

Precision 3650 Tower

Setup and Specifications

Notes, cautions, and warnings

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

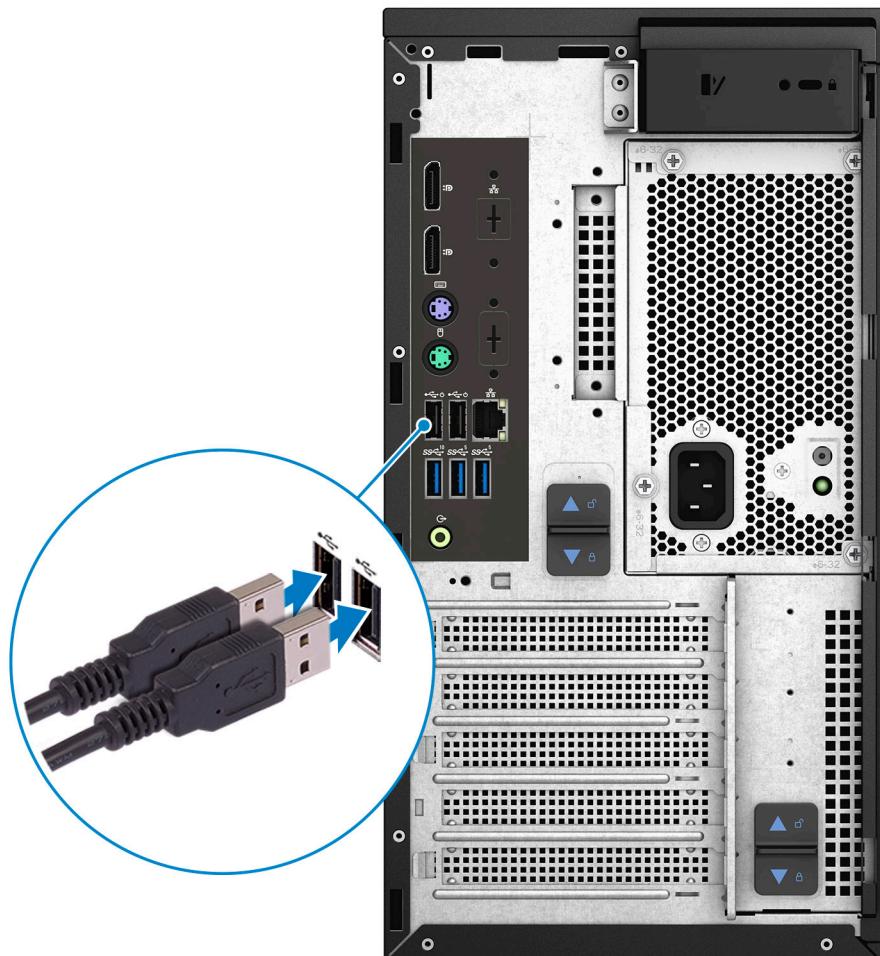
 **CAUTION:** A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

