

Samsung's latest smartphone launch, the Galaxy S25, is the South Korean tech company's latest attempt to win the mobile AI war. Here's how the entry-level model compares against Apple's iPhone 16.

On January 22, Samsung launched an update to its flagship smartphone line. The Samsung Galaxy S25, along with the Galaxy S25+ and Galaxy S25 Ultra, are set to become the biggest smartphones on Android, and possibly in AI.

During the Samsung Galaxy Unpacked event, Samsung promoted its smartphones as a way for anyone to quickly use AI while on the move. Promises were made of natural contextaware mobile experiences, an intuitive interface, and high performance.

With Apple Intelligence being Cupertino's big push, the Galaxy S25 represents the iPhone 16's biggest rival.

Checking out the specifications lists of each, it should be a close fight.

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#### iPhone 16 vs Samsung Galaxy S25 - Specifications

Specifications	iPhone 16	Samsung Galaxy S25
Price (starting)	\$799	\$799.99
	Best iPhone 16 prices	Deals available at Samsung
Dimensions (inches)	5.81 x 2.82 x 0.31	5.78 x 2.78 x 0.28
Weight (ounces)	6	5.7
Processor	A18 5-core <u>GPU</u>	Qualcomm Snapdragon 8 Elite for Galaxy Adreno 830 GPU



Specifications	iPhone 16	Samsung Galaxy S25
Storage	128GB, 256GB, 512GB	128GB, 256GB, 512GB
Display type	6.1-inch Super Retina XDR	6.2-inch FHD+ Dynamic AMOLED 2X Display
Resolution	2,556 x 1,179 at 460ppi	2,340 x 1,080 at 416ppi
Biometrics	Face ID	Under-display fingerprint, Face recognition
Connectivity	5G (Sub-6GHz and mmWave), Gigabit-class LTE, Wi-Fi 7, Bluetooth 5.3, Second-gen Ultra Wideband NFC Emergency SOS via Satellite, Roadside Assistance via Satellite, USB-C (USB 2), Thread support	5G (Sub-6GHz and mmWave), LTE, Wi-Fi 7, Bluetooth 5.4, NFC, USB-C (USB 3.2)
Rear <u>Cameras</u>	48MP Fusion, 12MP Ultra Wide with Macro	50MP Wide, 12MP Ultra Wide 10MP Telephoto, 3x Optical Zoom
Video	4K 60fps, 4K 60fps HDR with Dolby Vision, 1080p 240fps Slo-Mo, Cinematic Mode, Spatial Video, Macro Video, Sensor-shift optical image stabilization, Action Mode	8K 30fps, 4K 60fps, 1080p 240fps, 10-bit HDR, HDR10+ Gyro-EIS
Front Camera	12MP TrueDepth, Autofocus	12MP
Battery Size	Up to 22 hours of video playback	4,000mAh
Colors	Black, White, Teal, Pink, Ultramarine	Navy, Icy Blue, SIlver Shadow, Mint Blue Black, Coral Red, Pink Gold

### iPhone 16 vs Samsung Galaxy S25 - Physical



#### **Dimensions**

The 2024 iPhone 16 launched in a fairly familiar form to consumers, measuring 5.81 inches long and 2.82 inches wide. Unusually for Apple, it's a different size to the Pro counterpart, with the standard version being a bit shorter but wider.

The Galaxy S25's base model is not that far off the iPhone's dimensions, with it being slightly smaller overall. It's 5.78 inches long, 2.78 inches wide.

When it comes to thickness, the iPhone loses out to the Samsung, at 0.31 inches to 0.28 inches.



iPhone 16 vs Samsung Galaxy S25: Side views of the Galaxy S25 - Image Credit: Samsung

Both smartphones have a broadly similar exterior appearance, with an edge-to-edge display, flat sides, and rounded corners on an aluminum frame. At the front, the key difference is at the top, with the Galaxy S25 using a punch-hole camera at the top, while Apple uses the Dynamic Island to hide its TrueDepth camera.

On the sides, Apple has more visible buttons, including volume controls, one to wake the iPhone, the Action Button, and the latest addition, Camera Control.

Samsung has gone for a more relaxed selection, with one side having volume controls and a



side button while the other side is bare.

Around the back is a more obvious difference. Apple has two rear cameras in a corner bump, while Samsung includes three separate lens protrusions.

#### iPhone 16 vs Samsung Galaxy S25 - Display

When it comes to the display, it's expected that Samsung should have a considerable advantage over the iPhone, simply because it's involved in the supply chain. It certainly plays to that advantage here.

The iPhone sports a 6.1-inch Super Retina XDR display, an all-screen OLED panel capable of displaying HDR content. It has a resolution of 2,556 by 1,179, giving it a pixel density of 460 pixels per inch.

The Galaxy S29 has a larger 6.2-inch Dynamic AMOLED 2X display, which has a resolution of 2,340 by 1,080 pixels, marginally lower than the iPhone. This drags the pixel density down to 416ppi, which is still perfectly acceptable for a smartphone.

