

Mobile Processor



| Exynos 2100

# Mobile redefined

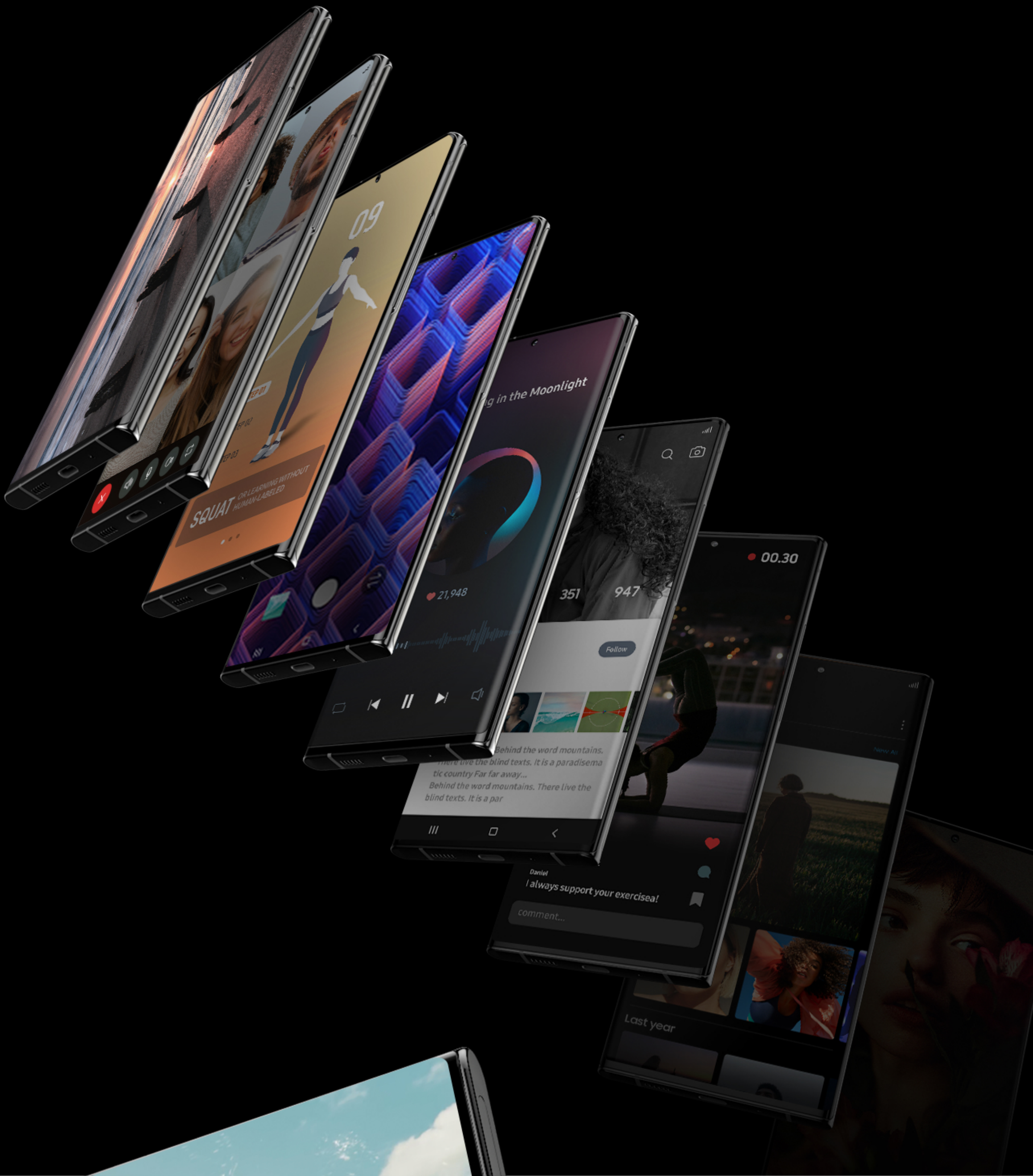
This is it. Heightening performance, power efficiency, camera functions and AI capabilities, the Exynos 2100 5G mobile processor sets a new standard for premium mobile experiences.

**SAMSUNG**



# Power, power and more power

The most powerful chip we've ever created. The Exynos 2100 delivers ultimate and optimal performance with eight CPUs built on tri-cluster architecture. With a powerful Cortex®-X1 CPU, the processor improves single-core performance by up to 19 percent and multi-core performance by up to 33 percent<sup>1</sup>, allowing faster loading and seamless multitasking.