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

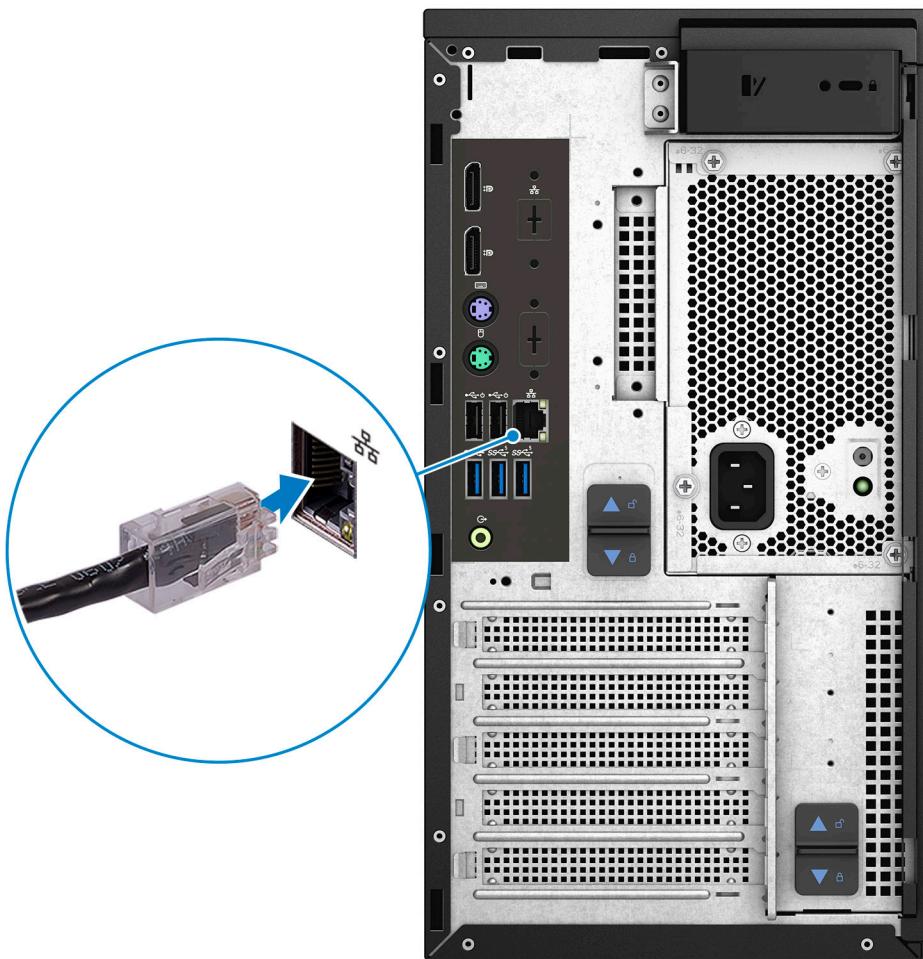
Set up your computer

Steps

1. Connect the keyboard and mouse.



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

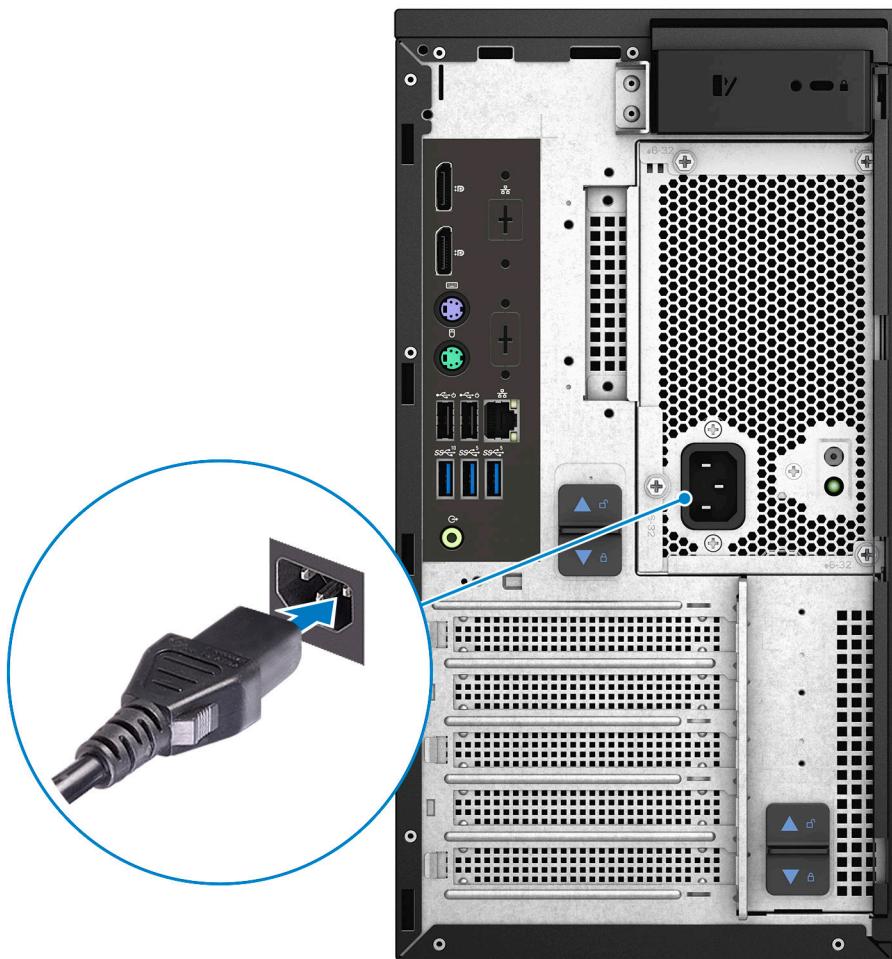


3. Connect the display.



(i) NOTE: If you ordered your computer with a discrete graphics card, connect the display cable to the discrete graphics card connectors.

4. Connect the power cable.



5. Press the power button.



6. Finish operating system setup.

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.
- **(i) 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.
 - a. Connect to a network.
 - b. Sign-in to your Microsoft account or create a new account.

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

Table 1. Locate Dell apps

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

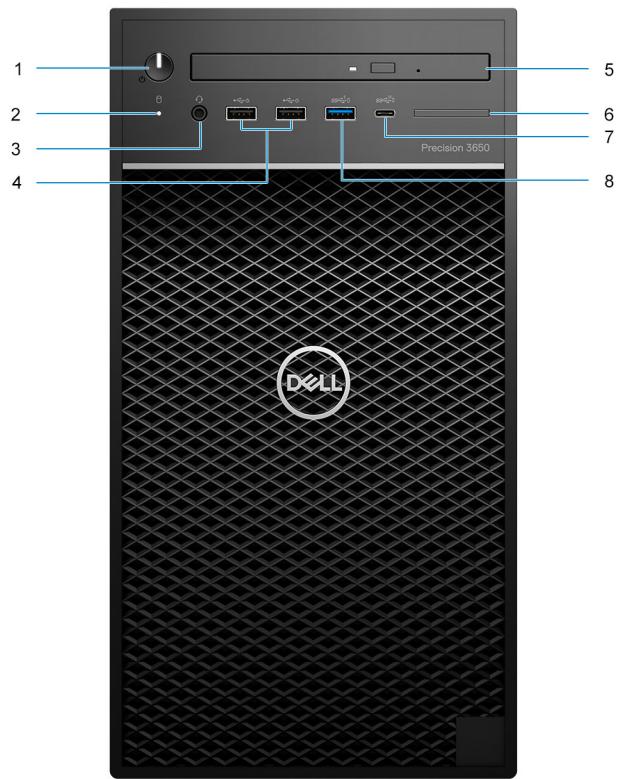
Table 1. Locate Dell apps (continued)

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

Views of Precision 3650 Tower

Front

Standard front I/O

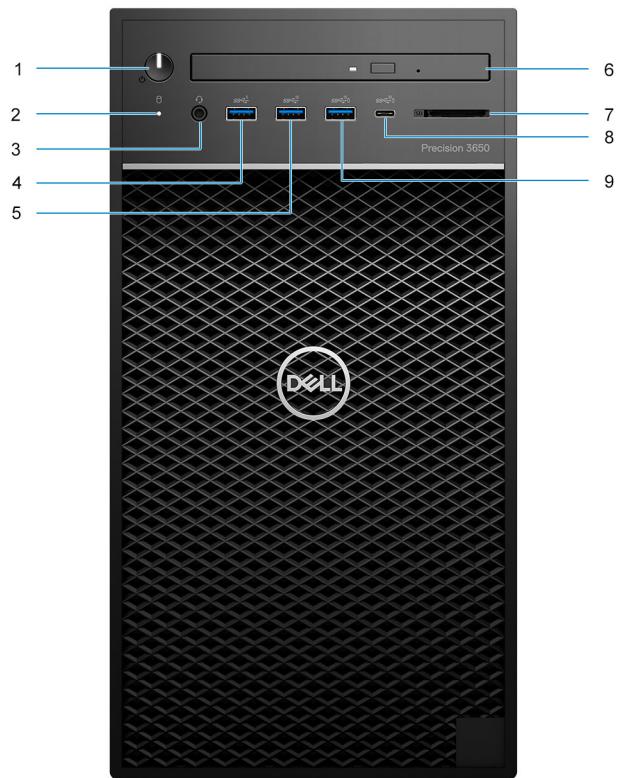


1. Power button with diagnostic LED
2. Hard-disk drive activity light
3. Universal audio jack port
4. Two USB 2.0 Type-A ports
5. Optical Disk Drive (optional)
6. Bezel for SD card reader

