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The Technical description of Apple AirPods Max Silver



(Hum3d...2021)

Figure 1: Apple AirPods Max silver via newsroom

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Background information about Apple company:

Apple company is the world biggest multinational corporate company that creates electronics and softwares that are widely used. Apple was founded on April 1, 1976 by Steve Jobs and Steve Wozniak in their garage in Paulo Alto, California. The Apple company logo was drew by Ronald Wayne and he wrote the first Apple I user manual. One year after its inception, Apple Inc. received the first investment of \$92,000. Success granted and right after that Apple II was launched, along with its monitor, open architecture and colorful graphics. (Marshall...2012). Apple II was very successful that it didn't take for Apple III to be launched. Apple III, was lurched in 1980 in collaboration with IBM. Steve Jobs who worked so hard for this to pull off became increasingly convinced that the future belonged to computer friendly graphical user interfaces, so in 1983, he launched the Apple Lisa, the first personal computer with a graphical interface. In 2001, the first Apple Store was opened in California and Virginia, Mac ox was launched, the portable iPod was introduced to the market and no later than that in 2003, iTunes took the market by storm. In 2007, Apple launched the most profitable product in it's history iPhone. Apple Inc...2008). In 2013, first Apple Watch was launched and no later than that Apple Inc launched many profitable products like headphone, AirPods, iPads, home pods, AirTags, and MacBooks. Apple Inc is known for it's products in the world and Apple Inc business is growing day by day. (Wikipedia....2021)



Figure 2: Apple products (Apple Inc...2022)

Historical Invention About AirPods:

After successfully creating amazing products, in 2016, Apple Inc introduced AirPods. They were the first pair of truly wireless headphones with no wire connecting the two. After few hating comments in the beginning, Apple Inc AirPods took the market by storm as they became runway success and have been

updated with new versions and softwares. Apple Inc AirPods became a well known product in countries around the world. As they were easier to use and without any wiring issues, at first people hated it but later they are being used everywhere by people. For decades, people had to deal with tangled headphones, frayed headphones, plugging and unplugging, annoying cords and even the wires were limited to use from a certain distance. People simply seemed to love these wireless AirPods and became the most in-demand headphones in the world.

The first generation AirPods were quite different than the AirPods Max silver. Although there are similarities as well. Both the first generation AirPods and AirPods Max silver are wireless and have great range of Bluetooth connectivity and have voice cancellation microphones setup into it. Comparing to AirPods first generation, AirPods max silver are much noise cancelling and have a better audio quality too.



Apple AirPods first generation, September 7, 2016 (Apple Inc...2016)

Figure 3: first generation Apple AirPods

About AirPods Max silver:

Apple Inc AirPods Max Silver are a perfect balance of exhilarating high quality audio wireless headsets. After successfully selling AirPods Pro 1st and 2nd generation, in 2019 Apple Inc introduced AirPods Max silver which were more refined and higher quality than the regular AirPods. One of the many features of the AirPods Max Silver is that they are created in a way that they can fit different head shapes without interrupting the sound quality. It gives full sound proof experience with soft buds that can be worn for longer period of time without hurting ears. These particular AirPods Max Silver comes in different colors too but

the Silver is the most aesthetic and most selling among all the other colors. It has variation of blue, space grey, red and green. (Apple Inc...2022).

PARTS OF AIRPODS MAX SILVER:

The AirPods Max silver is composed of these different parts,

- Stainless steel frame
- Canopy
- Telescoping arms
- Beautifully anodized aluminum cups
- Custom designed mesh textile
- Ear cushions
- Digital Crown
- Smart Case

The outer part of the AirPods is made up of the steel frame with soft mesh textile material that gives it more strength. The ear pieces are protected by ear cushions that gives the comfort to wear the AirPods for longer period of time. The outer part of the ear piece are anodized aluminum cups that gives the extra finish and finesse to the look. Also these aluminum cups protect the inner ear cushions if fall. The Digital Crown gives the strength to the whole headset as It is easily bendable and can be easily adjusted to specific head shape. These AirPods Max comes with a Smart Case as well that protects them if it falls. (Apple Inc..2022)

The **canopy** surrounding the headband is made of knit mesh, that provides strength to reduce on head pressure

The **stainless steel frame** is wrapped with soft material that makes it easily bendable and provides flexibility to the headset.

