

## **Apple Vision Pro**

*The Good, the Bad, and the Ugly*

By John Bae



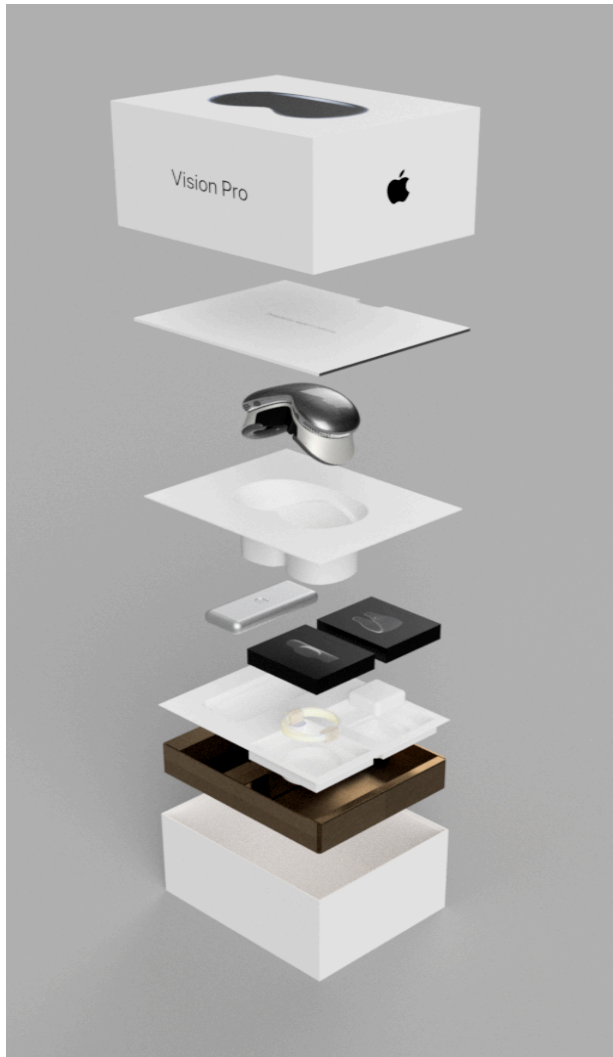
A month later, is it the rise of a cyberpunk future or a \$7k paperweight?

It seems every day now that a new invention promises to shake up the world as it pioneers the path into the future. We've gotten self-driving cars, incredible AI that can answer anything or create any image/video, we've even gotten the first man to have a chip in his brain via Elon Musk. The days of cyberpunk cities and black mirror type technologies are no longer in the distant future but right over the horizon. And now, with the advent of VR technology we might be emulating popular concepts like Ready Player One. Will it be a dystopia or a paradise? We can't answer that, but we can give you all the new and updated information on what the people are thinking of the Apple Vision Pro, one month after its launch. We'll also compare its current main competitor, the MetaQuest 3's at the end. Is there any validity for the \$3000 difference in price tag? Let's find out.

### **The Good**

As with most Apple products, no expense was spared in the aesthetics of the Vision Pro. It looks straight out of Men in Black in terms of futuristic technology, a bleeding edge product that visually only underwhelms in terms of its rather clunky size. It almost resembles a highly advanced ski goggles visor, showcasing the classic Apple mentality of having the top of the line quality while being elegantly simple on the surface. While many VR headsets are predominantly made of plastic and other materials of the like, the Vision Pro is constructed of magnesium and carbon fiber encased in aluminum. In addition,

Apple enthusiasts can rest easy with the 2 week return policy, allowing a grace period to decide if the headset really is for you.