(i) NOTE: SD card reader is not included with Standard Front I/O

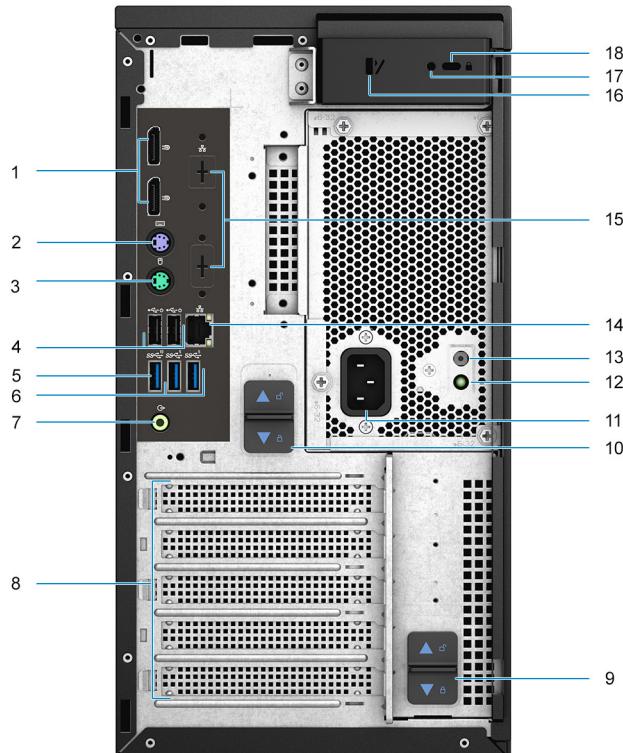
7. USB 3.2 Gen 2x1 Type-C port (10 Gbps)
8. USB 3.2 Gen 1 Type-A port with PowerShare (5 Gbps)

Advanced front I/O



1. Power button with diagnostic LED
2. Hard-disk drive activity light
3. Universal audio jack port
4. One USB 3.2 Gen 1 Type-A port (5 Gbps)
5. USB 3.2 Gen 2 Type-A port (10 Gbps)
6. Optical Disk Drive (optional)
7. SD 4.0 card reader included with Advanced Front I/O
8. USB 3.2 Gen 2x2 Type-C port (20 Gbps)
9. USB 3.2 Gen 2 port with PowerShare (10 Gbps)

Back



1. Two DisplayPort 1.4 ports
2. PS/2 port for keyboard
3. PS/2 port for mouse
4. Two USB 2.0 Type-A ports with Smart Power On
5. One USB 3.2 Gen 2 Type-A port (10 Gbps)
6. Two USB 3.2 Gen 1 Type-A ports (5 Gbps)
7. Line-out re-tasking Line-in audio port
8. Three expansion card slots
9. PSU hinge release latch
10. PSU release latch
11. Power connector port
12. Power supply diagnostic light
13. Power supply diagnostic button
14. RJ-45 port 10/100/1000 Mbps
15. Optional 2.5GbE RJ-45 / VGA Port/DisplayPort 1.4a Port/HDMI 2.0b Port/ USB 3.2 Gen2 Type-C Port with Alt-mode slots
16. Side cover release latch
17. Security screw
18. Kensington cable lock

Specifications of Precision 3650 Tower

Dimensions and weight

The following table lists the height, width, depth, and weight of your Precision 3650 Tower.

Table 2. Dimensions and weight

Description	Values
Height:	
Front	355.00 mm (13.18 in.)
Rear	355.00 mm (13.18 in.)
Width	
Depth	176.60 mm (6.95 in.)
Weight (minimum)	345.00 mm (13.60 in.)
Weight (maximum)	8.50 kg (18.74 lb)
Weight (maximum) NOTE: The weight of your computer depends on the configuration ordered and the manufacturing variability.	

Processors

The following table lists the details of the processors supported by your Precision 3650 Tower

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 new 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.

When upgrading from a 65 W processor to a 80/125 W processor, a VR Heatsink specific to the wattage of the processor is required to be installed.

- VR Heatsink part numbers:
 - 80 W VR heatsink (**DPN : 47P6W**)
 - 125 W VR heatsink (**DPN : 7NPYV**)

NOTE: VR Heatsink is not included with the 65 W processor kit and needs to be ordered separately.

Table 3. Processors

Processors	Wattage	Core count	Thread count	Speed	Cache	Integrated graphics	GSP	DG/CG Ready
10 th Generation Intel Core i3-10100	65 W	4	8	3.6 GHz to 4.3 GHz	6 MB	Intel UHD Graphics 630	No	Yes
10 th Generation Intel Core i3-10105	65 W	4	8	3.70 GHz to 4.40 GHz	6 MB	Intel UHD Graphics 630	No	Yes
10 th Generation Intel Core i5-10500	65 W	6	12	3.1 GHz to 4.5 GHz	12 MB	Intel UHD Graphics 630	No	Yes
10 th Generation Intel Core i5-10600	65 W	6	12	3.3 GHz to 4.8 GHz	12 MB	Intel UHD Graphics 630	No	Yes
10 th Generation Intel Core i5-10600K	125 W	6	12	4.1 GHz to 4.8 GHz	12 MB	Intel UHD Graphics 630	Yes	Yes
10 th Generation Intel Core i7-10700	65 W	8	16	2.9 GHz to 4.8 GHz	16 MB	Intel UHD Graphics 630	Yes	Yes
10 th Generation Intel Core i7-10700K	125 W	8	16	3.8 GHz to 5.1 GHz	16 MB	Intel UHD Graphics 630	Yes	Yes
10 th Generation Intel Core i9-10900	65 W	10	20	2.8 GHz to 5.2 GHz	20 MB	Intel UHD Graphics 630	Yes	Yes
10 th Generation Intel Core i9-10900K	125 W	10	20	3.7 GHz to 5.3 GHz	20 MB	Intel UHD Graphics 630	Yes	Yes
10 th Generation Intel Xeon W-1250	80 W	6	12	3.3 GHz to 4.7 GHz	12 MB	Intel UHD Graphics P630	Yes	Yes
10 th Generation Intel Xeon W-1250P	125 W	6	12	4.1 GHz to 4.8 GHz	12 MB	Intel UHD Graphics P630	Yes	Yes
10 th Generation Intel Xeon W-1270	80 W	8	16	3.4 GHz to 5.0 GHz	16 MB	Intel UHD Graphics P630	Yes	Yes
10 th Generation Intel Xeon W-1270P	125 W	8	16	3.8 GHz to 5.1 GHz	16 MB	Intel UHD Graphics P630	Yes	Yes

