

# Introduction

Since the introduction of Chat-GPT at the beginning of 2023, the world has become fixated on the endless possibilities surrounding artificial intelligence. However, as with the dot-com boom of the late 1990s, there remains the possibility of difficulties in introducing this technology into usable products. While the tech giants jostle to overhaul their operations in the name of advanced computing power, one area of the computing world seems less impacted than others: displays and monitors.

Therefore, the goal of this study is to analyze some of the biggest names in the display industry to determine the following things:

- What (if any) AI features are currently being advertised and marketed in the latest line of monitors
- The purposes those features are oriented towards
- What reviewers and consumers alike think about these features and the products overall

# Methodology

In order to gain an objective perspective, we studied 1-3 monitors per company. The companies studied include Dell, Lenovo, ASUS, HP, Philips, and MSI. Additional research was performed on monitors from AOC and Corsair, though no legitimate AI claims were made by those firms. The specific monitors covered in this report constitute either a flagship product, a monitor representative of a product line, or a product currently gaining industry buzz.

In addition to an in-depth look at the product specifications, features, and marketing, we observed official/media reviews (PCmag, PCgamer, Forbes, etc.) and user-generated content (Reddit, Quora, Amazon, eBay, etc.).

# Key Findings

Overall, the AI optimization of stand-alone monitors is an afterthought for many companies. The public is demanding PCs optimized for Generative AI rather than the features relevant to stand-alone monitors. However, that does not mean there are no AI features in these companies' current product suites.

Those that have optimized their displays for these new technologies have done so in specific sectors, such as gaming (MSI, Asus), medical imaging (Philips), hybrid work (HP), or content creation (Asus). Some are advertising the AI features of products not currently released to the public, [as is the case with Philips](#).

These limited forays into display-oriented AI demonstrate a "testing the waters" approach. We expect to see larger leaps forward once the public's appetite for Generative AI has been met and findings from these first, more experimental features have been tested on the open market, and more PCs have been outfitted with the proper chips that enable AI computing to be possible.

In terms of sheer volume, MSI provides the most AI-heavy marketing of all the brands observed, particularly in their [MPG product line](#). Further, it seems as if some of their new AI features were produced to intentionally create controversy in the gaming community. Much press has been devoted to specific features that allow users to “cheat” in games. Asus features what could likely be considered an equally heavy-handed pitch, though this seems to be more top-down than bottom-up, in contrast to MSI. Additionally, many of the functionalities advertised are similar.

Overall, the most prominent innovations in stand-alone monitors include different variations of these features:

- Upscaling of picture quality to fit the brightness of various digital environments
- Highlighting of specific elements on-screen to give the user an advantage on the task at hand
- Automatic shifting of color variation tailored to the user's task

It's important to note that the previous bullets do not constitute the breadth of available AI features. However, if you peel back the marketing, the vast majority may fall into one of those categories.

### **Note On Microsoft's AI Features**

It's important to note that, given the emphasis on PCs in this study, some companies are running Microsoft's new OS, which features the generative AI program Copilot+. This feature is available on some of the newest PCs, All-in-Ones, and Laptops from [Acer](#), [ASUS](#), [Dell](#), [HP](#), [Lenovo](#), and Samsung. However, it is only available on machines with Snapdragon X processors, making it less accessible than it otherwise would be.

As part of the Copilot+ suite of features, Microsoft elected to include [Auto Super Resolution \(ASR\)](#). ASR automatically upscales images, providing better color contrast and smoother motion and graphics. However, based on user reviews, this feature is not native and seems to be a work in progress.

Again, it should be stressed that this feature is **not present in standalone displays at this time**.

## **Dell**

### **Summary**

Dell has not outwardly optimized its proprietary monitors for AI, but that does not mean that AI is not in Dell's plans. From a consumer standpoint, it appears that their team has opted to focus on implementing *generative* AI into their suite of laptops in the form of the expected features that we have come to expect from this form of deep learning.

While not relevant to this study, Dell products containing Copilot+ with Snapdragon processors provide some applicable features, such as Auto Super Resolution (ASR), which automatically upscales visuals without manual intervention from the user.

## **Dell 32 Curved Gaming Monitor – S3222DGM**

### **Specs**

- Product Line: Gaming
- Refresh Rate: 165 Hz
- LCD Panel Type: OLED
- Response Time: 2 ms (gray-to-gray); 1 ms (MPRT)
- Resolution: QHD 2560 x 1440 (DisplayPort: 165 Hz)
- HDMI: 144 Hz), 4K UHD (3840 x 2160)
- Size of Monitor: 25", 27", 32", 34"
- RGB: Not Listed
- DCI-P3: Not Listed
- sRGB: 99%
- NITS Brightness: 350 cd/m<sup>2</sup>
- Curved vs. Flat Screen: Curved
- Price: \$329.99

### **Features**

- 31.5" curved QHD display offers 77% more screen content than Full HD, enhancing immersion.
- 1800R curved screen with 3-sided narrow border reduces distortion, glare, and reflection for a more immersive gaming experience.
- VA panel technology with a 3000:1 contrast ratio and sRGB 99% color coverage delivers vibrant colors and deep blacks.
- AMD FreeSync Premium Technology ensures swift, responsive, stutter-free gameplay with console VRR support.
- 165Hz refresh rate provides clarity for fast-moving visuals and faster reaction times.
- Uniquely designed downlight offers ambient illumination for gaming in low-light environments.
- Three user-defined profiles (Timer, FPS Counter, Dark Stabilizer) for personalized gaming settings.
- Quick Release slots for easy monitor installation and adjustment.
- Flicker-free screen with direct current brightness control for comfortable viewing.