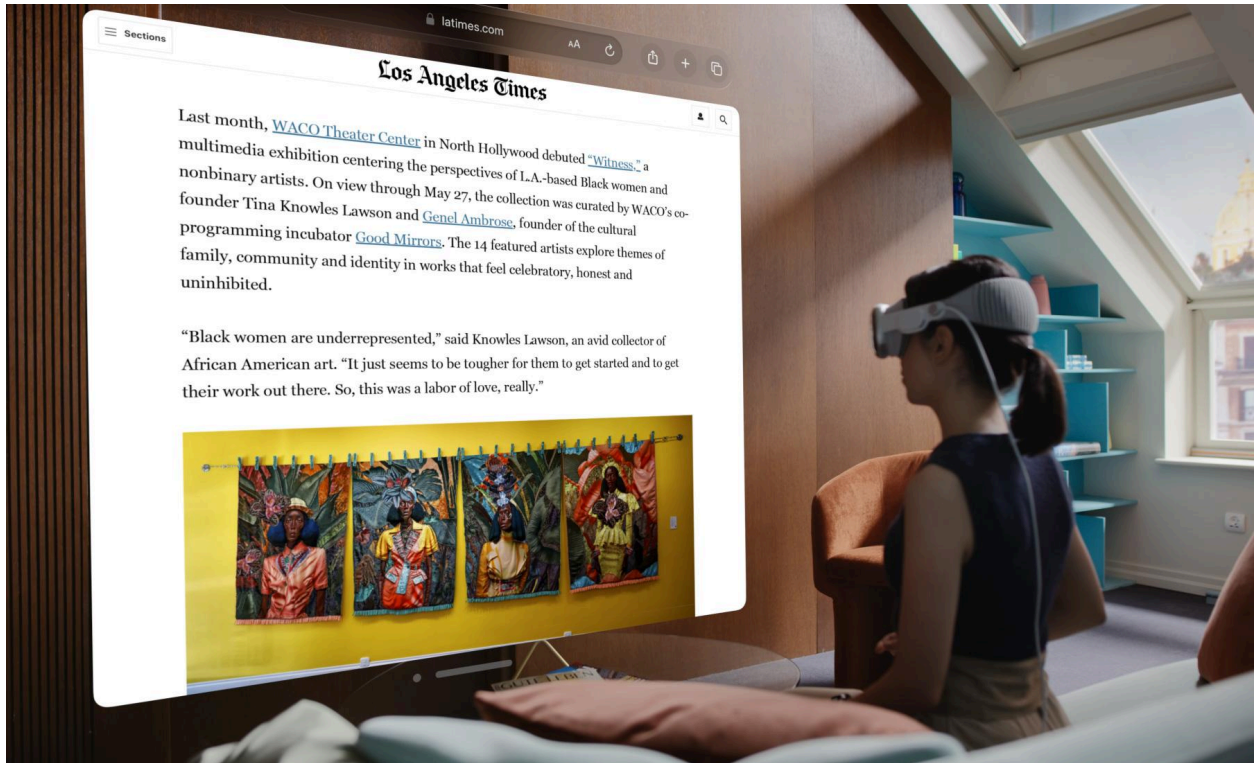


### Packaging

Without a doubt, the Vision Pro is one of the most incredible pieces of consumer technology to have ever shipped. The packaging reflects the design of the hardware itself, aiming for a "space odyssey/shoot for the moon" type of vision. The Vision Pro comes in a strong, padded case similar to the boxes used by NASA for their equipment while in space. The typical Apple release tab clips are orange and add to the state of the art special project vibe. Some people say that half of the Apple experience is in the unboxing, and this is definitely supportive of that opinion. The combination of mystery, anticipation, refinement is a unique sensation that explains why so many believe the Vision Pro to be the final stage of computing, eradicating physical screens forever.

### Visuals

The main advantage that makes the Vision Pro stand out from its competitors is in its visual resolution. While other headsets' displays often bring out complaints for grainy or blurry screens, the Vision Pro's ultra-high resolution displays more pixels than a 4K TV for each eye. To put it into perspective, you would need to watch a movie on a 1100 foot screen to match that experience. The micro OLED display delivers an exceptional viewing thanks to the ability to display truly black pixels for darker colors. Coupled with a brightness of 5000 nits, the Vision Pro offers an exceptional range of visuals in every category.



Another driving factor for the Vision Pro is the augmented reality designed to allow users to interact with people in their physical proximity, overcoming the usual sense of isolation often associated with using VR headsets. The unique 3D display at the front made waves when it first appeared, displaying the user's eyes so you don't feel like you're talking to someone who's blindfolded like other headsets do. This idea to allow users to stay visually connected with their surroundings and the people around them is exceptional, but the execution may have been lacking according to reviews. (More on this later in the Bad section.)