Table 3. Processors (continued)

Processors	Wattage	Core count	Thread count	Speed	Cache	Integrated graphics	GSP	DG/CG Ready
10 th Generation Intel Xeon W-1290	80 W	10	20	3.2 GHz to 5.2 GHz	20 MB	Intel UHD Graphics P630	Yes	Yes
10 th Generation Intel Xeon W-1290P	125 W	10	20	3.7 GHz to 5.3 GHz	20 MB	Intel UHD Graphics P630	Yes	Yes
11 th Generation Intel Core i5-11500	65 W	6	12	2.70 GHz to 4.60 GHz	12 MB	Intel UHD Graphics 750	No	Yes
11 th Generation Intel Core i5-11600	65 W	6	12	2.80 GHz to 4.80 GHz	12 MB	Intel UHD Graphics 750	No	Yes
11 th Generation Intel Core i5-11600K	125 W	6	12	3.90 GHz to 4.90 GHz	12 MB	Intel UHD Graphics 750	Yes	Yes
11 th Generation Intel Core i7-11700	65 W	8	16	2.50 GHz to 4.90 GHz	16 MB	Intel UHD Graphics 750	Yes	Yes
11 th Generation Intel Core i9-11700K	125 W	8	16	3.60 GHz to 5.00 GHz	16 MB	Intel UHD Graphics 750	Yes	Yes
11 th Generation Intel Core i9-11900	65 W	8	16	2.50 GHz to 5.20 GHz	16 MB	Intel UHD Graphics 750	Yes	Yes
11 th Generation Intel Core i9-11900K	125 W	8	16	3.50 GHz to 5.30 GHz	16 MB	Intel UHD Graphics 750	Yes	Yes
11 th Generation Intel Xeon W-1350	80 W	6	12	3.30 GHz to 5.00 GHz	12 MB	Intel UHD Graphics P750	Yes	Yes
11 th Generation Intel Xeon W-1350P	125 W	6	12	4.00 GHz to 5.10 GHz	16 MB	Intel UHD Graphics P750	Yes	Yes
11 th Generation Intel Xeon W-1370	80 W	8	16	2.9 GHz to 5.1 GHz	16 MB	Intel UHD Graphics P750	Yes	Yes

Table 3. Processors (continued)

Processors	Wattage	Core count	Thread count	Speed	Cache	Integrated graphics	GSP	DG/CG Ready
11 th Generation Intel Xenon W-1370P	125 W	8	16	3.6 GHz to 5.2 GHz	16 MB	Intel UHD Graphics P750	Yes	Yes
11 th Generation Intel Xenon W-1390	80 W	8	16	2.8 GHz to 5.2 GHz	16 MB	Intel UHD Graphics P750	Yes	Yes
11 th Generation Intel Xenon W-1390P	125 W	8	16	3.5 GHz to 5.3 GHz	16 MB	Intel UHD Graphics P750	Yes	Yes

Chipset

The following table lists the details of the chipset supported by your Precision 3650 Tower.

Table 4. Chipset

Description	Values
Chipset	Intel W580
Processor	<ul style="list-style-type: none"> • 10th Generation Intel Core i3/i5/i7/i9/Xeon-W • 11th Generation Intel Core i5/i7/i9/Xeon-W
DRAM bus width	64 bit (for single channel)
Flash EPROM	256 MB
PCIe bus	PCIe Gen3

Operating system

Your Precision 3650 Tower supports the following operating systems:

- Windows 11 Home, 64-bit
- Windows 11 Pro, 64-bit
- Windows 11 Pro National Academic, 64-bit
- Windows 11 Pro for Workstations, 64-bit
- Windows 10 Home, 64-bit
- Windows 10 Pro, 64-bit
- Windows 10 IoT Enterprise 2019 LTSC (OEM only)
- Windows 10 CMIT Government Edition, 64-bit (China only)
- Red Hat Enterprise Linux 8.4
- Ubuntu 20.04 LTS, 64-bit
- Kylin v10.1

Memory

The following table lists the memory specifications of your Precision 3650 Tower.

Table 5. Memory specifications

Description	Values
Memory slots	Four UDIMM
Memory type	DDR4
Maximum Memory speed	2666 MHz for 10th Generation Intel Core i3/i5/Xeon W-1250/W-1250P processors, 2933 MHz for 10th Generation Intel Core i7/i9/Xeon W-1270/W-1270P/W1290/W1290P processors ,3200 MHz for 11th Generation Intel Core i5/i7/i9/Xeon W-1350/W-1350P/W-1370/W-1370P/W1390/W1390P processors
Maximum memory configuration	128 GB
Minimum memory configuration	8 GB
Memory size per slot	8 GB, 16 GB, 32 GB
Memory configurations supported	ECC Memory <ul style="list-style-type: none"> ● 8 GB, (1 x 8 GB), DDR4, 2666 MHz for 10th Generation Intel Core i3/i5/Xeon W-1250/W-1250P processors, 2933 MHz for 10th Generation Intel Core i7/i9/Xeon W-1270/W-1270P/W1290/W1290P processors ,3200 MHz for 11th Generation Intel Core i5/i7/i9/Xeon W-1350/W-1350P/W-1370/W-1370P/W1390/W1390P processors ● 16 GB, (2 x 8 GB), DDR4, 2666 MHz for 10th Generation Intel Core i3/i5/Xeon W-1250/W-1250P processors, 2933 MHz for 10th Generation Intel Core i7/i9/Xeon W-1270/W-1270P/W1290/W1290P processors ,3200 MHz for 11th Generation Intel Core i5/i7/i9/Xeon W-1350/W-1350P/W-1370/W-1370P/W1390/W1390P processors ● 16 GB, (1 x 16 GB), DDR4, 2666 MHz for 10th Generation Intel Core i3/i5/Xeon W-1250/W-1250P processors, 2933 MHz for 10th Generation Intel Core i7/i9/Xeon W-1270/W-1270P/W1290/W1290P processors ,3200 MHz for 11th Generation Intel Core i5/i7/i9/Xeon W-1350/W-1350P/W-1370/W-1370P/W1390/W1390P processors ● 32 GB, (4 x 8 GB), DDR4, 2666 MHz for 10th Generation Intel Core i3/i5/Xeon W-1250/W-1250P processors, 2933 MHz for 10th Generation Intel Core i7/i9/Xeon W-1270/W-1270P/W1290/W1290P processors ,3200 MHz for 11th Generation Intel Core i5/i7/i9/Xeon W-1350/W-1350P/W-1370/W-1370P/W1390/W1390P processors ● 32 GB, (2 x 16 GB), DDR4, 2666 MHz for 10th Generation Intel Core i3/i5/Xeon W-1250/W-1250P processors, 2933 MHz for 10th Generation Intel Core i7/i9/Xeon W-1270/W-1270P/W1290/W1290P processors ,3200 MHz for 11th Generation Intel Core i5/i7/i9/Xeon W-1350/W-1350P/W-1370/W-1370P/W1390/W1390P processors ● 64 GB, (4 x 16 GB), DDR4, 2666 MHz for 10th Generation Intel Core i3/i5/Xeon W-1250/W-1250P processors, 2933 MHz for 10th Generation Intel Core i7/i9/Xeon W-1270/W-1270P/W1290/W1290P processors ,3200 MHz for 11th Generation Intel Core i5/i7/i9/Xeon W-1350/W-1350P/W-1370/W-1370P/W1390/W1390P processors