The **telescoping arms** smoothly extends and are strengthened to fit and seal.

AppleInc...2021

Figure 1: Apple AirPods Max silver details.

The **Anodized aluminum cups** features an extraordinary mechanism that allows each ear cup to rotate freely and to provide strength.

The **soft ear cushions** are custom designed mesh textile which gives soft and feathery feature to the earpiece, that's why they are very comfortable even when worn for longer period of times. It's almost like a cushion or pillow type of material.



(<u>Apple Inc...2022</u>)

Figure 2: Apple AirPods Max silver ear cushion details.

How AirPods Max silver used?

As much the design of these Apple AirPods Max is simple and beautiful there using technique is quite simple too. These are noice cancelling headphones with transparency mode, it is made of eight microphones that act as active noise cancelling microphones. Just connect it to any drive via Bluetooth and boom they are activated. The dietitian crown button plays an impressive role in it's usage as it can be used to turn volume up and down or by pressing any incoming calls can be answered. Press and hold this button for Siri. This button can also be used to switch between active noise cancellation mode as well as transparency mode. (Apple...2020)

How AirPods Max silver works:

(Newsroom...2021)

Figure 3: mechanics of Apple AirPods Max silver via newsroom.

AirPods Mac silver features a 40 mm dynamic designed mechanism the provides rich, deep, accurate, clear and high sound and long length extensions too. Inside the anodized aluminum frame is a unique dual neodymium ring magnet that maintains the harmonic motion and is attached to H1 chip in each piece. Next to these chips are software cord that provides the high quality sound experience. A computational audio power is set that provides adaptive EQ, active noise cancellation mode and transparency mode with special audio.

CONCLUSION:

In conclusion, Apple AirPods Max silver, proved to be one of the most used products worldwide. AirPods Max silver have up to 20 hours of battery life with nonstop use also being noice cancelling. The Smart Case also works as a battery saver as it puts the AirPods to ultra low power state. These can be charged using a lightening connector. Each part of the headsets work coherently to produce clear and high sound with low harmonic distortion. With H1 chip, the microphones uses computational audio. Most importantly AirPods Max are wireless and can be used on any device comfortably. These AirPods Max have neodymium ring magnet that gives them the distortion less playback sound. Apple Inc company worked really hard in the past and now it's products are taking the market by storm. In general, one cannot put headphones for longer period of time as they starts hurting but

Apple Inc made AirPods Max in a way that they are comfortable to use even if used for longer period of time. It's broad range of color variations makes it more unique and aesthetic.

REFERENCES:

- AirPods Max. (n.d.). Retrieved from https://www.apple.com/airpods-max/
- AirPods Max. (n.d.). Retrieved from https://www.apple.com/airpods-max/
- Apple introduces AirPods Max, the magic of AirPods in a stunning over-ear design.
 (2020, December 8). Retrieved from https://www.apple.com/newsroom/2020/12/apple-introduces-airpods-max-the-magic-of-airpods-in-a-stunning-over-ear-design/
 - Retrieved from https://d1wqtxts1xzle7.cloudfront.net/49560432/caso_Apple-libre.pdf?

 1476331054=&response-content-disposition=inline%3B+filename

 %3DCaso_Apple.pdf&Expires=1680191908&Signature=Bc26c6DxlrDWYlnXNFGPm

 qzYbzGyB9n5ahbQ4Xtct5pXtCkTQgGEBncDDy8eduW49ptsfb4G
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 QgP0pPjNnd1MPRIOANEjYxWlxCDwDVaj3auan67Ai5gUZ3uhHODrM~t0Q__&KeyPair-Id=APKAJLOHF5GGSLRBV4ZA
- AirPods Max. (n.d.). Retrieved from https://www.apple.com/airpods-max/

Apple introduces AirPods Max, the magic of AirPods in a stunning over-ear design.
 (2020, December 8). Retrieved from https://www.apple.com/newsroom/2020/12/apple-introduces-airpods-max-the-magic-of-airpods-in-a-stunning-over-ear-design/