OptiPlex 3090 Micro

Setup and Specifications

Regulatory Model: D14U
Regulatory Type: D14U001
October 2021
Rev. A00

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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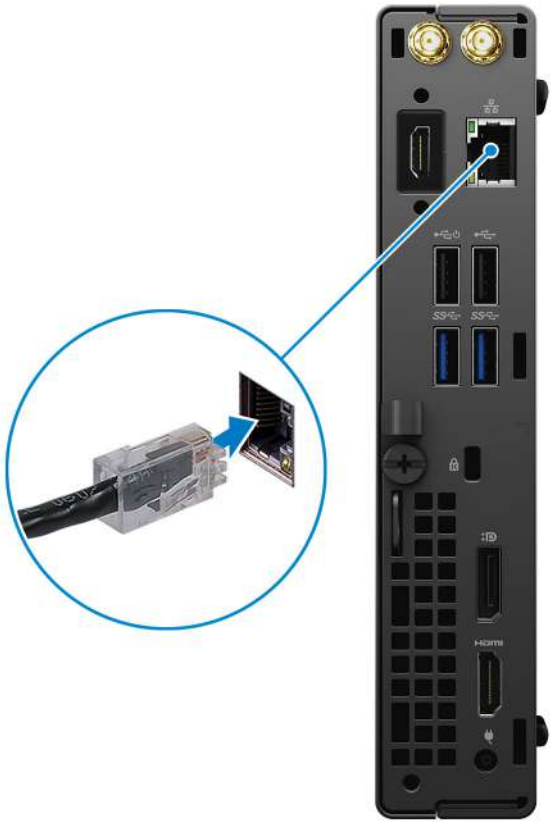
Set up your computer

Steps

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 Windows system setup.

   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

Dell apps	Details
	Dell Product Registration Register your computer with Dell.
	Dell Help & Support Access help and support for your computer.

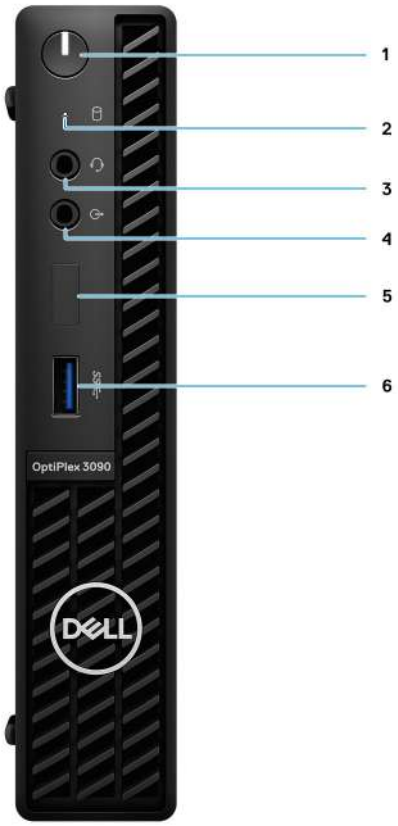
Table 1. Locate Dell apps (continued)

Dell apps	Details
	**SupportAssist** Proactively checks the health of your computer's hardware and software. **NOTE:** Renew or upgrade your warranty by clicking the warranty expiry date in SupportAssist.
	**Dell Update** Updates your computer with critical fixes and important device drivers as they become available.
	**Dell Digital Delivery** Download software applications including software that is purchased but not preinstalled on your computer.