### **Industry Sentiment**

Based on 4 industry reviews, it is an 8 out of 10. Priced around \$350, it offers solid value without being a standout in performance. Suitable for gaming with its high refresh rate and response

time, it lacks visual punch. It is good for competitive gaming but may not satisfy those seeking vibrant colors or HDR capability. Panel size and resolution balance detail and performance, though pixel density is lower for its size.

#### Reviewers highlighted the following qualities:

- **Image Quality:** Excellent contrast and black uniformity, great gray uniformity, and oversaturated out-of-the-box colors.
- **Motion Handling:** Excellent response time at max refresh rate, minimal overshoot.
- **Issues:** Significant black smearing in dark scenes, image washes out at angles.
- **Comparison:** Comparable to other 1440p gaming monitors like Samsung Odyssey G5.
- **Build Quality:** Decent build, but stand stability issues noted.

#### User Sentiment

- Users selected the monitor based on favorable reviews.
- Reviews highlighted deep blacks and high contrast, but initial testing hasn't convinced users.
- When playing a game on a gaming console, colors are vibrant in lighter scenes, but blacks appear "milky" in darker scenes. Adjusting brightness and contrast settings did not resolve the issue.
- Optimal gamma levels were configured within games, yet blacks continue to appear unnaturally bright.
- Users sought advice on whether this issue is typical for this monitor and looking for recommended settings adjustments.

### [Alienware 34 Curved QD-OLED Gaming Monitor - AW3423DW](#)

#### Specs

- Product Line: Alienware
- Refresh Rate: DisplayPort 175 Hz, HDMI 100 Hz
- LCD Panel Type: OLED
- Response Time: 0.1ms gray-to-gray
- Resolution: WQHD 3440 x 1440
- Size of Monitor: 25", 27", 32", 34"
- RGB: Not Listed
- DCI-P3: 99.3%
- SRBG: 149% sRGB (CIE 1931)
- NITS Brightness: 250 cd/m2 (typical) ; 1000 cd/m2 (peak)
- Curved vs. Flat Screen: Curved
- Price: \$1099.99

## Features

- **Quantum Dot Display Technology**
  - Slim panel design
  - Superior color performance
  - Higher peak luminance and greater color gamut range vs WOLED
  - 99.3% DCI-P3 cinema-grade color coverage
  - Accurate colors out of the box with Delta E less than 2
- **Visual Performance**
  - 1000 nits peak brightness
  - Infinite contrast ratio
  - VESA Display HDR True Black 400 certification
  - Realistic visuals for immersive gaming experiences
- **Gaming Experience**
  - Ultra-low latency gameplay
  - Support for HDR and cinematic color
  - NVIDIA G-SYNC ULTIMATE certification
- **Creator Mode**
  - Designed for color-critical work
  - Allows choice between native (DCI-P3) and sRGB color space
  - Adjustable gamma settings
- **Quality Assurance**
  - Engineered to avoid burn-in from long on-screen items
  - 3-year service coverage for OLED burn-in protection
  - Comfort View Plus reduces blue light emissions without impacting color accuracy

## Industry Sentiment

Based on 5 industry reviews, this model was rated a 9 out of 10 on average. According to reviewers, this monitor stands out with its stunning image quality, gorgeous colors, and excellent HDR performance. It is designed with Quantum Dot-OLED technology and offers vivid colors, fast response times, and perfect black levels, making it an ideal choice for gamers and movie enthusiasts. The immersive curved ultrawide screen enhances the visual experience, providing an engaging and responsive display without ghosting or tearing. The monitor's sleek design, customizable lighting, and excellent build quality further add to its appeal, making it a worthy investment for those who spend long hours in front of a screen.

However, the monitor does have some drawbacks, particularly in brightly lit environments where too much white on the screen can cause issues, and the fan noise can become noticeable during text-heavy tasks. Additionally, the 21:9 aspect ratio may not be supported by all content, resulting in black bars for some movies and games. Despite these minor complaints, the Alienware AW3423DW remains a top choice for mixed-use cases, excelling in gaming and movie performance. With a three-year warranty covering OLED burn-in and the promise of an even more affordable alternative on the horizon, it continues to offer excellent value for its price.