Apple's display has TrueTone support, and covers the Wide Color (P3) gamut. Samsung offers what it refers to as an "Adaptive Color Tone."



iPhone 16 vs Samsung Galaxy S25: Samsung opts for a small hole punch camera – Image Credit: Samsung

What Samsung does win at is refresh rate, with the Galaxy S25 having a SuperSmooth



120Hz refresh rate that can go down to just 1Hz. While this is comparable to ProMotion in the iPhone 16 Pro, the iPhone 16 is limited to just 60Hz.

In terms of contrast, the iPhone 16 has a contrast ratio of 2 million to one. Brightness maximums vary between 1,000 nits for typical content, 1,600 nits at a peak for HDR content, and 2,000 nits for peak brightness when used outdoors.

Samsung hasn't revealed the contrast ratio for the Galaxy S25, but it can manage a maximum brightness of 2,600 nits at peak. This is considerably brighter for outdoor use than the iPhone, though it's questionable as to whether that's enough of an advantage versus resolution.

#### iPhone 16 vs Samsung Galaxy S25 - Cameras

One area Samsung has a considerable advantage with the Galaxy S25 are the cameras. That all starts with quantity, with Samsung simply putting more on its device.

The rear of the Galaxy S25 has three cameras, starting off with a 50-megapixel Wide camera, with an f/1.8 aperture and OIS. It also has a 10-megapixel Telephoto camera, an f/2.4 shooter with a 3x optical zoom and OIS, and a 12MP F/2.2 Ultra-Wide camera with a 120-degree field of view.

Apple's counter to this pairing is its 48MP Fusion camera with an f/1.6 aperture and a sensor-shift optical image stabilization system. It also has a 12MP Ultra Wide sensor with an f/2.2 aperture and a 120-degree field of view.





iPhone 16 vs Samsung Galaxy S25: Three cameras on the Galaxy S25 - Image Credit: Samsung

While Apple has fewer physical cameras on the back, it does attempt to compete with a virtual 12MP Telephoto camera. In reality, it's a crop of the 48MP Fusion camera that results in a 2x magnification, which Apple can claim is technically an optical zoom, not digital.

Around the front of the Galaxy S25 is a 12-megapixel camera with an f/2.2 aperture and an 80-degree field of view. Apple's answer to this is the 12MP TrueDepth array with an f/1.9 aperture.

When it comes to video, Apple offers users 4K Dolby Vision recording at 60fps, 1080p Slo-Mo at 240fps, a 6x digital zoom, Spatial video recording at 1080p, and various cinematic recording options. Computational photography is still a big thing, improving the image of not just photos but video too.

Samsung's counter is to simply record more pixels. The rear camera, capable of HDR10+ video, supplements its 4K60 recording with 8K30 video. Slo-Mo at 1080p is also offered at 240fps.

With the exception of the better video, a lot of deciding which camera system is the best will be subjective, with computational adjustments also playing a major part.

## iPhone 16 vs Samsung Galaxy S25 - Processing and Performance

When it comes to how the smartphones work, a lot of it will come down to the chipset driving the experience.

In one corner, Apple's self-designed A18 chip is extremely capable, thanks to its six-core CPU with two performance cores and four efficiency cores. There's also a 5-core GPU of Apple's own design, and the Neural Engine for handling machine learning-based tasks.

In the Galaxy S25, Samsung has gone for the Snapdragon 8 Elite Mobile Platform for Galaxy. As the name implies, it's a version of Qualcomm's Snapdragon 8 Elite Mobile Platform, tweaked and customized for Samsung.

It's an octa-core CPU using two high-performance cores and six other lower-speed cores. It's supported by the Hexagon NPU for handling AI workloads, and the Adreno GPU capable of ray tracing and with Vulkan Engine support.

Samsung's also using vapor chamber cooling on its system-on-chip. It's a thermal management technique that Apple has been rumored to be looking into, with the potential



to keep chips running for longer without throttling.

While we won't know exactly how fast Samsung's chipset will be, we can at least compare the Snapdragon 8 Elite used in other devices with Apple's A18. We could use the Asus ROG Phone 9 Pro as an example here.

Searches for Geekbench results for the Asus smartphone indicate it can reach single-core scores of around 2,000, and multi-core scores around 8,030. The current iPhone 16 Geekbench score for the iPhone 16 lists the single-core test at 3,309 and the multi-core at 8,137.

We could reasonably assume Samsung's Galaxy S25 will be in the same ballpark, chipset tweaks aside. Theoretically, this means the iPhone should still win out when it comes to single-core tasks, as used for everyday app usage, while things level out for multi-core apps.

Speaking of performance, Samsung did a lot to play up the Galaxy S25's AI capabilities. This chiefly is a Google <u>Gemini</u> affair, providing everything from text interpretation, context-aware suggestions, and "Circle to Search" to writing and drawing assistance and the "Personal Data Engine" for personalized AI features using on-device data analysis.

Samsung even breaks out the impressive-sounding "post-quantum cryptography," which Apple has experience with too.