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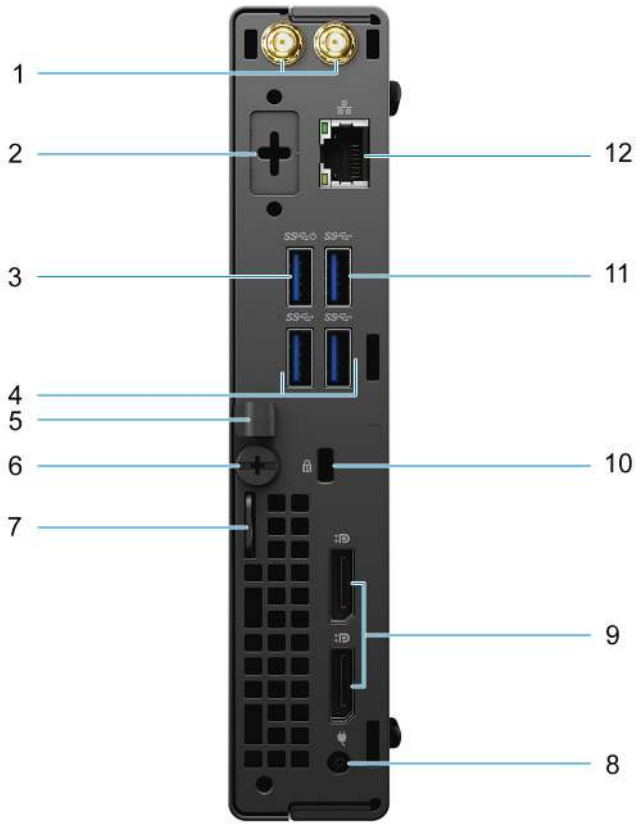
Views of OptiPlex 3090 Micro

Front



1. Power button with diagnostic LED
2. Hard-disk drive activity light
3. Universal audio jack port
4. Re-tasking Line-in/Line out audio port
5. Dummy slot
6. USB 3.2 Gen1 Type-A port

Back



1. External antenna connector
2. Serial/Video Port (Serial/PS2/DP 1.4/HDMI 2.0b/VGA) (optional)
3. USB 3.2 Gen1 Type-A port with Smart Power on
4. Two USB 3.2 Gen 1 Type-A ports
5. DC-in cable clip
6. Thumbscrew
7. Padlock loop
8. Power connector port
9. Two DisplayPort 1.4
10. Kensington security-cable slot
11. USB 3.2 Gen 1 Type-A port
12. RJ-45 port 10/100/1000 Mbps

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.


Service Tag:
xxxxxxxxxx

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Specifications of OptiPlex 3090 Micro

Dimensions and weight

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

Table 2. Dimensions and weight

Description	Values
Height:	
Front height	182.00 mm (7.16 in.)
Rear height	182.00 mm (7.16 in.)
Width	36.00 mm (1.42 in.)
Depth	178.56 mm (7.03 in.)
Weight	1. Minimum: 1.16 kg (2.55 lb) 2. Maximum: 1.28 kg (2.82 lb) **NOTE:** The weight of your computer depends on the configuration ordered and manufacturing variability.

Processors

The following table lists the details of the processors supported by your OptiPlex 3090 Micro

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 only available on Windows 10 Enterprise today.

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. Processors

Processors	Wattage	Core count	Thread count	Speed	Cache	Integrated graphics	GSP	DG/CG Ready
10th Generation Intel Core i3-10100T	35 W	4	8	3.0 GHz to 3.8 GHz	6 MB	Intel UHD Graphics 630	No	Yes
10th Generation Intel Core i3-10105T	35 W	4	8	3.0 GHz to 3.9 GHz	6 MB	Intel UHD Graphics 630	No	Yes
10th Generation Intel Core i3-10300T	35 W	4	8	3.0 GHz to 3.9 GHz	8 MB	Intel UHD Graphics 630	No	Yes
10th Generation Intel Core i3-10305T	35 W	4	8	3.0 GHz to 4.0 GHz	8 MB	Intel UHD Graphics 630	No	Yes
10th Generation Intel Core i5-10400T	35 W	6	12	2.0 GHz to 3.6 GHz	12 MB	Intel UHD Graphics 630	No	Yes
10th Generation Intel Core i5-10500T	35 W	6	12	2.3 GHz to 3.8 GHz	12 MB	Intel UHD Graphics 630	Yes	Yes
10th Generation Intel Core i5-10600T	35 W	6	12	2.4 GHz to 4.0 GHz	12 MB	Intel UHD Graphics 630	Yes	Yes
10th Generation Intel Core i7-10700T	35 W	8	16	2.0 GHz to 4.5 GHz	16 MB	Intel UHD Graphics 630	Yes	Yes
Intel® Celeron G5905T	35 W	2	2	Up to 3.3 GHz	4 MB	Intel UHD Graphics 610	No	Yes
Intel® Pentium G6405T	35 W	2	4	Up to 3.5 GHz	4 MB	Intel UHD Graphics 610	No	Yes
Intel® Pentium G6505T	35 W	2	4	Up to 3.6 GHz	4 MB	Intel UHD Graphics 610	No	Yes