LEAGUE OF LEGENDS: WILD RIFT is a trademark of Riot Games, Inc.

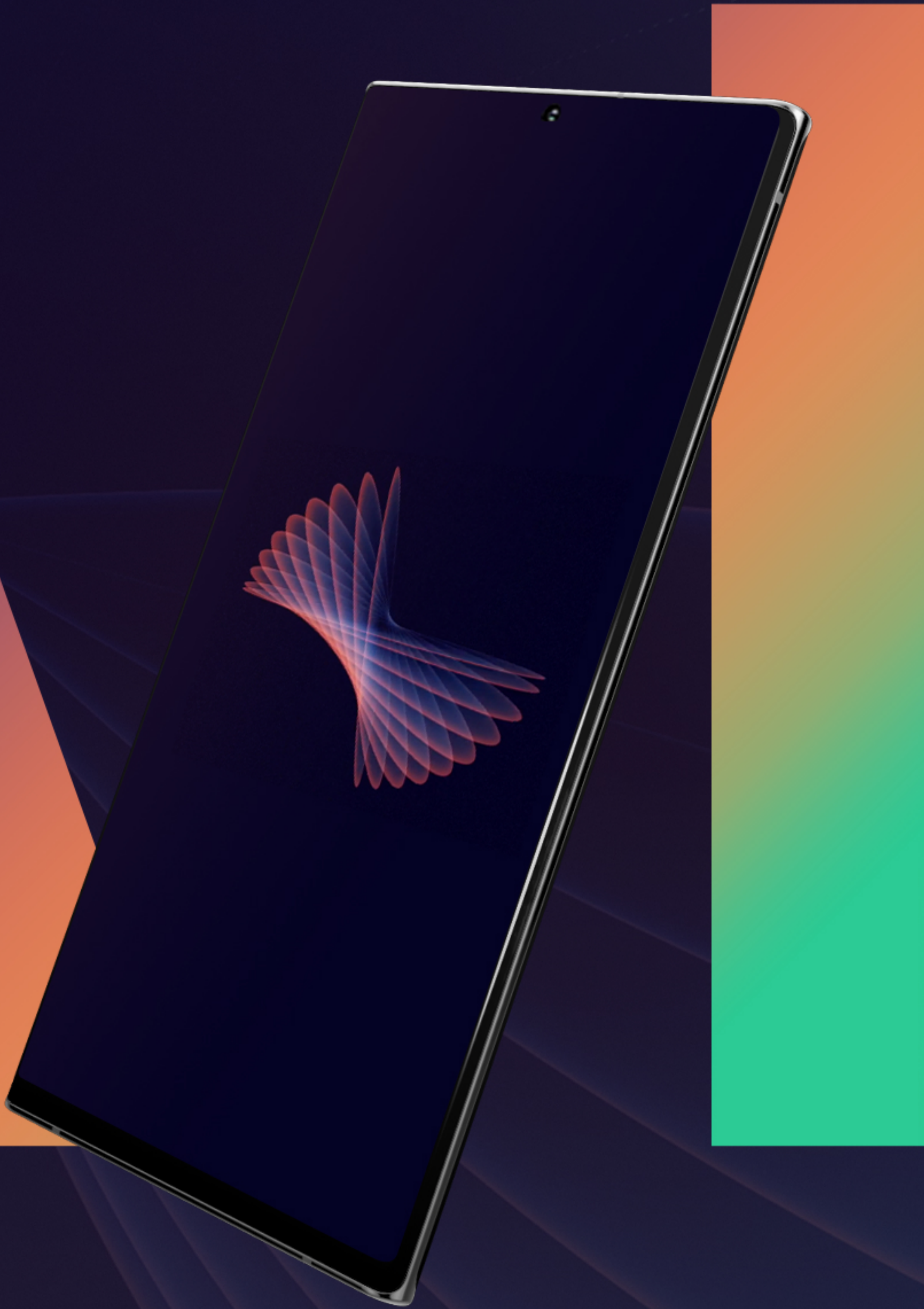
# Tailored to gamers

Designed for gamers who never stop gaming. The Mali™ -G78 GPU offers sustained performance improvements of up to 46 percent<sup>1</sup>, while its diverse graphics processing technologies facilitate high-quality gaming and mixed reality experiences. Meanwhile, The new AMIGO technology delivers stable frame rates, offering you an edge over the competition.