The advanced 3D mapping systems and displays create an incredibly accurate view of the outside world, which you can explore with the addition of VR elements fully customizable in the Vision interface. Overall, the combination of visuals for both the virtual graphics as well as the outside world make for a potent combo.

Features

First, let's take a quick look at the tech specs for the Vision Pro

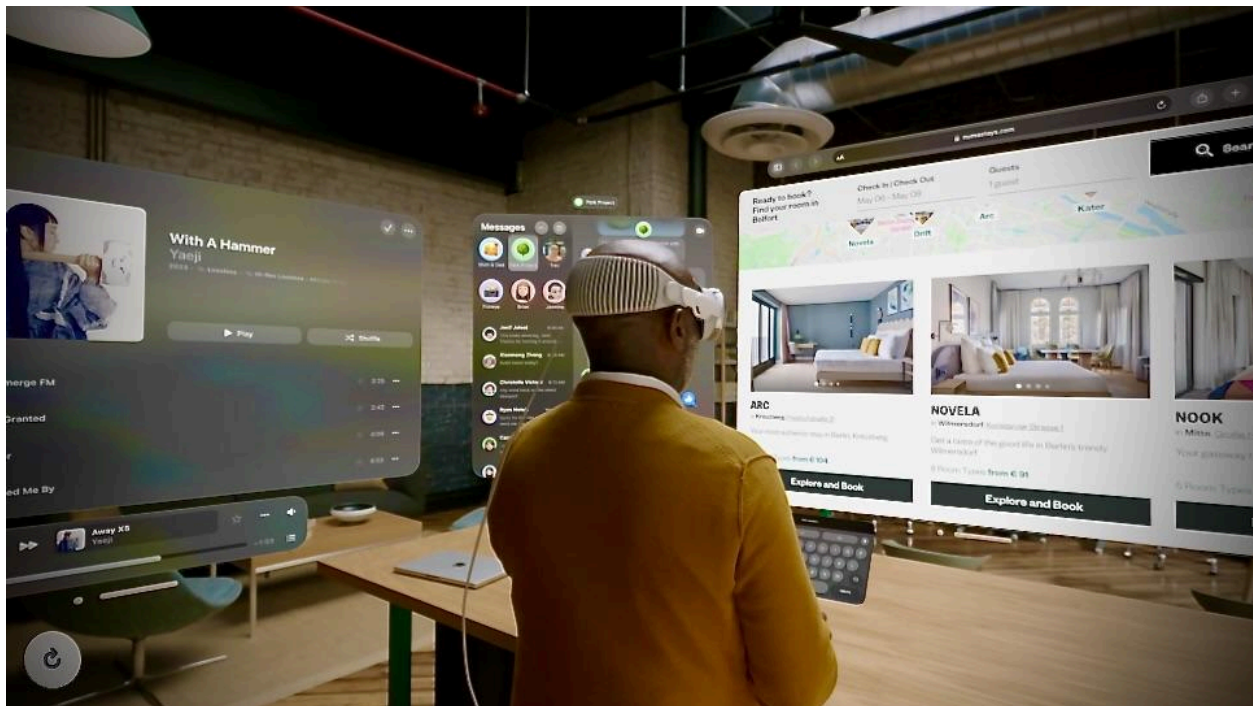
Display Resolution (Per-eye)	2160 x 3840
Display Type	Micro OLED
Refresh Rate	90Hz
Field of View	Smaller than the Quest 3's 110 degrees

Lenses	Pancake
Controllers	Hand gestures tracking and finger movements
RAM	16GB
Storage	Up to 1TB
Audio	Two Speakers with Spatial Audio

### Controls

The controls for the Vision Pro are one of its merits, forgoing the standard external controllers/joystick combination other headsets have employed in the past. Instead, it uses a new system of hand and finger tracking, reading different gestures in order to navigate around and interact with VR items. With eye tracking combined with the motion based controls, using the Vision Pro feels like you're on the cusp of a new age.

