

# Samsung Galaxy M31 review: 'smashing' money into battery

Galaxy A51 version 'looks reduced' but unmatched in durability!

I still remember one brother's remark: *"When smartphones are placed next to each other in a store, users do not have long-term experience, what makes the difference are the numbers in the specs sheet. - the bigger the number, the better. "*

And this is probably the tactic of Samsung in 2020. In the high-end segment, Galaxy S20 Ultra pushes the limit with a 108MP image sensor, 120Hz screen, 12 / 16GB RAM. Located in the mid-range segment, with a price of only 1/5 of the S20 Ultra, **Galaxy M31** also 'hits' shoppers with three parameters: 4 cameras, 64MP main sensor and up to 6000mAh battery.

*But surely many people already know, 'big numbers' and 'good experiences' are not always proportional to each other. So in the case of the Galaxy M31, how many 'big numbers' become useful for everyday use?*



Unlike the Galaxy A series that are being focused on the exterior design, the M series has more 'minimalist' designs. The whole body is also made of plastic, but there is only one color and there are no shiny 3D Glasstic decorative motifs.



On this back we find a capacitive fingerprint sensor instead of the type placed under the screen of the new Galaxy A series. This type of sensor has an advantage that is very fast reading speed, almost touching, we have opened the machine to use; On the contrary, there is a small disadvantage is that it is set a bit high, every time you open the device, you have to 'touch' to touch it lightly.



We will quickly come to the feature advertised so much is the camera system. Galaxy M31 has a total of 4 rear cameras, including a high-resolution main camera 64MP f / 1.8 (capable of combining pixels to create 16MP images), super wide-angle 8MP f / 2.2, 5MP depth sensor and a New camera compared to M30s specializing in macro photography, was present in two products Galaxy A 2020 and A51 A71.



16MP photo (left) and 64MP high resolution (right)

Is 64MP photos in focus? The answer is noticeably sharper than a typical 16MP photo! As the example above you can see, the text, music notes in the book are much clearer in the 64MP image, while in normal shooting mode phenomenon blur, loss of detail.



The quality of 64MP image processing on Galaxy M31 is much worse than 16MP photos!

The problem arises when we take pictures with 'not ideal' light! It seems that the image processing capabilities of the Galaxy M31 is not enough to meet the 64MP sensor, so when switching to this mode the image is lighter, HDR quality is also worse. As the example above, 16MP photos for fresh colors, the roof appears clearer than 64MP photos.

I believe that this weakness can still be addressed by a software update, but for now in addition to very specific circumstances, I do not feel it necessary to take high-resolution images. During a week of experience, besides a few photos to compare the sharpness I took in normal mode!



In bright enough conditions, the Galaxy M31 produces pictures with 'decent' quality: clean and less noise, sometimes overexposed than it actually is, the colors were not too dark as the lines. Its old mid-range machine, so it's easier to post.

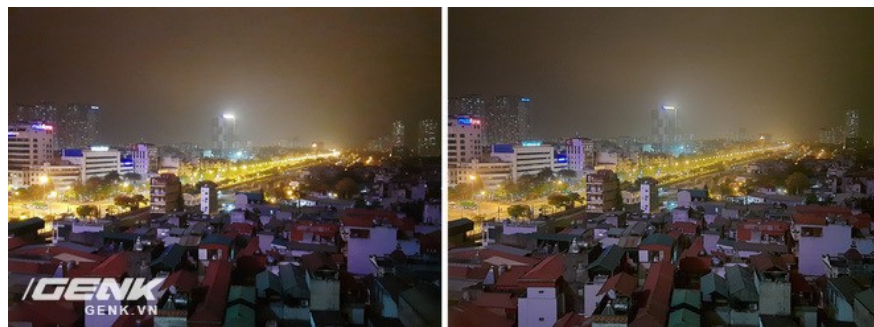


Photo taken normally (left) and taken in Night Mode (right)

The device is also equipped with Night Mode photography mode, but the quality is only called to be different from ordinary photography. As I predict, the company only allows the image processor to differ from the normal, increasing the brightness in dark places, reducing the brightness in bright areas so that the image feels more balanced rather than performing exposure in a few seconds like high-end models, so the results are not very impressive.



'Unimpressive' is also the term used to describe the ultra-wide angle camera of the device. Galaxy M31 instead of using the new generation 12MP ultra-wide angle camera of the A51 and A71, the 'reuse' of 8MP type has appeared since last year, and in fact used, the definition is much worse. the case of only a bit underexposed was washed out and lost its color.



Other than the 'old' super wide camera, we have a new camera for macro purposes. I like the camera, not because it's technically perfect, nor because it's easy to use, but because it opens up new types of photography that previous models couldn't.