Table 5. Memory specifications (continued)

Description	Values
	<ul style="list-style-type: none">64 GB, (2 x 32 GB), DDR4, 2666 MHz for 10th Generation Intel Core i3/i5/Xeon W-1250/W-1250P processors, 2933 MHz for 10th Generation Intel Core i7/i9/Xeon W-1270/W-1270P/W1290/W1290P processors ,3200 MHz for 11th Generation Intel Core i5/i7/i9/Xeon W-1350/W-1350P/W-1370/W-1370P/W1390/W1390P processors128 GB, (4 x 32 GB), DDR4, 2666 MHz for 10th Generation Intel Core i3/i5/Xeon W-1250/W-1250P processors, 2933 MHz for 10th Generation Intel Core i7/i9/Xeon W-1270/W-1270P/W1290/W1290P processors ,2933 MHz for 11th Generation Intel Core i5/i7/i9/Xeon W-1350/W-1350P/W-1370/W-1370P/W1390/W1390P processors <p>Non-ECC memory</p> <ul style="list-style-type: none">8 GB, (2 x 4 GB), DDR4, 2666 MHz for 10th Generation Intel Core i3/i5/Xeon W-1250/W-1250P processors, 2933 MHz for 10th Generation Intel Core i7/i9/Xeon W-1270/W-1270P/W1290/W1290P processors ,3200 MHz for 11th Generation Intel Core i5/i7/i9/Xeon W-1350/W-1350P/W-1370/W-1370P/W1390/W1390P processors8 GB, (1 x 8 GB), DDR4, 2666 MHz for 10th Generation Intel Core i3/i5/Xeon W-1250/W-1250P processors, 2933 MHz for 10th Generation Intel Core i7/i9/Xeon W-1270/W-1270P/W1290/W1290P processors ,3200 MHz for 11th Generation Intel Core i5/i7/i9/Xeon W-1350/W-1350P/W-1370/W-1370P/W1390/W1390P processors16 GB, (2 x 8 GB), DDR4, 2666 MHz for 10th Generation Intel Core i3/i5/Xeon W-1250/W-1250P processors, 2933 MHz for 10th Generation Intel Core i7/i9/Xeon W-1270/W-1270P/W1290/W1290P processors ,3200 MHz for 11th Generation Intel Core i5/i7/i9/Xeon W-1350/W-1350P/W-1370/W-1370P/W1390/W1390P processors32 GB, (4 x 8 GB), DDR4, 2666 MHz for 10th Generation Intel Core i3/i5/Xeon W-1250/W-1250P processors, 2933 MHz for 10th Generation Intel Core i7/i9/Xeon W-1270/W-1270P/W1290/W1290P processors ,3200 MHz for 11th Generation Intel Core i5/i7/i9/Xeon W-1350/W-1350P/W-1370/W-1370P/W1390/W1390P processors32 GB, (2 x 16 GB), DDR4, 2666 MHz for 10th Generation Intel Core i3/i5/Xeon W-1250/W-1250P processors, 2933 MHz for 10th Generation Intel Core i7/i9/Xeon W-1270/W-1270P/W1290/W1290P processors ,3200 MHz for 11th Generation Intel Core i5/i7/i9/Xeon W-1350/W-1350P/W-1370/W-1370P/W1390/W1390P processors64 GB, (2 x 32 GB), DDR4, 2666 MHz for 10th Generation Intel Core i3/i5/Xeon W-1250/W-1250P processors, 2933 MHz for 10th Generation Intel Core i7/i9/Xeon W-1270/W-1270P/W1290/W1290P processors ,3200 MHz for 11th Generation Intel Core i5/i7/i9/Xeon W-1350/W-1350P/W-1370/W-1370P/W1390/W1390P processors64 GB, (4 x 16 GB), DDR4, 2666 MHz for 10th Generation Intel Core i3/i5/Xeon W-1250/W-1250P processors, 2933 MHz for 10th Generation Intel Core i7/i9/Xeon W-1270/W-1270P/W1290/W1290P processors ,3200 MHz for 11th Generation Intel Core i5/i7/i9/Xeon W-1350/W-1350P/W-1370/W-1370P/W1390/W1390P processors128 GB, (4 x 32 GB), DDR4, 2666 MHz for 10th Generation Intel Core i3/i5/Xeon W-1250/W-1250P processors, 2933 MHz for 10th Generation

Table 5. Memory specifications (continued)

Description	Values
	Intel Core i7/i9/Xeon W-1270/W-1270P/W1290/W1290P processors ,2933 MHz for 11th Generation Intel Core i5/i7/i9/Xeon W-1350/W-1350P/W-1370/W-1370P/W1390/W1390P processors

