

# Precision 3280 Compact Workstation

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## Key Features of the Dell Precision 3280 Compact Workstation:

### Compact Design:

- **Precision 3280 Compact Workstation** ⇒ The 3280 is small and space-efficient, making it ideal for environments where desk space is limited, but power is still needed.

### Processor Options:

- It typically offers a range of **Intel Core or Xeon processors**, designed for tasks that demand high processing power, such as CAD, content creation, or running simulation software.

### Graphics Performance:

- The workstation can be configured with professional-grade graphics cards, including **NVIDIA Quadro or AMD Radeon Pro GPUs**, which are optimized for tasks like 3D modeling, rendering, and complex visual computations.

### Memory & Storage:

- The Precision 3280 supports ample **RAM** (often up to 64GB or more), which is crucial for multitasking and handling large datasets or complex applications.
- For storage, it typically supports **SSD or HDD** options with large capacities for fast data access and storage flexibility.

### Expandability and Ports:

- Despite its compact size, the Precision 3280 usually provides several **USB ports**, Thunderbolt support, and display outputs, making it adaptable to various peripherals and accessories.

### Durability and Build Quality:

- The workstation is built with durability in mind, meeting **MIL-STD-810G** military standards for shock and vibration resistance, which ensures that it can withstand tough work environments.

### Operating System:

- It typically comes pre-installed with **Windows 10 Pro** or Linux-based operating systems, offering the flexibility to choose based on software requirements.

### Target Users:

- It is intended for professionals in fields such as architecture, engineering, video production, data analysis, and more, **where performance and reliability are crucial.**
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### Processor Options:

- **The Precision 3280** can be configured with high-performance Intel processors, such as the Intel Core i7 or i9, or Intel Xeon processors. Xeon processors are optimized for multi-threaded workloads, making them ideal for rendering, simulation, or large data processing tasks.
- **Intel Core i7 / i9:** Suitable for applications requiring strong single-threaded performance and light multitasking.
- **Intel Xeon:** Preferred for heavy multitasking and more demanding workloads, offering better error correction and support for larger memory capacities.

## 2. Graphics Performance:

- **NVIDIA Quadro or AMD Radeon Pro GPUs:** The Precision 3280 offers professional-grade GPUs designed for specific tasks in CAD, 3D rendering, machine learning, and data analysis.
- **NVIDIA Quadro Series:** Specifically tailored for professional workloads, these GPUs provide enhanced performance and stability with CAD software, rendering, and simulations.
- **AMD Radeon Pro Series:** Known for high-level graphics performance, supporting applications like Adobe Creative Suite, AutoCAD, and others.
- **Integrated Graphics Options:** In some configurations, the system can also come with integrated Intel UHD or Iris Xe graphics, which are suitable for light tasks but do not offer the power of dedicated GPUs.

## 3. Memory RAM:

- **Up to 64GB DDR4 RAM (or more depending on configuration):** The Precision 3280 supports up to 64GB of high-speed DDR4 RAM, which is essential for professionals running memory-heavy applications (e.g., video editing, virtual machines, or large datasets in data science).
- **ECC (Error-Correcting Code) Memory Option:** If equipped with Xeon processors, users can opt for ECC memory, which helps detect and correct errors, offering a higher level of reliability for mission-critical tasks.

## 4. Storage:

- **Flexible Storage Options:** The Precision 3280 allows users to configure it with a variety of storage options, including:
- **M.2 PCIe NVMe SSD:** A fast and reliable storage option that can dramatically improve boot and load times.
- **2.5-inch SATA SSD or HDD:** Additional storage options for those who need more capacity for files, backups, or projects. HDDs offer more storage capacity at a lower cost, but SSDs are far faster in terms of data access speeds.
- **Dual storage configurations:** It's common to pair a smaller SSD (for speed) with a larger HDD (for capacity), offering the best of both worlds.

## 5. Ports and Connectivity

- **Multiple USB Ports:** The Precision 3280 includes several USB 3.2 Type-A and Type-C ports, including support for USB Power Delivery, so you can charge devices like smartphones or tablets directly from the workstation.
- **Thunderbolt 3 (Optional):** Some configurations include Thunderbolt 3, allowing for high-speed data transfer (up to 40Gbps), as well as the connection of high-performance peripherals like external GPUs, docking stations, and 4K displays.
- **Ethernet & Wi-Fi:** The workstation includes Ethernet ports for wired internet connections and also supports Wi-Fi 6 for fast and reliable wireless connectivity.

## 6. Display and External Monitor Support:

- **Multiple Display Outputs:** The Precision 3280 can support multiple displays, with DisplayPort or HDMI outputs, making it suitable for multi-monitor setups.
- **Professional Color Accuracy:** Paired with professional-grade GPUs, the system can be connected to high-resolution displays and monitor setups that demand color accuracy, important for industries like graphic design, video editing, and content creation.

## 7. Design and Durability:

- **Small Form Factor (SFF) Design:** One of the standout features of the Precision 3280 is its compact size. It's smaller than typical tower workstations, measuring about 12.9 x 3.7 x 12.8 inches (33 x 9.4 x 32.5 cm), allowing it to fit into tight spaces.
- **MIL-STD-810G Certification:** The workstation is built to meet military standards for durability, making it resilient to extreme environmental conditions like vibration, shock, and temperature changes. This is particularly useful for mobile professionals who need a robust workstation on the go.

## 8. Operating System:

- **Windows 10 Pro or Windows 11 Pro (64-bit):** Most configurations come with Windows Pro versions, providing full support for business features, security, and enterprise applications.
- **Linux:** Some users may choose Linux for open-source software development, scientific computing, or other specialized tasks. The Precision 3280 is Linux-compatible, but users should ensure compatibility with their preferred Linux distribution.

## 9. Reliability and Warranty:

- **Dell Pro Support Options:** Dell offers different support plans, including Dell Pro Support, which provides 24/7 access to IT professionals, ensuring that downtime is minimized. Users can also get on-site support, hardware diagnostics, and extended warranties.

## 10. Security Features:

- **TPM 2.0 (Trusted Platform Module):** TPM helps secure sensitive data by encrypting the storage and offering secure boot options.
- **Smart Card Reader (optional):** For enhanced physical security, a smart card reader can be added for authentication.
- **Fingerprint Reader (optional):** Some models support fingerprint authentication for easy login and better user access control.

## 11. Target Audience and Use Cases:

- **Architecture & Engineering:** Perfect for professionals running demanding design, CAD, and modeling software like AutoCAD, SolidWorks, or Revit.
  - **Media & Entertainment:** Video editors, graphic designers, and animators can take advantage of its GPU support and memory for tasks like 3D modeling, video rendering, and content creation.
  - **Data Science & AI Workloads:** With powerful CPUs, GPUs, and large RAM options, this workstation is excellent for running data analysis, machine learning models, and simulations.
  - **General Office Use & Software Development:** It's a great workstation for developers, particularly those needing powerful virtual machines, containers, or databases.
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