# Intelligence got smarter

Twenty-six trillion operations per second. The Exynos 2100's new AI engine harnesses its powerful triple-core NPU to offer up to 26 TOPS,<sup>2</sup> resulting in high-level AI performance. With a lossless compressor for lower bandwidth, the processor provides the powerful intelligence that smartphones need to create whole new experiences.



# 5G inside

Crafted design for 5G integration. The Exynos 2100 also includes a 5G modem with carrier aggregation technology that empowers new applications such as cloud gaming and delivers download speeds of up to 7.35Gbps.<sup>3</sup> Whether you are downloading, uploading or streaming, enjoy hyper-fast speeds with 5G connectivity.





## Much more. Much longer.

Do it longer with less recharge. With the Exynos 2100 built on 5nm process geared towards boosting power efficiency, your device is able to stay reliable for longer. With the processor's CPU, GPU, and NPU all designed with efficiency in mind, the processor seeks to make worrying about battery life a thing of the past.

## When AI meets camera

The AI engine not only automatically identifies your subject, but harnesses an image signal processor to tweak image quality settings and create the best photo possible. With support for up to six cameras and 200 Mp resolution, the processor enables cameras to capture a very high standard of detail and additionally facilitates smoother zooming.



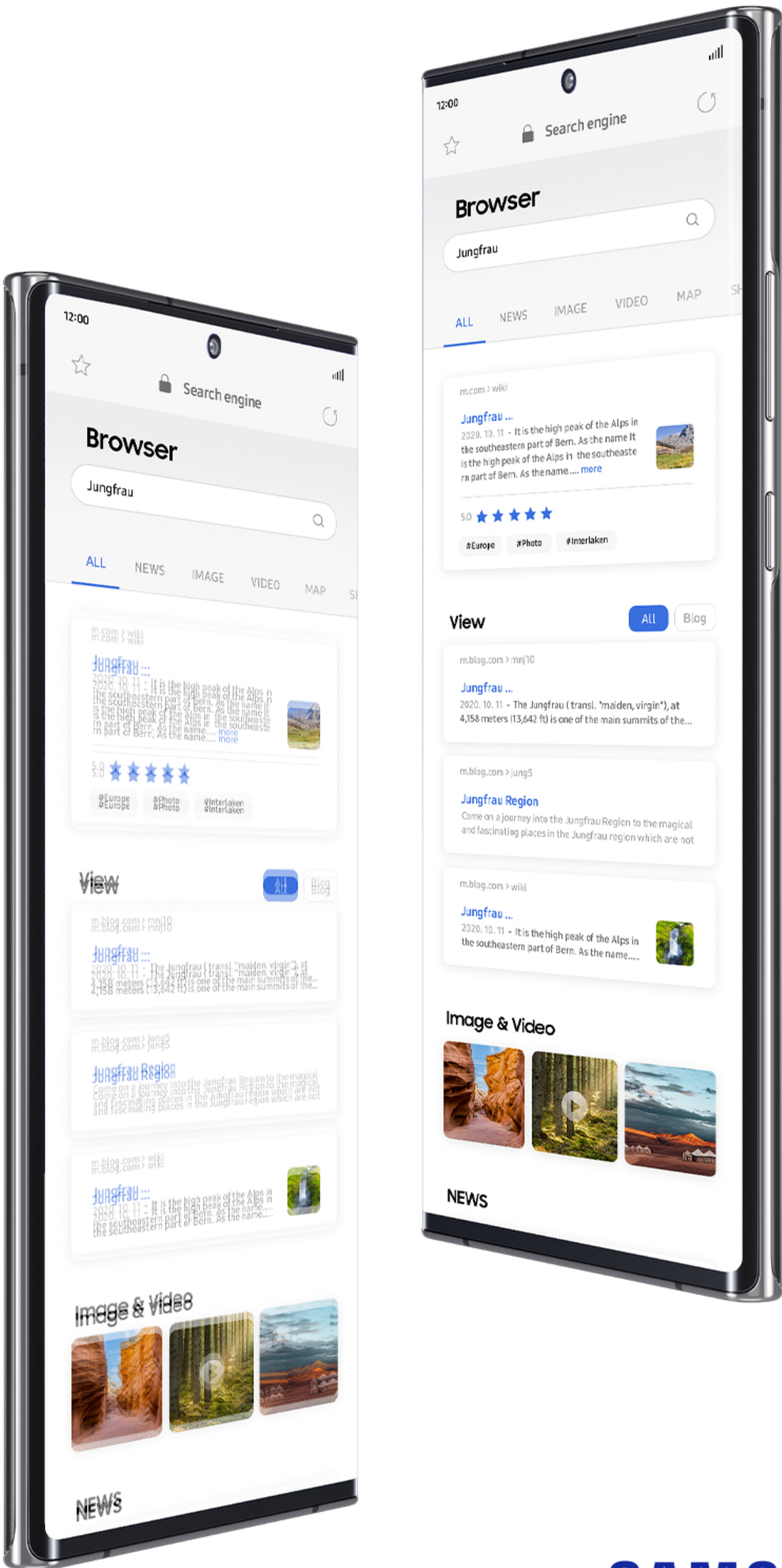


# Be a filmmaker everyday

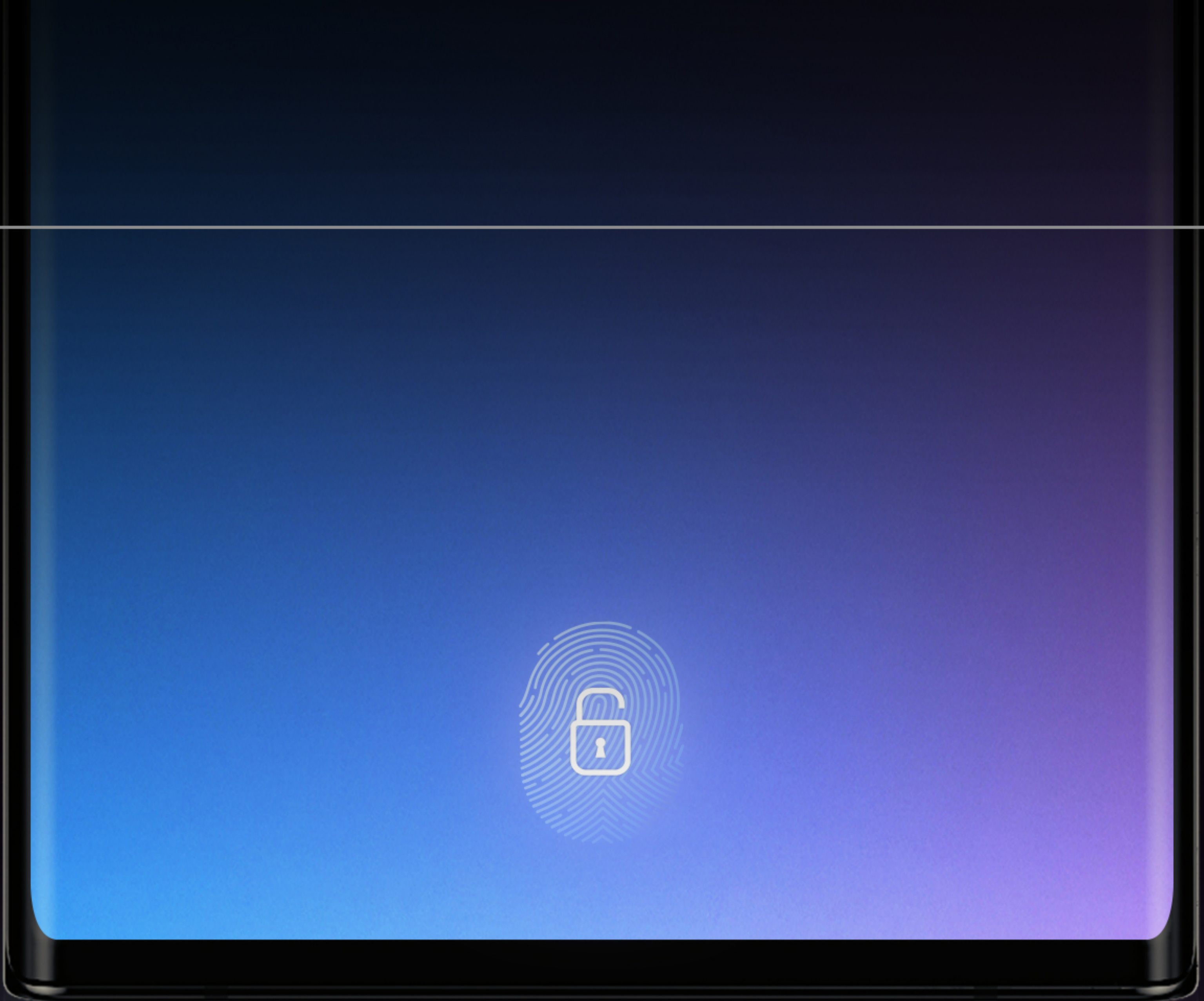
Film your story with epic videos. With powerful multi-format codec (MFC) and advanced camera system, the Exynos 2100 enables video recording and playback at 8K resolution. The processor also supports HDR10+ codecs for highly vivid color with enhanced dynamic range.