Chipset

The following table lists the details of the chipset supported by your OptiPlex 3090 Micro .

Table 4. Chipset

Description	Values
Chipset	Q470
Processor	10th Generation Intel Core i3/i5/i7 Intel Pentium/Intel Celeron
DRAM bus width	64-bit
Flash EPROM	32 MB, dual-channel
PCIe bus	Up to Gen 3.0

Operating system

Your OptiPlex 3090 Micro supports the following operating systems:

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

Memory

The following table lists the memory specifications of your OptiPlex 3090 Micro .

Table 5. Memory specifications

Description	Values
Memory slots	Two DIMM slots
Memory type	DDR4
Memory speed	2666 MHz/2933 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	• 4 GB, 1 x 4 GB, DDR4, 2666 MHz for Intel® Celeron, Pentium, Core™ i3/i5 processors, 2933 MHz for Intel® Core™ i7 processor • 8 GB, 1 x 8 GB, DDR4, 2666 MHz for Intel® Celeron, Pentium, Core™ i3/i5 processors, 2933 MHz for Intel® Core™ i7 processor

Table 5. Memory specifications (continued)

Description	Values
	• 8 GB, 2 x 4 GB, DDR4, 2666 MHz for Intel® Celeron, Pentium, Core™ i3/i5 processors, 2933 MHz for Intel® Core™ i7 processor • 16 GB, 1 x 16 GB, DDR4, 2666 MHz for Intel® Celeron, Pentium, Core™ i3/i5 processors, 2933 MHz for Intel® Core™ i7 processor • 16 GB, 2 x 8 GB, DDR4, 2666 MHz for Intel® Celeron, Pentium, Core™ i3/i5 processors, 2933 MHz for Intel® Core™ i7 processor • 32 GB, 1 x 32 GB, DDR4, 2666 MHz for Intel® Celeron, Pentium, Core™ i3/i5 processors, 2933 MHz for Intel® Core™ i7 processor • 32 GB, 2 x 16 GB, DDR4, 2666 MHz for Intel® Celeron, Pentium, Core™ i3/i5 processors, 2933 MHz for Intel® Core™ i7 processor • 64 GB, 2 x 32 GB, DDR4, 2666 MHz for Intel® Celeron, Pentium, Core™ i3/i5 processors, 2933 MHz for Intel® Core™ i7 processor **NOTE:** Memory speed varies by different type of DPC (DIMM per Channel) installation.

External ports

The following table lists the external ports of your OptiPlex 3090 Micro .

Table 6. External ports

Description	Values
Network port	One RJ-45 Ethernet port 10/100/1000 Mbps
USB ports	• One USB 3.2 Gen 1 Type-A port (front) • Three USB 3.2 Gen 1 Type-A ports (rear) • One USB 3.2 Gen1 Type-A port with Smart Power on (rear)
Audio port	• One Universal audio jack port (front) • One Re-tasking Line-out/Line-in audio port (front)
Video port	• Two DisplayPort 1.4 ports (rear) • One optional 3rd Video Port (VGA/DP 1.4/HDMI 2.0b) (rear)
Media-card reader	Not supported
Power-adapter port	65 W AC adapter, 4.5 mm barrel for 35 W CPU
Security-cable slot	• One kensington security-cable slot • One Padlock loop

Internal slots

The following table lists the internal slots of your OptiPlex 3090 Micro .