Memory configuration matrix

DIMM configuration to avoid memory speed reduction:

	DIMM #	1 DIMM	2 DIMMs	4 DIMMs
Channel-A	DIMM3			v
Channel-A	DIMM1	v	v	v
Channel-B	DIMM4			v
Channel-B	DIMM2		v	v

Following memory configurations are recommended from Dell to avoid memory speed reduction on 11th generation Rocket Lake processors.:

Config	Total	ECC / non-ECC	DPC	Frequency	CH-A		CH-B	
					DIMM3	DIMM1	DIMM4	DIMM2
2X4GB	8GB	Non-ECC	1	3200		4GB		4GB
1X8GB	8GB	Non-ECC	1	3200		8GB		
2X8GB	16GB	Non-ECC	1	3200		8GB		8GB
4X4GB	16GB	Non-ECC	2	3200	4GB	4GB	4GB	4GB
4X8GB	32GB	Non-ECC	2	3200	8GB	8GB	8GB	8GB
2X16GB	32GB	Non-ECC	1	3200		16GB		16GB
4X16GB	64Gb	Non-ECC	2	3200	16GB	16GB	16GB	16GB
2X32GB	64Gb	Non-ECC	1	3200		32GB		32GB
4X32GB	128GB	Non-ECC	2	2933	32GB	32GB	32GB	32GB
1X8GB	8GB	ECC	1	3200		8GB		
2X8GB	16GB	ECC	1	3200		8GB		8GB
2X16GB	32GB	ECC	1	3200		16GB		16GB
4X8GB	32GB	ECC	2	3200	8GB	8GB	8GB	8GB
4X16GB	64GB	ECC	2	3200	16GB	16GB	16GB	16GB
2X32GB	64GB	ECC	1	3200		32GB		32GB
4X32GB	128GB	ECC	2	2933	32GB	32GB	32GB	32GB

- ***i* NOTE:** Different processor and dual rank will cause memory speed down to 2933MHz or 2666MHz.
- ***i* NOTE:** At least 2 memory modules are required for non-ECC 4GB memory in system.
- ***i* NOTE:** Different Memory Vendors mixing within a channel is not allowed and it would cause memory speed down to 2666Mhz or below.
- ***i* NOTE:** 128 GB configuration can only support up to 2933MHz on 11th Generation Intel Core i5/i7/i9/Xeon W-1350/W-1350P/W-1370/W-1370P/W1390/W1390P processors.

External ports

The following table lists the external ports of your Precision 3650 Tower.

Table 6. External ports

Description	Values
Network port	<ul style="list-style-type: none">One RJ-45 port 10/100/1000 Mbps (rear)One optional 2nd RJ-45 2.5 Gbps port (rear)
USB ports	Standard Front I/O: <ul style="list-style-type: none">Two USB 2.0 portsOne USB 3.2 Gen 1 port with PowerShare (5 Gbps)One USB 3.2 Gen 2x1 Type-C port (10 Gbps) Advanced Front I/O: <ul style="list-style-type: none">One USB 3.2 Gen 1 port (5 Gbps)One USB 3.2 Gen 2 port with PowerShare (10 Gbps)One USB 3.2 Gen 2 port (10 Gbps)One USB 3.2 Gen 2x2 Type-C port (20 Gbps) Rear I/O: <ul style="list-style-type: none">Two USB 2.0 ports with SmartPower onTwo USB 3.2 Gen 1 ports (5 Gbps)One USB 3.2 Gen 2 port (10 Gbps)One USB 3.2 Gen 2 Type-C Alt-Mode (optional)
Audio port	<ul style="list-style-type: none">One Universal Audio Jack (front)One Line-out audio port with re-tasking to Line-in (rear)
Video port	<ul style="list-style-type: none">Two DisplayPort 1.4 ports (rear)One VGA Port/DisplayPort 1.4a Port/HDMI 2.0b Port/USB 3.2 Gen2 Type-C Port with Alt-mode (optional)
Media-card reader	One SD-card slot
Power-adapter port	NA
Security-cable slot	NA

Internal slots

The following table lists the internal slots of your Precision 3650 Tower.

Table 7. Internal slots

Description	Values
Expansion	For 10th Generation processors: <ul style="list-style-type: none">One full-height Gen 3 PCIe x16 slot. <p>NOTE: CPU PCIe lanes are only validated for discrete graphics (x16), for other AIC types: Ethernet, USB, WLAN, Serial, Parallel and TBT cards are not supported on PEG Slot.</p> <ul style="list-style-type: none">One full height PCI-32 (legacy) slot.One full-height Gen 3 PCIe x4 slot. For 11th Generation processors: <ul style="list-style-type: none">One full-height Gen 4 PCIe x16 slot.

Table 7. Internal slots (continued)

Description	Values
	<p>NOTE: CPU PCIe lanes are only validated for discrete graphics (x16), for other AIC types: Ethernet, USB, WLAN, Serial, Parallel and TBT cards are not supported on PEG Slot</p> <ul style="list-style-type: none"> • One full height PCI-32 (legacy) slot. • One full-height Gen 3 PCIe x4 slot.
SATA	Four SATA slots for 2.5-inch Hard disk drive/Solid-state drive/Optical Disk Drive
M.2	<ul style="list-style-type: none"> • Two M.2 2280 slot for solid-state drive with 10th Generation Intel processors • Three M.2 2280 slot for solid-state drive with 11th Generation Intel processors <p>NOTE: To learn more about the features of different types of M.2 cards, see the knowledge base article 000144170 at www.dell.com/support.</p>

Communications

Ethernet

Table 8. Ethernet specifications

Description	Values
Model number	Ethernet controller integrated on system board NOTE: Optional 2.5GbE RJ-45 available at the time of purchase
Transfer rate	10/100/1000 Mbps NOTE: 2.5 Gbps speed available with the optional 2nd RJ-45 port.