## User Sentiment

- Users chose the monitor based on glowing reviews about its image quality.
- Reviews praised the vivid colors and HDR performance, but some users remain skeptical after initial use.
- In gaming, users found the screen to be incredibly immersive, enhancing their experience significantly.
- The QD-OLED technology impressed users with its deep blacks and vibrant colors, setting a new standard.
- Smooth gameplay was a highlight, with no ghosting or screen tearing, meeting users' high expectations.
- The sleek design and customizable lighting were appreciated, contributing to the monitor's premium feel.
- Users noted issues in bright rooms, where reflections and visibility problems became apparent.
- Fan noise during text-heavy tasks was mentioned, with some finding it more noticeable than expected.
- The 21:9 aspect ratio caused black bars in certain content, prompting questions about compatibility.
- Users valued the three-year warranty, particularly the coverage for OLED burn-in, as a significant reassurance.

## Lenovo

### Summary

**While not featured in their stand-alone monitors**, Lenovo's attempt at AI integration into their displays includes The ThinkBook Transparent Display Laptop Concept, which features a 17.3-inch Micro-LED transparent display that combines AI-generated content to enhance collaboration and creativity. This design allows users to interact with physical objects while overlaying digital information. The transparent display provides high color saturation, strong contrast, and 1000-nit brightness, making it adaptable to various settings.

As mentioned above, some of their newer machines also feature Copilot+, which offers some AI display tech.

### [ThinkVision 39.7-inch Ultra-Wide Curved Monitor - P40w-20](#)

### Specs

- Product Line: Business
- Refresh Rate: 75 Hz
- LCD Panel Type: OLED
- Response Time: 4ms (Extreme Mode), 6ms (Normal Mode)

- Resolution: 5120 x 2160 WUHD
- Size of Monitor: 39.7-inch
- RGB: Not Listed
- DCI-P3: 98%
- SRBG: 99%
- NITS Brightness: 300 cd/m2
- Curved vs. Flat Screen: Curved
- Price: \$1649.00
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## Features

### Display and Resolution

- 2500R curvature for immersive viewing.
- In-plane switching (IPS) panel for consistent and accurate colors from any angle.
- 98% DCI-P3 color gamut, 1.07 billion color depth, and 99% sRGB performance.
- Factory-calibrated color accuracy with  $\Delta E < 2$  variance.
- Natural Low Blue Light technology to reduce harmful blue rays.

### Connectivity and Ports

- A total of 12 ports, including two Thunderbolt 4 ports.
- USB4 technology supports up to 40Gbps of data and video transfer.
- Thunderbolt 4 Hub Monitor provides a one-cable solution for power, data transfer, ethernet, audio, and video.
- It can carry a daisy chain with a second monitor with a 5K or 2K resolution up to 75 Hz.

### Productivity Features

- Lenovo patented eKVM for instant access to two PC sources with a 2-button mouse click.
- True Split feature to view two sources simultaneously through Picture-by-Picture (PbP) with one cable.
- ThinkVision's ThinkColour software for easy switching between color gamut modes, brightness, and contrast.

### Security and Network Management

- First Thunderbolt 4 monitor to support Intel Active Management Technology (AMT) for Intel vPro clients.
- Secure connection via Gigabit RJ45 port with features like MAC address pass-through, PXE boot, and Wake-on-LAN.
- LAN status displays on the screen with ThinkColour software.
- Power modes include S3 (Sleep), S4 (Hibernate), and S5 (PC power off, monitor standby).

## Industry Sentiment

Based on 3 reviews, this monitor received an average of 8.5 out of 10. Reviewers praised its 39.7-inch curved display, offering sharp resolution and vibrant color reproduction. It features two Thunderbolt 4 ports and a versatile USB hub, making it easy to connect multiple devices.

Professionals will appreciate its smooth performance for multitasking, supported by a built-in KVM switch and Picture-in-Picture functionality. The monitor's adjustable stand allows for ergonomic customization, though some users may find its lack of VESA mount support limiting for certain setups. Overall, it's a solid choice for office use, effectively balancing size, connectivity, and productivity features.

## User Sentiment

- **Performance and Usability**
  - Users are pleased with the monitor's software development and general use performance.
  - The monitor's real estate and the use of tools like Divvy for managing screen space are appreciated.
  - The inclusion of a Lenovo 2MP webcam is seen as a nice surprise, though its quality is just "okay."
- **Comparison with Other Monitors**
  - The Lenovo P40w-20 is compared favorably to other models like Dell's monitors, particularly for having additional features like front buttons and concurrent Ethernet connections.
  - The community values Thunderbolt 4 (TB4) connectivity for future-proofing.
- **Challenges and Concerns**
  - Some users experience issues like delays in shipping and concerns about monitor features like ghosting in dark scenes or the behavior of the Ethernet dock.
  - One user notes a specific problem with saturation and contrast in PBP and Truesplit modes.
- **Overall Satisfaction**
  - Despite some minor issues, the overall sentiment is positive, with users expressing satisfaction with their purchase.
  - Enthusiasm for using the monitor to enhance productivity and improve workflow is evident.
- **Future Use and Recommendations**
  - Users are interested in maximizing the monitor's capabilities, such as using it as a docking station and exploring its KVM features.
  - Recommendations for potential buyers, such as price deals and setup tips, reflect a helpful community atmosphere.