# Redefined screen

Enjoy visuals that are bound to delight. For users who experience display refresh rates of up to 144 Hz, the word 'scrolling' will come to mean something else altogether. The processor supports HDR10+ displays with up to 4K resolution and also enables 8K TV-out so that you can watch 8K video that has been shot on smartphones in more detail.





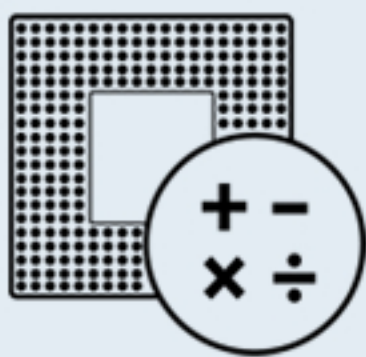


# Privacy is all

Get safety of mind when it comes to your device. For comprehensive privacy on your phone, the Exynos 2100 reinforced security solutions. With a memory protection unit, the processor’s embedded secure element (eSE) separates personal data from the OS environment and enables more secure processing that is also faster and more reliable.

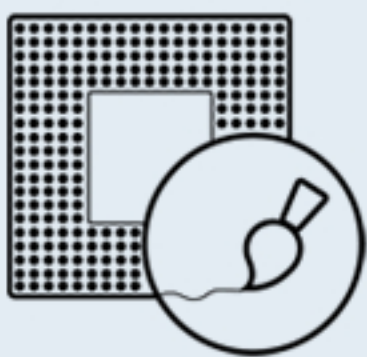


# Specifications




### CPU

2.9GHz Single-core (Cortex®-X1) +  
2.8GHz Triple-core (Cortex®-A78) +  
2.2GHz Quad-core (Cortex®-A55)




### GPU

Mali™-G78 MP14




### AI

AI Engine with Triple-core NPU  
and DSP




### Modem

5G NR Sub-6GHz 5.1Gbps (DL) /  
1.92 Gbps (UL)  
5G NR mmWave 7.35Gbps (DL) /  
3.67 Gbps (UL)  
LTE Cat.24 8CA 3Gbps (DL) /  
Cat.22 4CA 422Mbps (UL)



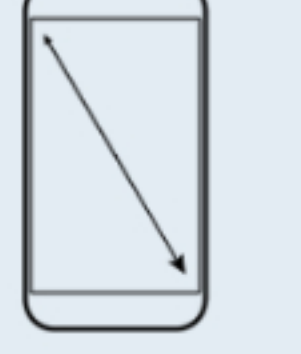
### Camera

Single-camera Up to 200MP,  
Dual-camera 32MP+32MP




### Video

Up to 8K decoding: 60fps with  
10-bit HEVC(H.265), 30fps with  
10-bit VP9, AV1  
Up to 8K encoding: 30fps with  
10-bit HEVC(H.265), VP9




### Display

4K/WQUXGA @120Hz  
QHD+ @144Hz



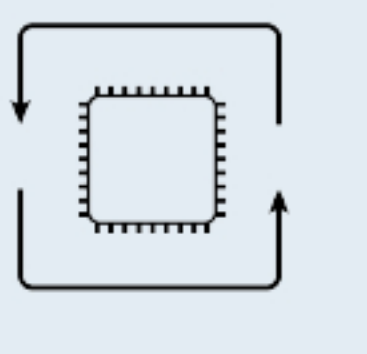
### Memory

LPDDR5



### Storage

UFS v3.1



### Process

5nm

1) Based on Samsung's internal test results compared to the Exynos 990 processor.  
2) Based on Samsung's internal test results.  
3) Based on Samsung's internal test results. Actual performance may vary depending on device and user environment.

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