Table 7. Internal slots

Description	Values
SATA	One SATA slots for 2.5-inch Hard disk-drive and Optical disk-drive
M.2	• One M.2 2230 slot for WiFi and Bluetooth card • One M.2 2230/2280 slot for SSD **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.

Ethernet

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

Table 8. Ethernet specifications

Description	Values
Model number	• Intel Ethernet Connection I219-LM • Realtek RTL8111KD **NOTE:** Your system is configured with one of two ethernet models. For more information see Ethernet drivers on corporate OS image
Transfer rate	10/100/1000 Mbps

Wireless module

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

Table 9. 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	• Wi-Fi 802.11a/b/g • Wi-Fi 4 (WiFi 802.11n) • Wi-Fi 5 (WiFi 802.11ac)	• WiFi 802.11a/b/g • Wi-Fi 4 (WiFi 802.11n) • Wi-Fi 5 (WiFi 802.11ac) • Wi-Fi 6 (WiFi 802.11ax)	• WiFi 802.11a/b/g • Wi-Fi 4 (WiFi 802.11n) • Wi-Fi 5 (WiFi 802.11ac)
Encryption	• 64-bit/128-bit WEP • AES-CCMP • TKIP	• 64-bit/128-bit WEP • AES-CCMP • TKIP	• 64-bit/128-bit WEP • AES-CCMP • TKIP

Table 9. Wireless module specifications (continued)

Description	Option one	Option two	Option three
Bluetooth	Bluetooth 5.0	Bluetooth 5.2	Bluetooth 5.1

Audio

The following table lists the audio specifications of your OptiPlex 3090 Micro .

Table 10. Audio specifications

Description		Values
Audio controller		Waves MaxxAudio API
Stereo conversion		Not supported
Internal audio interface		Intel HDA (high-definition audio)
External audio interface		• One Universal audio port (front) • One Re-tasking Line-out/Line-in audio port (front)
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 11. Storage Matrix

Storage		Single 2.5-inch hard drive	Single M.2 socket	Single Bootable Device
2.5-inch hard drive		Yes	No	2.5-inch hard drive
M.2 PCIe solid-state drive		No	Yes	1st M.2 solid-state drive
M.2 PCIe solid-state drive	2.5-inch hard drive	Yes	Yes	1st M.2 solid-state drive

Table 12. Storage specifications

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

Power ratings

The following table lists the power rating specifications of OptiPlex 3090 Micro .

Table 13. Power ratings

Description		Values
Type		65 W AC adaptor
Input voltage		100 VAC to 240 VAC
Input frequency		50 Hz to 60 Hz
Input current (maximum)		1.50 A
Output current (continuous)		3.34 A
Rated output voltage		19.50 VDC
Temperature range		
	Operating	0°C to 40°C (32°F to 104°F)
	Storage	-40°C to 70°C (-40°F to 158°F)

GPU—Integrated

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

Table 14. GPU—Integrated

Controller	Memory size	Processor
Intel UHD Graphics 630	Shared system memory	10th Generation Intel Core i3/i5/i7
Intel UHD Graphics 610	Shared system memory	Intel Celeron/Pentium

Multiple display support matrix

Table 15. Integrated graphics card

Graphics Card	Intel UHD 610	Intel UHD 630
Video ports on Integrated Graphics Card	2 x DisplayPort 1.4 port	2 x DisplayPort 1.4 port
Video port on Option Video module	• 1 x DisplayPort 1.4 port (optional) • 1 x VGA (optional) • 1 x HDMI 2.0 (optional)	• 1 x DisplayPort 1.4 port (optional) • 1 x VGA (optional) • 1 x HDMI 2.0 (optional)
Number of displays	3	3

Hardware security

The following table lists the hardware security of your OptiPlex 3090 Micro .

Table 16. Hardware security

Hardware security
1 Kensington security-cable slot
1 Padlock loop
Chassis intrusion switch
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
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 Micro .