## [Lenovo 31.5 inch Gaming Monitor - Y32p-30](#)

### Specs

- **Product Line:** Gaming
- **Refresh Rate:** 144Hz
- **LCD Panel Type:** OLED

- **Response Time:** 0.2ms (MPRT), 2ms (Level 4), 3ms (Level 3), 4ms (Level 2), 5ms (Level 1), 7ms (Off)
- **Resolution:** 3840 x 2160 (4K UHD)
- **Size of Monitor:** 31.5 inches
- **RGB:** 10-bit color reproduction (1.07 billion colors)
- **DCI-P3:** 90%
- **SRBG:** 99%
- **NITS Brightness:** 350 cd/m<sup>2</sup> (typical), 400 cd/m<sup>2</sup> (peak)
- **Curved vs. Flat Screen:** Flat screen
- **Price:** \$599.99

## Features

- **Immersive Visuals:** Offers sharp pixels and high-quality visuals on a 31.5-inch IPS display with a 3840 x 2160 resolution.
- **Smooth Gameplay:** Features a 144Hz refresh rate and 0.5ms response time to minimize ghosting and motion blur.
- **Vivid Colors:** Provides 10-bit color reproduction supporting 1.07 billion colors for lifelike environments.
- **Enhanced Connectivity:** Includes a USB Type-C docking solution for file sharing, data transfer, and device charging.
- **Multitasking Capabilities:** Supports Picture-in-picture (PiP) and Picture-by-Picture (PBP) modes for displaying content from multiple sources.
- **User-Friendly Design:** NearEdgeless design and a Keyboard-Video-Mouse (KVM) switch for easy control of multiple monitors and systems.

## Industry Sentiment

The average rating is 7 out of 10 based on 5 reviews. The monitor has a flexible design but does not support portrait mode rotation. However, its contrast ratio and brightness in SDR mode are somewhat disappointing, and its speakers produce lackluster audio.

In testing, it showed good color accuracy and acceptable input lag for most gaming needs. While it includes useful features like AMD FreeSync Premium, its overall performance does not stand out compared to competitors, especially considering its price. The monitor is a reliable option for casual gaming and general use but may not be worth the full price compared to superior OLED alternatives.

## User Sentiment

- The port selection is highly praised for being modern and comprehensive.
- The monitor is suitable for various devices, including Xbox Series X, Mac mini M2, and a Windows laptop, and supports multiple connections.
- One user found the monitor not widely available and shared that Lenovo gifted it through a giveaway.

- The KVM switch feature is noted but has not yet been fully explored by some users.
- The monitor is generally well-received, with no major issues reported, though one user struggled with height adjustment.
- Built-in speakers are considered loud but lacking in detail and bass.
- The overall design and aesthetic of the monitor are positively received.
- The monitor's large size and high resolution provide an impressive gaming experience.

## Asus

Asus has stressed AI features in their new line of monitors, creating a buzz at recent trade shows. One of the key features is the "Dynamic Shadow Boost," which automatically brightens dark areas in games to improve visibility without overexposing brighter sections. Another significant AI-driven feature is the "Dynamic Crosshair," which provides an AI-generated crosshair for enhanced accuracy. Additionally, the monitor includes "Color Temperature Selection" with four different modes, allowing gamers to choose the best color settings for different environments, and "GameFast Input," which utilizes AI optimization to reduce input lag, ensuring quicker response times in fast-paced gaming scenarios.

It's important to note that these AI features are found in their Gaming line (XG259QNS) but are irrelevant to their other product lines, such as their Creative (PA32UCXR) line.

### ROG Strix XG259QNS

#### Specs

- Product Line: Gaming
- Refresh Rate: 380Hz
- LCD Panel Type: OLED
- Response Time: 1ms(GTG), 0.3ms(min.)
- Resolution: 1920x1080
- Size of Monitor: 24.5
- RGB: Not Listed
- DCI-P3: Not Listed
- SRBG: 110%
- NITS Brightness: 400 cd/m<sup>2</sup>
- Curved vs. Flat Screen: Flat
- Price: \$449

#### Features

- **Dynamic Shadow Boost:** This feature automatically enhances visibility in dark areas of the game without overexposing brighter areas. Dynamically adjusting the brightness helps gamers spot enemies hiding in shadows, giving them a competitive edge.

- **Dynamic Crosshair:** This AI-powered feature provides a smart, on-screen crosshair that adjusts to the game environment, improving aiming accuracy. It ensures that the crosshair remains visible and effective, regardless of the in-game background.
- **Color Temperature Selection:** The monitor includes four different AI-adjusted color temperature modes. These modes allow gamers to select the best color settings for various gaming environments, optimizing visual clarity and comfort.
- **GameFast Input Technology:** This feature utilizes AI optimization to reduce input lag, ensuring quicker response times. This is particularly important for fast-paced games, where milliseconds can make a difference in performance and reaction time.

