

Apple forced to make major cuts to Vision Pro headset production plans

Enlarge / This is Apple's Vision Pro headset. It looks a bit like a particularly bulky pair of ski goggles, with the materials and design language of Apple's AirPods Max headphones.

Samuel Axon

reader comments

77 with

Apple has been forced to make drastic cuts to production forecasts for the mixed-reality Vision Pro headset, unveiled last month after seven years in development and hailed as its most significant product launch since the iPhone.

The complexity of the headset design and difficulties in production are behind the scaling back of targets, while plans for a more affordable version of the device have had to be pushed back, according to multiple people with direct knowledge of the manufacturing process.

Apple has already flagged that the \$3,500 "spatial computing" headset device will not go on sale until "early next year," a lengthy gap from its June 5 launch. Analysts have interpreted this as being more to do with supply chain problems than allowing developers time to create apps for the Vision Pro.

Two people close to Apple and Luxshare, the Chinese contract manufacturer that will initially assemble the device, said it was preparing to make fewer than 400,000 units in 2024.

Multiple industry sources said Luxshare was currently Apple's only assembler of the device. Separately, two China-based sole suppliers of certain components for the Vision Pro said Apple was only asking them for enough for 130,000 to 150,000 units in the first year.

Both projections imply a significant cut to production from an earlier, internal sales target of 1 million units in the first 12 months. The forecasts for low volumes reflect Apple's lack of confidence in being able to scale production, according to analysts and industry experts, following years of missed deadlines in launching the device.

Wall Street analysts' forecasts for sales of the Vision Pro vary widely, from the low hundreds of thousands to several million in its first year. At the time of the headset's unveiling a month ago, Wedbush predicted Apple would ship around 150,000 units in the first year, while Morgan Stanley's estimate was around 850,000 and Goldman Sachs believed it could reach as many as 5 million shipments in 2024. In comparison, Apple sold 1.4 million iPhones in its first year on the market.

Advertisement

Apple, whose market valuation closed above \$3 trillion on Friday, three weeks after the announcement of the headset, declined to comment on the Vision Pro.

Luxshare did not respond to a request for comment.

Among the major hurdles being faced is the manufacturing of the sleek screens for the device. They consist of two micro-OLED displays—one per eye—and an outward-facing, curved “lenticular” lens. The inward displays offer a resolution exceeding anything currently on the market, while the outward lens projects the headset wearer's eyes to the outside world.

The micro-OLED displays for the prototypes in the June demonstration were supplied by Sony and the chipmaker TSMC,

according to two people familiar with the situation. Sony and TSMC declined to comment on any role in the Vision Pro.

Apple has been unhappy with suppliers' productivity, said those people, especially with the yield of micro-OLEDs that are free of defects. The displays are the most expensive component in the Vision Pro.

"A lot of this is normal growing pains," said Jay Goldberg, founder of tech consultancy D/D Advisors. "This is the most complex consumer device anyone has ever made."

Goldberg said the higher than expected \$3,500 price point already implied that Apple had baked in the cost of production inefficiencies, knowing that manufacturing yields were especially low compared with the mature products in Apple's portfolio.

"Someone has to pay for that," he added. "I think Apple went into this with a lot of 'bad yield' built into the model.

There is a lot of technology in the Vision Pro and they knew it would take a while to scale up. Apple knows they won't make money on this in the first year."

Advertisement

Sony was cautious about how much the mixed-reality headset market would expand and was reluctant to step up production significantly, said Terushi Shimizu, head of Sony's semiconductor unit, in a recent media roundtable.

"We will be watching to see how much demand [for micro-OLED displays] will increase," he said. "But I don't think we will be aggressive [in producing] in the same scale as image sensors," for which Sony is building a new plant to boost production for the chips used in smartphone cameras.

Meanwhile, Apple is already working on later generations of the headset, including a more affordable version that is expected to appeal more to mass-market consumers, said two people with direct knowledge.

Apple is working with Korean display makers Samsung and LG on this second-generation headset. In order to drive the price lower, the iPhone maker has explored using other display technologies, including mini-LED, but two people said Apple was insisting on using micro-OLED even for the non-Pro headset, even though all suppliers had so far failed to match its expectations.

The cut to 2024 forecasts has disappointed Luxshare, which has been gearing up its capacity to be able to build nearly 18 million units annually in the coming years, according to one person close to the assembler.

Analysts said the whole headset supply chain in Asia was not getting much of a boost from the Vision Pro. "Apple has not made a better product than the industry imagined ... the manufacturers' confidence is not high," said Eddie Han, an analyst at Taiwan-based Isaiah Research.

Despite the setbacks, market intelligence group Canalys believed Apple would surpass a user base of 20 million within five years of launch.

“Given the limited production numbers, it will be flying off the shelves, pre-ordered by Apple’s loyal fans and high net worth users in the US,” said Canalys analyst Jason Low. His projection was currently for Apple to produce 350,000 units next year, increasing to 12.6 million units five years later.

© 2023 The Financial Times Ltd. All rights reserved. Please do not copy and paste FT articles and redistribute by email or post to the web.

<https://arstechnica.com/?p=1951574>