Table 17. Environmental specifications

Feature	OptiPlex 3090 Tower
Recyclable packaging	Yes
BFR/PVC—free chassis	No
MultiPack packaging	Yes (US only) (optional)

Table 17. Environmental specifications (continued)

Feature	OptiPlex 3090 Tower
Energy-Efficient Power Supply	Standard
ENV0424 compliant	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.

Energy Star, EPEAT and Trusted Platform Module (TPM)

Table 18. 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:

[1]TPM 2.0 is FIPS 140-2 certified.

[2]TPM is not available in all countries.

Operating and storage environment

This table lists the operating and storage specifications of your OptiPlex 3090 Micro .

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

Table 19. 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 when the hard drive is in use.

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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.

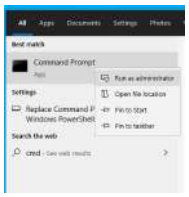
The two drivers can be preinstalled into the OS image via INF installation process. Please see this article on preinstalling-driver-packages for details.

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

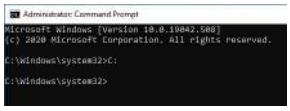
1. Download the Intel and Realtek LAN drivers from Dell support website: www.dell.com/support/windows
2. Extract Intel and Realtek LAN drivers.



3. Open command line and run by administrator.

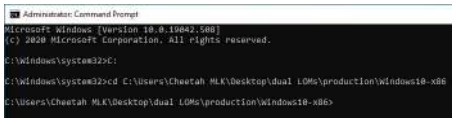


4. Type the extract folder drive volume. In this instance, it is C-drive [C:].

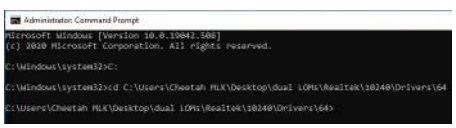


5. Type cd command to go to the driver inf folder:

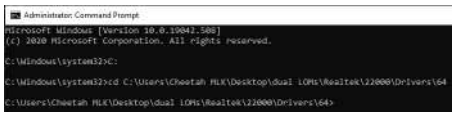
   [For Intel LOM – Win10/Win11] [cd extract folder\production\Windows10-x64\]



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



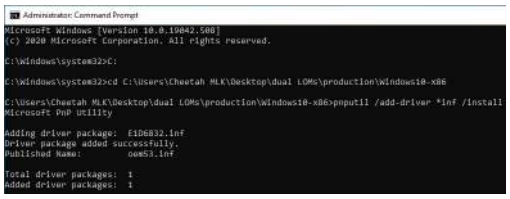
   [For Realtek LOM – Win11] [cd extract folder\22000\Drivers\64]



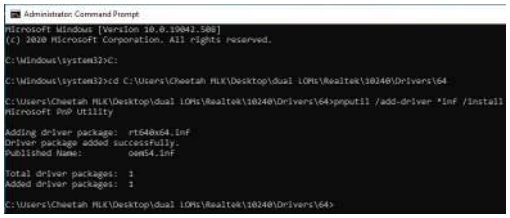
6. Type Microsoft PnpUtil command to add and install the drivers.

   [pnputil /add-driver *inf /install]

   [For Intel LOM]



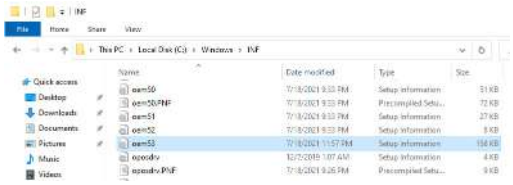
   [For Realtek LOM]



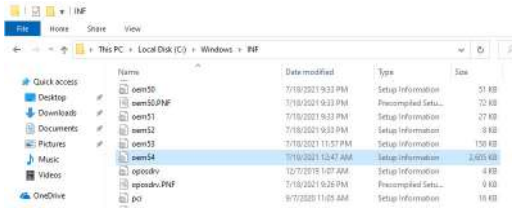
7. Check that the drivers have been successfully added to the system in C:\Windows\INF\. The OEM# (Published Name) could be referred to step #6.

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

   [For Intel LOM]



   [For Realtek LOM]



5

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 20. 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 `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 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	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.