## Industry Sentiment

Based on 7 reviews, this monitor averaged an 8 out of 10. It excels as a gaming monitor with its standout motion handling capabilities, driven by its exceptional 360Hz refresh rate and quick response time. It supports both G-SYNC and FreeSync, ensuring smooth gameplay without tearing. The monitor's ergonomic design and wide viewing angles enhance its versatility for different gaming setups. However, its IPS panel's low contrast ratio limits its performance in dark environments, where blacks appear grayish. Despite these drawbacks, its overall performance and gaming-focused features make it a solid choice for competitive gamers seeking top-tier responsiveness and clarity in fast-paced gaming scenarios.

## User Sentiment

- **Motion Clarity:** Users generally praise the monitor for excellent motion clarity, which compares favorably to 360Hz OLED displays.
- **Response Times:** Response times are noted to be great at settings other than maximum, with specific mention of using 12 overdrive.
- **ELMB (Extreme Low Motion Blur):** ELMB enhances motion clarity further without noticeable input lag, making it suitable for competitive gaming.
- **Settings:** Recommended settings include using ELMB on the highest clarity setting and leaving variable overdrive untouched, as it performs well out of the box.
- **Performance:** Users report achieving high performance in reactive tracking scenarios, suggesting the monitor's capabilities in fast-paced gaming.
- **Comparison:** Compared to older 360Hz monitors, the XG259QN offers similar performance but with updated features like the ability to overclock to 380Hz, though this increase is seen as negligible.
- **Panel Type:** It uses an updated IPS panel, providing good color accuracy and fast response times suitable for gaming.

## [ProArt Display PA32UCXR](#)

### Specs

- Product Line: Art

- Refresh Rate: 60Hz
- LCD Panel Type: OLED
- Response Time: 5ms(GTG)
- Resolution: 3840x2160
- Size of Monitor: 32"
- RGB: Not Listed
- DCI-P3: 97%
- SRBG: 99%
- NITS Brightness: 1,600 cd/m<sup>2</sup>, 1000cd/m<sup>2</sup>
- Curved vs. Flat Screen: Flat
- Price: \$2,999

## Features

- **Local Dimming:** 2304-zone mini LED backlight with 1600 nits peak brightness and 1000 nits sustained full-screen brightness for exceptional contrast (1,000,000:1 contrast ratio).
- **Color Accuracy:** True 10-bit color depth, Quantum Dot technology, and supports 99% Adobe RGB, 97% DCI-P3, and Rec. 2020 color gamuts with Delta E < 1 for precise color reproduction.
- **Calibration:** Built-in motorized colorimeter with self/auto-calibration capability, compatible with Calman and Light Illusion ColourSpace professional calibration software.
- **HDR Support:** HDR-10, HLG, and Dolby Vision support for vibrant HDR content creation and viewing.
- **Connectivity:** Dual Thunderbolt™ 4 ports with up to 90W Power Delivery, HDMI®, DisplayPort™, and a built-in USB hub for versatile connectivity.
- **Design:** Ergonomic stand, VESA DisplayHDR 1400 certified, and eco-friendly design with recyclable packaging and energy-efficient performance.
- **Additional Features:** ASUS Smart HDR technology, TÜV Rheinland-certified for low blue light and flicker-free viewing, and extensive connectivity options for efficient multi-device workflows.

## Industry Sentiment

Based on 3 reviews, this monitor was rated a 9 out of 10. It stands out not only for its technological prowess in HDR support and color accuracy but also for its thoughtful design aimed at enhancing productivity and creative workflows. It sets a new standard in monitor innovation, making it a compelling choice for professionals seeking uncompromising performance in visual content creation.

One of the standout features of the PA32UCXR is its integrated motorized flip colorimeter, which facilitates self and automatic calibration processes. This monitor supports ASUS ProArt Calibration, Calman, and Light Illusion ColourSpace CMS software, ensuring precise color reproduction and eliminating the need for additional calibration tools. Connectivity options are robust, including dual Thunderbolt 4 ports, HDMI 2.0, DisplayPort 1.4, and a USB hub, catering to seamless multi-device workflows. With ergonomic design features like tilt, swivel, and height

adjustment, plus compatibility with VESA wall mounts, the PA32UCXR offers flexibility and comfort for extended professional use.

## User Sentiment

- **Color Space Coverage:** Recent calibrations only achieve around 52% coverage in SDR modes.
- **Appearance:** Screen appears washed out with the applied color profile.
- **Hardware Suspicions:** Upon return, users suspect a potential hardware issue, given previous repair history and physical damage.
- **Software Compatibility:** ASUS' calibration software is criticized for poor Mac support and compatibility issues with current OS versions.
- **Overall Perception:** Despite its professional-grade features, reliability issues and inadequate support undermine the monitor's reputation among users.