Wireless module

Table 9. Wireless module specifications

Description		Values
Model number	Qualcomm QCA6174a	Intel Wi-Fi 6 AX210
Transfer rate	Up to 867 Mbps	Up to 2402 Mbps
Frequency bands supported	2.4 GHz/5 GHz	2.4 GHz/5 GHz/6 GHz
Wireless standards	802.11ac	802.11ax
Encryption	<ul style="list-style-type: none"> • 64-bit and 128-bit WEP • 128-bit AES-CCMP • TKIP 	<ul style="list-style-type: none"> • 128-bit AES-CCMP • 256-bit AES-GCMP

Table 9. Wireless module specifications (continued)

Description	Values	
Bluetooth	5.0	5.2

Audio and Speaker

The following table lists the audio specifications of your Precision 3650 Tower.

Table 10. Audio specifications

Description	Values
Type	4 Channel High Definition Audio
Controller	Realtek ALC3246
Stereo conversion	24-bit DAC (Digital-to-Analog) and ADC (Analog-to-Digital)
Internal interface	Intel HDA (high-definition audio)
External interface	<ul style="list-style-type: none"> One Universal Audio Jack (front) One Line-out audio port with re-tasking to Line-in(rear)
Speakers	One (optional)
Internal speaker amplifier	Integrated in ALC3246 (Class-D 2 W)
External volume controls	Keyboard shortcut controls.
Speaker output average	2 W
Speaker output peak	2.5 W
Subwoofer output	Not supported
Microphone	Not supported

Storage

This section lists the storage options on your Precision 3650 Tower.

Your computer supports one of the following storage configurations:

- M.2 solid-state drive Boot + Optional M.2 solid-state drive – This configuration enables boot on M.2 NVMe solid-state drive with up to three additional NVMe solid-state drives depending on the processor installed. No SATA HDDs are configured in this option.
- 2.5-inch SATA hard-disk drive Boot + Optional 2.5-inch SATA hard-disk drive – This configuration enables boot on 2.5-inch SATA hard-disk drive with up to three additional 2.5-inch SATA hard-disk drives.
- 3.5-inch hard-disk drive Boot + Optional 3.5-inch hard-disk drive – This configuration enables boot on 3.5-inch hard-disk drive with up to two additional 3.5-inch hard-disk drives.
- M.2 solid-state drive Boot + Optional M.2 solid-state drive + 2.5-inch SATA hard-disk drive – This configuration enables boot on M.2 NVMe solid-state drive with up to three additional NVMe solid-state drives depending on the processor installed and up to four 2.5-inch SATA hard-disk drives.
- M.2 SSD Boot + Optional M.2 SSD + 3.5-inch hard-disk drive – This configuration enabled boot on M.2 NVMe solid-state drive with up to three additional NVMe solid-state drives depending on the processor installed and up to three 3.5-inch hard-disk drives.

(i) NOTE: M.2 solid-state drive in slot 1 cannot build RAID disk with M.2 slot 2 and slot 3 M.2 solid-state drive.

(i) NOTE: M.2 solid-state drive cannot build RAID disk with any SATA drive.

The primary drive of your computer varies with the storage configuration. For computers:

- with a M.2 solid-state drive, the M.2 solid-state drive is the primary drive
- without a M.2 drive, either the 3.5-inch hard-disk drive or one of the 2.5-inch hard-disk drive is the primary drive

Table 11. Storage specifications

Storage type	Interface type	Capacity
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
2.5-inch, 7200 RPM, FIPS Self Encrypting Opal 2.0, hard-disk drive	SATA 3.0	Up to 500 GB
3.5-inch, 5400 RPM, hard-disk drive	SATA 3.0	4 TB
3.5-inch, 7200 RPM, hard-disk drive	SATA 3.0	Up to 8 TB
M.2 2280 solid-state drive	<ul style="list-style-type: none"> • PCIe Gen 3 x 4 NVMe, Class 50 • PCIe Gen 3 x 4 NVMe, Class 40 • PCIe Gen 4 x 4 NVMe, Class 40 	<ul style="list-style-type: none"> • Up to 1 TB • Up to 2 TB
M.2 2280 Opal Self-Encrypting solid-state drive	PCIe Gen 3 x 4 NVMe, Class 40	Up to 1 TB

Preloaded components included with storage drives

(i) NOTE: Users/Customers would need to install thermal pad for M.2 NVMe drives, SATA cable and tray to install 2.5" or 3.5" SATA hard drives.

Following customer kits are sold separately for 3rd party storage drive installation:

- Thermal pad for M.2 NVMe Solid state drive
- 2.5-inch SATA Tray and cable for 2.5-inch Hard drive
- 3.5-inch SATA Tray and cable for 3.5-inch Hard drive

Power ratings

Table 12. Power adapter specifications

Description	Values			
Type	300 W typical 90% Efficient PSU, 80 Plus Gold	460 W typical 90% Efficient PSU, 80 Plus Gold	550 W typical 90% Efficient PSU, 80 Plus Gold	1000 W typical 90% Efficient PSU, 80 Plus Gold
Input voltage	90 VAC to 264 VAC	90 VAC to 264 VAC	90 VAC to 264 VAC	90 VAC to 264 VAC
Input frequency	47 Hz to 63 Hz	47 Hz to 63 Hz	47 Hz to 63 Hz	47 Hz to 63 Hz
Input current (maximum)	6 A	8 A	8 A	14 A
Output current (continuous)	<ul style="list-style-type: none"> • 5.1 V /13 A • 12 VA1/16.5 A • 12 VA2/16.5 A • 12 VB/16 A 	<ul style="list-style-type: none"> • 5.1 V /20 A • 12 VA1/18 A • 12 VA2/18 A • 12 VB/16 A 	<ul style="list-style-type: none"> • 5.1 V /20 A • 12 VA1/18 A • 12 VA2/18 A • 12 VB/16 A 	<ul style="list-style-type: none"> • 12 VA / 42 A • 12 VB / 52 A • 12 D / 16 A • 3.3 V / 20 A

Table 12. Power adapter specifications (continued)