While Apple does have Apple Intelligence, it's a bit hard to compete against Google Gemini at this time. Apple is slowly rolling out its various elements of Apple Intelligence, with Siri yet to be made much smarter, aside from handing some queries over to ChatGPT.

For the moment, Apple is catching up when it comes to AI, and that's a problem.

#### iPhone 16 vs Samsung Galaxy S25 - Connectivity

When it comes to connectivity, it's safe to say that it's a level playing field. It's in the minor points where there are differences.

Both smartphones have 5G connectivity over mmWave and sub-6GHz bands, with LTE as a backup. Wi-Fi 7 support is also equal, though Samsung does pull ahead with Bluetooth 5.4 versus 5.3.

NFC and USB-C connectivity is also offered by both, but again Samsung's physical connection is the faster USB 3.2 versus the sluggish USB 2 speed on the iPhone.

Apple does pull ahead with the extra connectivity options, though. This includes Thread support for smart homes, second-gen Ultra Wideband, and services like Emergency SOS via Satellite.



#### iPhone 16 vs Samsung Galaxy S25 - Power and Battery

Officially, Apple doesn't reveal the capacity of the battery inside the iPhone 16 as a quantifiable figure, but instead by what you can do with it. This includes up to 22 hours of video playback, up to 18 hours if streamed, and up to 80 hours of audio playback.

Samsung instead says its battery is 4,000mAh. Based on detailed teardowns and analysis, we know it's got a bigger capacity than the iPhone 16's 3,561mAh volume.



iPhone 16 vs Samsung Galaxy S25: For of Samsung's new launches – Image Credit: Samsung

It's safe to believe the Galaxy S25 will offer all-day battery life. As for what exactly that translates to in real-world usage, it's too early to tell.

When it comes to charging, both iPhone and Galaxy have fast-charging capabilities, getting 50% of battery life from a 30-minute USB-C charge.

Wireless charging is offered on both, with the iPhone using MagSafe at up to 25W. Samsung also does wireless charging at a slower 15W under Qi2.

However, its Wireless PowerShare feature means the Galaxy S5 can be used to wirelessly



charge another device, something the iPhone doesn't offer.

#### iPhone 16 vs Samsung Galaxy S25 - Other Features

When it comes to biometric security, Apple relies on Face ID, the 3D depth-mapping system that can scan the user's face. Samsung also offers facial recognition, but it largely relies on an under-display fingerprint reader.

Both devices are rated to IP68 levels of dust and water resistance.

# iPhone 16 vs Samsung Galaxy S25 - Capacity, Color, and Pricing

The iPhone 16 is available in a choice of five colors: Black, White, Teal, Pink, and Ultramarine. It starts from \$799 for 128GB of storage, with 256GB and 512GB options available for \$899 and \$1,099 respectively.

Samsung offers the Galaxy S25 in four main colors: Navy, Icy Blue, Silver Shadow, and Mint. Other colors are available in certain exclusive sale cases, including Blue Black, Coral Red, and Pink Gold.

Pricing starts from \$799.99 with 128GB of storage, with the 256GB option at \$859.99, and a 512GB capacity also available outside the United States.

#### iPhone 16 vs Samsung Galaxy S25 - Which to buy?

Samsung's latest effort, arriving months after Apple's most-recent iPhone launch, follows the rest of the industry in focusing heavily on AI. It's a very hot topic, and it makes sense for Samsung to do so.

It also has the major advantage of leaning on Google Gemini for the heavy lifting. That, and Google's relative lead over Apple Intelligence that has a glacial roll-out schedule.

If we put aside the whole AI-promotion thing and look at just the specifications, it becomes a considerably closer match overall.

Yes, Samsung has a customized Qualcomm chipset, but it seems like it'll be in the same ballpark as the iPhone 16 when it comes to multi-core performance.





iPhone 16 vs Samsung Galaxy S25: the back of the Galaxy S25 - Image Credit: Samsung

Samsung also has three cameras on the rear, which is more than Apple's two. This is an advantage, but considering Apple's crop-based "telephoto camera" is similar in spec to the separate sensor of the S25's telephoto, it's not as big as you would think.

The displays are also pretty close, spec-wise. Apple's is higher resolution and more pixel-dense, but either would be acceptable for end users.

What we ultimately have here are two very comparable smartphones from two bitter rivals, that offer consumers pretty much the same thing. Broadly speaking, of course.

To the average user, the iPhone 16 and the Galaxy S25 are great entry-level smartphones in their generations.

But, for the moment at least, Apple's going to find it hard to compete against Samsung's AI bluster.

### Where to buy the iPhone 16 and Samsung Galaxy S25

The Samsung S25 can be ordered at Samsung directly, along with Best Buy and Amazon, with incentives at press time delivering competitive trade-in values and device discounts.



Apple's iPhone 16 is also eligible for incentives at wireless carriers, with bill credits of up to \$1,000 off, using today's best iPhone deals.

You can jump straight to the offers at Verizon and AT&T Wireless.