## HP

In contrast to other companies, HP has elected to focus its AI integrations on desktop computers, which cater to businesses rather than gamers or content creators. However, the company has elected to provide several AI features in its displays. While many other companies have focused on optimizing their hardware for gaming, HP has elected to focus on improving the experience of hybrid workers.

For example, these monitors are equipped with an integrated AI privacy webcam, which ensures secure virtual interactions by automatically adjusting privacy settings and providing high-quality video for conferencing. The AI capabilities extend to optimizing display settings based on ambient lighting conditions, ensuring consistent visual clarity and reducing eye strain.

Additionally, AI-powered adaptive brightness and color temperature adjustments personalize user comfort and efficiency. Additionally, Poly Studio Solutions improve video conferencing with advanced AI features like Noise Reduction and automatic framing.

These innovations effectively minimize background noise and optimize camera framing to keep participants centered and in focus, enhancing communication clarity and productivity in hybrid work environments.

## [HP Series 7 Pro 39.7 inch 5K2K Conferencing Monitor-740pm](#)

### Specs

- Product Line: Series 7
- Refresh Rate: Not Listed
- LCD Panel Type: OLED
- Response Time: 5ms GtG (with overdrive)

- Resolution: WUHD (5120 x 2160)
- Size of Monitor: 39.7"
- RGB: Not Listed
- DCI-P3: 93%
- SRBG: 100%
- NITS Brightness: 300 nits
- Curved vs. Flat Screen: Curved
- Price: \$1,499.00

## Features

- **Color Accuracy:** Factory-calibrated for 100% sRGB and 98% Display P3 wide color gamuts, displaying 1.07 billion colors
- **Connectivity:** Two Thunderbolt™ 3 ports with up to 165W power delivery, supporting dual PC connection
- **Integrated Features:** Includes a 13MP webcam, noise-canceling microphones, and high-fidelity speakers for enhanced conferencing
- **Sustainability:** Made with 85% post-consumer recycled materials and 5% ocean-bound plastics, sustainable packaging
- **Adjustability:** Height adjustable, tilt, and swivel capabilities for ergonomic comfort
- **Additional Features:** Anti-glare coating, HP Eye Ease for reduced eye strain, Picture-by-Picture mode for multitasking

## Industry Sentiment

This model does not have any reviews in the major outlets at the time of writing.

## User Sentiment

This model does not have any cohesive reviews on user websites at the time of writing.

## [OMEN by HP 31.5 inch QHD 165Hz Curved Gaming Monitor - OMEN 32c](#)

## Specs

- Product Line: Gaming
- Refresh Rate: 1ms GtG (with overdrive)
- LCD Panel Type: OLED
- Response Time: 1 ms
- Resolution: QHD (2560 x 1440)
- Size of Monitor: 31.5"
- RGB: Not Listed
- DCI-P3: 90%
- SRBG: 99%

- NITS Brightness: 400 nits
- Curved vs. Flat Screen: Curved
- Price: \$379

## Features

- High refresh rate of 165Hz and quick 1ms response time ensure smooth and fluid motion, crucial for fast-paced gaming where every millisecond counts.
- QHD resolution offers detailed and sharp images, allowing gamers to appreciate finer details in their visuals.
- Color accuracy with 99% sRGB and 90% DCI-P3 ensures vibrant and lifelike colors, important for both immersive gaming and content creation.
- HDR support enhances contrast and brightness, providing better clarity in both dark and bright scenes.
- Multiple connectivity options, including DisplayPort™ 1.4 and HDMI 2.0, offer flexibility in connecting PCs, consoles, and other devices.
- AMD FreeSync™ Premium technology helps eliminate screen tearing and lag, providing a smoother and more enjoyable gaming experience.

## Industry Sentiment

Out of 3 reviews this monitor received an average score of 8 out of 10. Reviewers frequently mentioned this as a compelling option for budget-conscious gamers and PC builders looking for solid performance without breaking the bank. Despite lacking bells and whistles like built-in speakers and HDMI 2.1, it excels with super-low input lag, good brightness, and HDR performance that exceeds its DisplayHDR 400 rating. The monitor's design is straightforward and functional, though it sacrifices ergonomic features and connectivity options to maintain affordability.

In testing, the Omen 32q impressed with its 380-nit brightness for SDR content and achieved a solid color gamut coverage suitable for casual gaming and multimedia consumption. While not perfect for professional use due to its Delta E of 2.1, it remains a reliable choice for gamers prioritizing performance over premium features. Overall, HP's decision to focus on core gaming essentials makes the Omen 32q a standout in its price range, ideal for gamers seeking a dependable QHD monitor without unnecessary frills.

## User Sentiment

- Generally positive user impressions on quality and features
- G-Sync compatibility noted
- HDR performance disappointing, typical for HDR 400
- SDR performance good out of the box, potential for calibration
- Multiple display presets available, with varying usefulness
- Configuration via HP Omen Gaming Hub and on-monitor settings

- Supports PS5 with 1440p at 60Hz and 120Hz HDR, VRR not functional
- Mild ghosting observed, optimized with overdrive setting 2 (fast)
- Minimal backlight bleed, primarily at bottom left corner

## Philips

In the same way that HP has elected to focus its AI display features on the business market, Philips has elected to orient its AI display features [towards the medical imaging market](#). However, these monitors are still in testing.