Description	Values			
	<ul style="list-style-type: none"> • 3.3 V/10 A • 5.1 Vaux/4 A 	<ul style="list-style-type: none"> • 12 VC/18 A • 3.3 V/15 A • 5.1 Vaux/4 A 	<ul style="list-style-type: none"> • 12 VC1/18 A • 12 VC2/18 A • 3.3 V/15 A • 5.1 Vaux/4 A 	<ul style="list-style-type: none"> • 5.1 V / 20 A • -12 V / 0.5 A • 5.1 Vaux / 4 A
Rated output voltage	<ul style="list-style-type: none"> • 5.1 V • 12 VA1 • 12 VA2 • 12 VB • 3.3 V • 5.1 Vaux 	<ul style="list-style-type: none"> • 5.1 V • 12 VA1 • 12 VA2 • 12 VB • 12 VC • 3.3 V • 5.1 Vaux 	<ul style="list-style-type: none"> • 5.1 V • 12 VA1 • 12 VA2 • 12 VB • 12 VC1 • 12 VC2 • 3.3 V • 5.1 V • -12 V • 5.1 Vaux 	<ul style="list-style-type: none"> • 12 VA • 12 VB • 12 D • 3.3 V • 5.1 V • -12 V • 5.1 Vaux
Temperature range:				
Operating	5°C to 50°C (41°F to 122°F)	5°C to 50°C (41°F to 122°F)	5°C to 50°C (41°F to 122°F)	5°C to 50°C (41°F to 122°F)
Storage	-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)	-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 Precision 3650 Tower.

Table 13. GPU—Integrated

Controller	External display support	Memory size	Processor
Intel UHD Graphics 630	<ul style="list-style-type: none"> • Two DisplayPort 1.4 port • One DisplayPort 1.4 port (optional) 	Shared system memory	10 th Generation Intel Core i3
Intel UHD Graphics 750	<ul style="list-style-type: none"> • Two DisplayPort 1.4 port • One DisplayPort 1.4 port (optional) 	Shared system memory	11 th Generation Intel Core i5/i7/i9
Intel UHD Graphics P750	<ul style="list-style-type: none"> • Two DisplayPort 1.4 port • One DisplayPort 1.4 port (optional) 	Shared system memory	11 th Generation Intel Xeon-W

GPU — Discrete

The following table lists the specifications of the discrete graphics processing unit (GPU) supported by your Precision 3650 Tower.

Table 14. GPU — Discrete

Controller	External display support	Memory size	Memory type
NVIDIA RTX A5000	<ul style="list-style-type: none"> • Four DisplayPort 1.4a ports 	24 GB	GDDR6X
NVIDIA RTX A4000	<ul style="list-style-type: none"> • Four DisplayPort 1.4a ports 	16 GB	GDDR6X

Table 14. GPU — Discrete (continued)

Controller	External display support	Memory size	Memory type
NVIDIA Quadro A2000	<ul style="list-style-type: none"> Four mini DisplayPort (mDP) ports 	6 GB	GDDR6X
NVIDIA Quadro RTX 5000	<ul style="list-style-type: none"> Four DisplayPort 1.4 ports One USB-C port 	16 GB	GDDR6
NVIDIA Quadro RTX 4000	<ul style="list-style-type: none"> Three DisplayPort 1.4 ports One USB-C port 	8 GB	GDDR6
NVIDIA Quadro P2200	Four DisplayPort 1.4 ports	5 GB	GDDR5X
NVIDIA Quadro P1000	Four mini DisplayPort (mDP) ports	4 GB	GDDR5
NVIDIA Quadro P620	Four mini DisplayPort (mDP) ports	2 GB	GDDR5
NVIDIA Quadro P400	<ul style="list-style-type: none"> Three mini DisplayPort (mDP) ports 	2 GB	GDDR5
NVIDIA Quadro T1000	<ul style="list-style-type: none"> Four mini DisplayPort (mDP) ports 	4 GB	GDDR6X
NVIDIA Quadro T600	<ul style="list-style-type: none"> Four mini DisplayPort (mDP) ports 	4 GB	GDDR6
NVIDIA Quadro T400	<ul style="list-style-type: none"> Three mini DisplayPort (mDP) ports 	2 GB	GDDR6
AMD Radeon Pro W5700	<ul style="list-style-type: none"> Five mini DisplayPort (mDP) ports One USB-C port 	8 GB	GDDR6
AMD Radeon Pro W5500	Four DisplayPort 1.4 ports	8 GB	GDDR6
AMD Radeon Pro W3200	Four mini DisplayPort (mDP) ports	4 GB	GDDR6

Multiple display support matrix

Table 15. Integrated - Multiple display support matrix

Graphics Card	Intel 630	Intel 750	Intel P750
Memory	UMA	UMA	UMA
Video Ports on Graphics Card	<ul style="list-style-type: none"> Two DisplayPorts 1.4 One optional DisplayPort 1.4 	<ul style="list-style-type: none"> Two DisplayPorts 1.4 One optional DisplayPort 1.4 	<ul style="list-style-type: none"> Two DisplayPorts 1.4 One optional DisplayPort 1.4
Max Displays (direct connect)	<ul style="list-style-type: none"> Two Displays with standard configuration Three Displays with optional DisplayPorts 1.4 	<ul style="list-style-type: none"> Two Displays with standard configuration Three Displays with optional DisplayPorts 1.4 	<ul style="list-style-type: none"> Two Displays with standard configuration Three Displays with optional DisplayPorts 1.4
Max Displays (DP multi-stream)	1	1	1

Table 15. Integrated - Multiple display support matrix (continued)

Graphics Card	Intel 630	Intel 750	Intel P750
Number of displays	3	3	3
Supported Resolution	DP: 4096 x 2304 @60 Hz, 24 bpp	DP: 5120 x 3200 @60 Hz, 24 bpp	DP: 5120 x 3200 @60 Hz, 24 bpp
Total Power	65 W	<ul style="list-style-type: none"> • 65 W • 125 W 	<ul style="list-style-type: none"> • 80 W • 125 W

Environmental

The following table lists the environment specifications supported by your Precision 3650 Tower.

Table 16. Environmental specifications

Feature	Precision 3650 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.

Energy Star, EPEAT and Trusted Platform Module (TPM)

Table 17. Energy Star, EPEAT and TPM

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

(i) 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 Precision 3650 Tower.

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

Table 18. Computer environment

Description	Operating	Storage
Temperature range	10 °C–35°C (50 °F–95°F)	-40°C-65°C (-40°F-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	3048 m (10,000 ft)	10,668 m (35,000 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.

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 19. 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
Access top solutions, diagnostics, drivers and downloads, and learn more about your computer through videos, manuals and documents.	<p>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.</p> <p>For more information on how to find the Service Tag for your computer, see Locate the Service Tag on your computer.</p>
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.