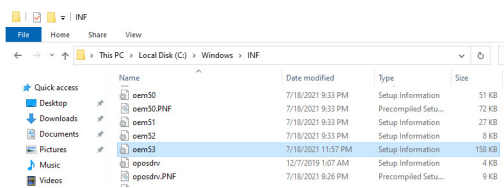
Total driver packages: 1
Added driver packages: 1

C:\Users\Cheetah MLK\Desktop\dual_LOMs\Realtek\10240\Drivers\64>
```

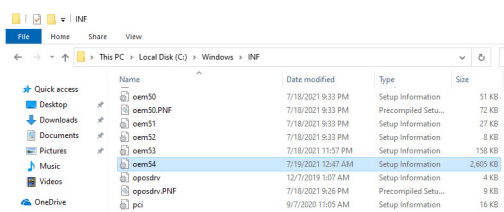
7. Check that the drivers have been successfully added to the system in C:\Windows\INF\. The OEM# (Published Name) could be referred to step #6.

In the case, Intel LAN driver is OEM53.inf and Realtek LAN driver is OEM54.inf.

[For Intel LOM]



[For Realtek LOM]





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 25. Self-help resources

Self-help resources	Resource location
Information about Dell products and services	www.dell.com
My Dell app	
Tips	
Contact Support	In Windows search, type <code>Contact Support</code> , and press Enter.
Online help for operating system	www.dell.com/support/windows
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 on how to find the Service Tag for your computer, see Locate the Service Tag on your computer .
Dell knowledge base articles for a variety of computer concerns	<ol style="list-style-type: none"> 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.