For example, one of the most prominent features is referred to as “Precise Image.” This feature is a method for reconstructing CT scans using advanced technology like convolutional neural networks and supervised learning. It's designed to lower radiation exposure and image noise while maintaining fast processing times. Validated by a global team of medical experts, Precise Image enhances diagnostic accuracy by improving image clarity, reducing unwanted visual disturbances, and ensuring high-quality scans across different patient conditions. Healthcare professionals have full control over how they apply and adjust Precise Image settings, allowing them to tailor CT scans to meet specific clinical needs.

While Philips has not demonstrated an urgency to provide AI features in its consumer-facing product suite, it seems possible that the advances in its medical imaging devices may eventually translate into products for gaming, work, and other more typical tasks.

## [Envia 34M2C8600](#)

### Specs

- Product Line: Gaming
- Refresh Rate: Not Listed
- LCD Panel Type: OLED
- Response Time: 0.03 ms (Gray to Gray)
- Resolution: HDMI: 3440 x 1440 @ 100 Hz, DP/USB-C: 3440 x 1440 @ 175 Hz
- Size of Monitor: 34”
- RGB: 97%
- DCI-P3: 99.3%
- SRBG: 100%
- NITS Brightness: SDR: 250 (APL 100%) nit, HDR: 450 (APL 10%) nit, HDR E/P: 1000 (APL 3%)
- Curved vs. Flat Screen: Curved
- Price: \$799

## Features

- **Ultra Wide-Color Technology:** Enhances color vibrancy with a wider color gamut, producing natural greens, vivid reds, and deep blues for more lifelike media and productivity experiences.
- **Ambiglow:** Creates a halo of light around the monitor to enhance on-screen content. It adjusts color and brightness dynamically based on the image, offering an immersive viewing experience ideal for movies, sports, and games.
- **MultiView with KVM:** Allows simultaneous display and control of two devices using a single keyboard and mouse. It reduces cable clutter and saves time, beneficial for streamers, content creators, and LAN events.
- **Enhanced Audio with DTS Sound™:** Optimizes audio playback across various media formats, providing virtual surround sound, rich bass, and clear dialog, ensuring an immersive audio experience.
- **SmartImage Game Mode:** Offers quick access to gaming-optimized settings via OSD. Modes like "FPS," "Racing," and "RTS" tailor display settings for different game genres, enhancing visibility and responsiveness.
- **AMD FreeSync™ Premium Pro:** Enables smooth HDR gaming with low latency, delivering high dynamic range visuals without stuttering or tearing, ensuring a seamless gaming experience

## Industry Sentiment

Out of 6 reviews, this Monitor was rated an average of 9 out of 10. At its comparatively modest price, it boasts a striking design with a unique Ambiglow lighting system that enhances the viewing experience by adapting to on-screen content. The monitor supports a WQHD resolution of 3440x1440 pixels and achieves impressive color accuracy across multiple gamut standards. It also excels in motion clarity with a VESA ClearMR rating of 9,000, ensuring smooth gameplay at its maximum 175Hz refresh rate over DisplayPort (100Hz over HDMI).

Despite lacking HDMI 2.1 ports, which would have been beneficial for console gaming, the Evnia compensates with robust connectivity options, including two HDMI 2.0 ports, DisplayPort, USB-C, and multiple USB Type-A ports. While its input lag of 6.3 milliseconds may be slightly higher than ideal for competitive gaming, the inclusion of AMD FreeSync Premium Pro mitigates screen tearing effectively. Overall, the Philips Evnia 34M2C8600 impresses with its stellar performance, making it a worthy contender in the premium gaming monitor category, especially for those prioritizing visual quality and immersive gaming experiences.

## User Sentiment

Many users purchased the Philips QD-OLED primarily due to a significant price reduction during a sale, making it a compelling choice despite its unusual brand for monitors. Many were already accustomed to OLED technology and appreciated its advantages. However, their experience with the Philips QD-OLED took a sharp turn towards disappointment.

The users find the Philips QD-OLED to be the worst monitor they have ever owned, primarily due to its numerous flaws and limitations. Despite being an OLED display, which typically excels in HDR and movie watching, the QD-OLED falls short in several key areas. Issues such as suboptimal screen sizes, obsolete resolutions like 1440p, inadequate refresh rates, and connectivity limitations with HDMI 2.0 are highlighted. Additionally, the monitor lacks G-Sync certification, which, while functional, isn't officially supported by NVIDIA.