### The VR Experience



Enthusiasts enjoy the premium, “Apple-feel,” when they use it for work such as developing software thanks to the little luxuries like local dimming, face tracking, and easy integration with other Apple devices. There are some cool things you can do like experiencing spatial videos filmed on the new iPhone 15. It improved many features of current headsets. but beyond that any new experience is what you can make of it. You can have multiple screens up to multitask, like how basketball fans might stream simultaneous broadcasts live. Or you can use virtual tools, perhaps to set timers while cooking, or to create virtual elements to make chores like vacuuming a game. The possibilities are endless.

As it is still early days, the applications for use specifically with the Vision Pro are sparse, as it depends on whatever developers can continue to dream up. This is a hard concept to market due to its flexibility, as it relies on the creativity of the user in order to truly shine. Some people will do amazing things with it, while some people will just answer emails and watch YouTube.

Many reviews criticize how all they did was pull up a safari window to watch a YouTube video, which is cool, but loses appeal fast. While true, they neglect to emphasize just how much better the screen quality is with the Vision Pro compared to other headsets. The immersion factor is exponentially more potent with the extra clarity. But these criticisms bring us to the next section, the bad: Here are some of the top complaints.

### **The Bad**

1. While it was shown off as one of the main advantages of the Vision Pro, the EyeSight feature has been met with equal disapproval as it has praise. While some believe it to look great and solve the physical barrier issue, others see it as downright creepy in a weird uncanny valley type of manner. Personally, I think the blank eyes are definitely not Apple's best work, but it's a step in the right direction.
2. While the pass through has been a core element in the augmented reality approach for the Vision Pro, it has not delivered for every user. Some have complained that it is not nearly as good as Apple purported, getting blurry whenever one is moving around quickly. It is obvious you are looking through a screen, which somewhat hinders the immersive aspect.
3. One of the main issues with VR headsets is the lack of focus as one looks further away from the center of the field of view. The Vision Pro has not been immune from such complaints, particularly when looking at certain text/UI elements. The spatial reading helps by physically turning your head to follow text, but only using your eyes apparently can create some issues.
4. While the specs for the screen would indicate a top-tier visual performance, some users believe it simply doesn't hold up compared to a high quality TV or screen. Some also complain that the FOV is too small. However, this is in constant debate as some users are of the complete opposite opinion, believing their Vision Pro to have made their usual viewing setup obsolete.
5. A big issue that is often reported is the glare and reflections in the display. Users mention how they see such disturbances when watching movies or looking at any window with a high contrast, which is distracting and takes you out of the immersion. It seems to be encountered more often by those trying to use their headset in dark environments or by those who use corrective vision lenses.

6. **Screen Mirroring:** Many people were hoping to mainly use their headset with their Macbook, using airplay to screen-mirror. Unfortunately, the Vision Pro does not allow for multiple screens when mirroring your display. It also does not allow audio to play from the Vision Pro, so you need to use a separate audio device. It has also been reported to be buggy at times, with latency issues and disconnections. You also can't use the Vision Pro keyboard so you have to use the Mac's physical controls.

Overall, it seems to me that this was a product that was mismarketed to be broadly appealing despite not being for everyone. They chose to focus on the more "gimmicky" features while demoing the Vision Pro when those are not what brings out the full capabilities of the headset that warrant the massive price tag. As a result, many people were disappointed and felt there was no justification in spending so much money. While the above criticisms and issues may be a dealbreaker for some, many users weren't bothered enough to be deterred or found ways to manage. However, there are three factors that have had the biggest effect on people's decisions to purchase and may convince even the most hardcore Apple fan to wait for future iterations.

### **The Ugly**

1. **Price tag:** While shock and awe can be an effective maneuver, the Vision Pro's hefty price leaves most still in the shock category. According to their reports, it costs about \$1500 to build in terms of materials and labor, not including marketing, development, etc. As many people were expecting a price around the range of \$500 like the MetaQuest 3's, it makes sense the high price would turn most away. With a cost of \$3500 for the very first iteration, only the true enthusiasts and those with money to blow would still be interested.
2. **Cracked glass:** Recently, a more troubling issue has arisen for several vision pro users. Several users reported suddenly finding a mysterious crack on the glass screen, ranging from a small split on a side to a full, long line straight across the visor. There is no current explanation for this from Apple, but some people speculate that is due to the excess heat caused from charging the headset in its case, causing cracks from expansion. It is always a gamble to buy first generation technology, especially such an expensive and innovative one in this case. As no one can predict more, if any, future occurrences like this, it would seem to be a high priced gamble that not everyone can afford.
3. **Comfort:** If you're in pain while using it, you're probably not gonna use it. Unfortunately, the greatest sin of the Vision Pro lies in its comfort, or lack thereof. Users reported how it generally wasn't very comfortable to wear while standing or sitting, leading them to try using it while lying down or leaning their head back. People noted that its weight was heavier than expected, leading

to irritation or pain on the face and nose. The seal could be tricky to get right, in order to achieve comfort while preventing light leakage.