In terms of specific issues with the Philips QD-OLED, users note:

- The monitor's build quality and design were initially intriguing, with a unique appearance and RGB Ambilight, but usability quickly became an issue.
- Calibration discrepancies were noticeable, with significant color inaccuracies corrected only after extensive calibration efforts.
- The OSD navigation was cumbersome and unintuitive, requiring directional movements rather than a press to confirm selections.
- Physical defects included scratches on the screen due to inadequate shipping protection and a built-in power transformer that produced an audible buzzing noise.
- Essential features like dedicated sRGB mode, RGB controls, and comprehensive HDR settings were notably absent or poorly implemented.
- The Automatic Brightness Limiter (ABL) was always active, affecting brightness levels dynamically based on content, which users found intrusive and uncontrollable.

## MSI

MSI's newest monitor series' includes several AI-driven features designed to enhance gaming and productivity experiences. Key features include Smart Brightness, which automatically adjusts screen brightness based on ambient light conditions to reduce eye strain and enhance visibility. Smart RGB uses AI to synchronize RGB lighting with on-screen action, providing immersive lighting effects that react to gameplay. The Smart Crosshair feature adjusts the crosshair's position automatically to improve accuracy in shooting games based on AI recognition of the game's environment. Additionally, the Optix Scope is an AI-powered zoom-in feature that enhances aim precision by providing a closer view of the target area.

Further enhancing the gaming experience, the Smart Framerate feature dynamically adjusts the monitor's refresh rate to match the frame rate of the game, ensuring smooth and tear-free gaming. Night Vision AI enhances visibility in dark areas of games by automatically adjusting brightness and contrast, making it easier for players to spot enemies. The Gaming OSD App 2.0 offers AI-assisted customization and optimization of monitor settings through an intuitive on-screen display interface, allowing for quick adjustments tailored to different types of games and activities. These features combine to create a more adaptive, immersive, and responsive gaming environment, leveraging AI to optimize performance and user experience.

## MPG 491CQP QD-OLED

### Specs

- Product Line: MPG (gaming)
- Refresh Rate: 144Hz
- LCD Panel Type: OLED
- Response Time: 0.03ms (GtG)
- Resolution: 5120 x 1440 (DQHD)
- Size of Monitor: 49"
- RGB: 98%
- DCI-P3: 99%
- SRBG: 146%
- NITS Brightness: 250
- Curved vs. Flat Screen: Curved
- Price: \$999

### Features

- **High dynamic range**
  - VESA DisplayHDR True Black 400
  - Brilliant colors and high contrast
  - 99% DCI-P3 color gamut with Delta E  $\leq$  2
- **Motion clarity**
  - Certified with ClearMR 8000
  - Mitigates motion blur
- **Console gaming support**
  - HDMI 2.1 ports with 48Gbps bandwidth
  - 120Hz support, VRR, and ALLM
- **OLED protection**
  - MSI's OLED Care 2.0 reduces risk of burn-in
  - Fan-less design with custom heatsink and graphene film
- **Gaming Intelligence features**
  - KVM
  - AI Vision
  - Smart Crosshair

### Industry Sentiment

Based on 3 reviews, this monitor was ranked 8 out of 10. It features the latest Samsung QD-OLED panel technology, delivering vivid colors and stunning HDR. With a 175Hz refresh rate and 0.03ms response time, it offers swift gaming performance. While it lacks extra features that could elevate its price, its performance and image quality make it one of the best gaming

monitors available. The monitor is highly competitive with similar models in its price range, though its 175Hz refresh rate falls short compared to some 240Hz screens.

Despite its minor shortcomings, such as average text clarity and a few missing features, the MSI MPG 491CQP stands out in the crowded market of 49-inch gaming monitors. Its massive screen is perfect for immersive gaming and desktop work, offering excellent overall image quality and HDR performance. MSI has also integrated practical features like a USB hub and KVM switch, although only USB 2.0 ports are included. The monitor's design is functional, with a passive cooling system and adjustable stand, but it lacks RGB lighting and built-in speakers.

In terms of competition, the MSI MPG 491CQP is favorably priced at around \$1,099.99, often discounted to \$999.99. It competes directly with the Samsung G95SC, which offers a 240Hz refresh rate and more features for a slightly higher price. Alternatives like the Alienware AW3423DW provide smaller, 34-inch OLED options with better text clarity and a 21:9 aspect ratio more suitable for gaming and movies. Overall, the MSI MPG 491CQP offers substantial screen space and performance for its price, making it a great all-around choice for gamers and productivity users.

### **User Sentiment**

Notable users experienced losses and failures due to the MSI OLED care overlay. The overlay and monitor shut off automatically, causing 30 minutes of downtime. They expressed frustration over the unexpected and uninterruptible care program. The monitor was set to 16 hours for OLED care, but it triggered despite not being used for that duration, leading users to suspect a bug in the timer logic.

Users called for the ability to postpone or mute the care process. They suspected that USB-C power delivery in standby mode might be interfering with the OLED care. To address the issue, users planned to turn the monitor fully off overnight and track the timer and refresh count. Other users shared similar experiences and tips, such as avoiding standby mode or manually running pixel care after gaming.

MSI is aware of the issue and plans to update the firmware to address it. Users emphasized the importance of a reliable solution for those with time-sensitive tasks.