### The Competition:

It's hard to convince people to buy your headset when the next most well-known competitor is 1/7 the price, and still it's \$500. So which product is better? It really depends on what you're going for in terms of usage.



The Quest 3 is probably the better choice for gaming at the moment, as it boasts a much more powerful GPU than the Vision Pro. It features a Qualcomm Snapdragon XR2 Gen 2 SoC and a high refresh rate of 120Hz, as well as an LCD panel display offering a resolution of  $2064 \times 2208$  per eye. Compared to the Quest 2's, the 3 is slimmer and more refined. Like the Vision Pro, it includes hand tracking but also has controllers. It has PC compatibility which has been reportedly more smooth than the mac mirroring for the Vision Pro. The functional design of the Meta Quest 3 is also more comfortable than the Vision Pro, featuring a Y-shaped strap that extends over and behind the user's head, offering a secure fit. Users reported it to be more comfortable, lighter on the face, and better for prolonged use than the Vision Pro. Improving from its previous iterations by focusing on improved weight distribution, the Quest 3's place the center of gravity nearer to the face, offering a more stable fit.

The Vision Pro is absolutely the better visual experience for browsing photos and watching movies, but is it worth \$3000 more? That's for each user to decide for themselves, but generally speaking it would appear most people are divided on this issue. Still, you can see what Apple is trying to do here: Reinvent the computer system to something you can wear. It's like the first-generation personal computers, where before they were rolled out most would scoff at the idea of having one. You can see where they're

heading, and why this may very well be the end game: A lightweight, wearable computer that transforms your reality into whatever we can imagine.

In essence, the Apple Vision Pro is positioned as a luxury, high-end device offering advanced technology and features, ideal for users seeking the pinnacle of VR experiences and willing to invest in premium technology. The Meta Quest 3, on the other hand, is a more cost-effective option which focuses on delivering a quality VR gaming experience and broader VR applications.

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### **Bonus: For movie lovers**

If you're trying to get a VR headset purely for the immersive entertainment viewing aspect, here are a few choices recommended by the many people who have tried out the vision pro and quest 3.

1. Bigscreen Beyond:
  - Marketed as the world's smallest VR headset, featuring an exceptionally small form factor and lightweight design, weighing just 127 grams
  - Equipped with OLED microdisplays that offer a resolution of 2560 x 2560 pixels per eye
  - Custom pancake optics for a compact and efficient design
  - Supports SteamVR tracking for precise movement capture in virtual reality environments
  - For optimal comfort and fit, the Bigscreen Beyond is custom-built for each customer using a 3D Face Scan to tailor the headset to the unique shape and size of the user's face.
2. Pimax Crystal:
  - A high-end virtual reality headset that offers unparalleled visual quality and immersion for VR enthusiasts
  - Features a remarkable resolution of 5760×2880, providing an incredibly sharp and detailed VR experience
  - With a refresh rate of 120 Hz and aspheric lenses, it delivers smooth and vivid visuals, making it stand out with its unique design and expansive field of view
3. VITURE One:
  - Offers XR glasses that display a 120-inch 1080p virtual screen within a 3-meter distance
  - Designed to be lightweight and ergonomic, enabling 3-5 hours of continuous entertainment without causing fatigue.
4. The 4K Visor:
  - Still in development by Immersed, a virtual reality headset designed primarily for productivity
  - Features dual 4K micro OLED displays, providing an ultra-high resolution of 4K per eye
  - Lighter than a smartphone, supporting 5+ screens with a 100° field of view, hand & eye tracking, six degrees of freedom, ultra-widescreen, and an HD Color Passthrough