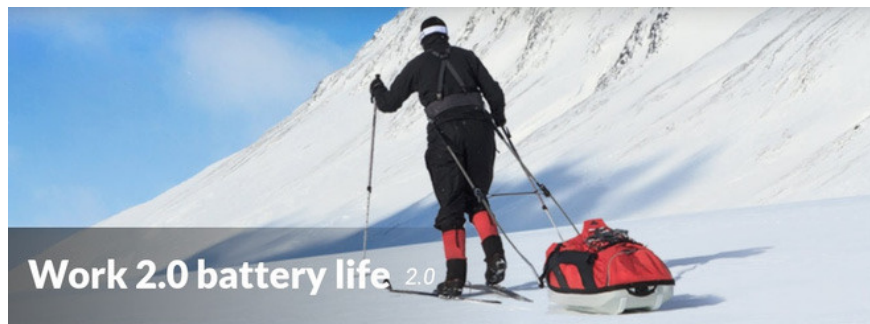


A few other photos taken from Galaxy M31

Going back to the design of the device, the first point that you will notice when holding the Galaxy M31 is that this device is quite thick. By comparison, the A51 is 7.9mm thick, while the M31 'bulges' up to 8.6mm - sounds small but makes a big difference on the hand.

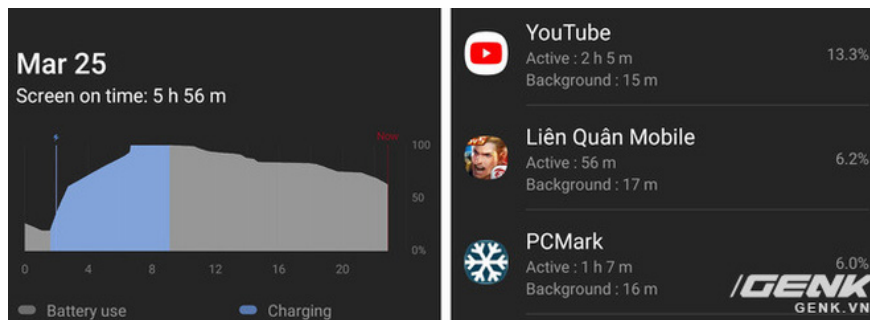


The only reason the device is so thick is a battery capacity of up to 6000mAh, maybe only lost to the 18,000mAh Energizer P18K battery . just like a brick! I also had a review of the battery-charging system of the device , but to sum it up, only one word: Great!



Work 2.0 battery life **15 h 25 min**

Through the Work 2.0 test, the Galaxy M31 battery reached 15 hours and 25 minutes, surpassing the 11h30 of the A51



Using 6 hours a day, including watching videos, playing games, reading the newspaper only takes 40% and 60%. If used economically, it is feasible to use it until the 3rd day

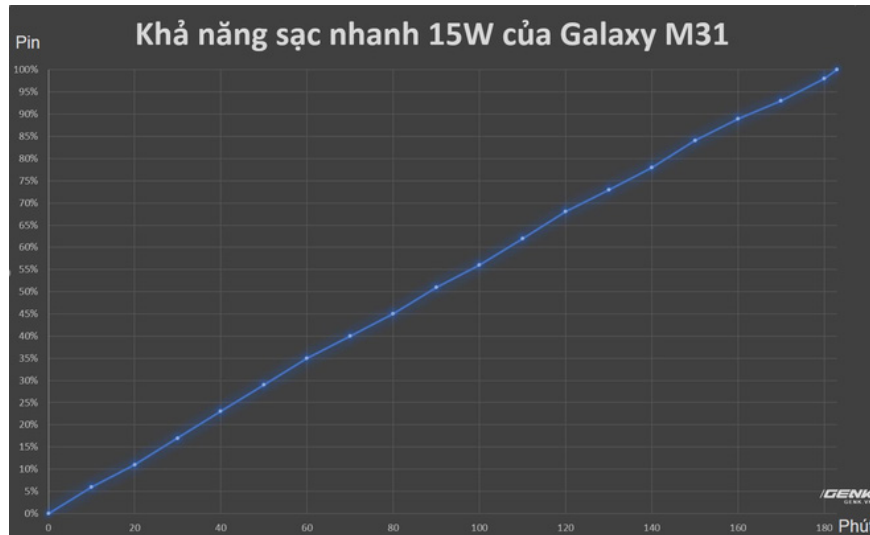


Try turning on the video for 10 hours continuously with the maximum brightness, the machine from fully charged is done up to 17%! Other models on the market have certainly been around for a long time.

The battery life is 'unmatched', but users will also have to accept the machine charging slower than usual:



The M31 supports 15W charging, which is called 'quick charge' but with the big battery it becomes 'slow charge'



It takes more than 3 hours to fully charge the battery, so users will have to make a habit of charging the device before going to bed if you do not want to experience the condition of waiting for your eyes to charge the next day.

Apart from the battery, the other internal configuration elements of the machine are very similar to the Galaxy A51 (and also the A50s): Exynos 9611 (10nm) processor, Mali-G72 MP3 GPU, 6GB of RAM and optional 64 / 128GB of internal memory . This configuration has been used by Samsung in quite a lot of mid-range devices, to learn more details you can read more *here* .

Category	Score
Geekbench Score (Single-Core)	346
Geekbench Score (Multi-Core)	1261
Sling Shot Extreme - OpenGL ES 3.1 (Overall)	1597
Sling Shot Extreme - OpenGL ES 3.1 (Graphics)	1478
Sling Shot Extreme - OpenGL ES 3.1 (Physics)	2221
Sling Shot Extreme - Vulkan (Overall)	1555
Sling Shot Extreme - Vulkan (Graphics)	1437
Sling Shot Extreme - Vulkan (Physics)	2182

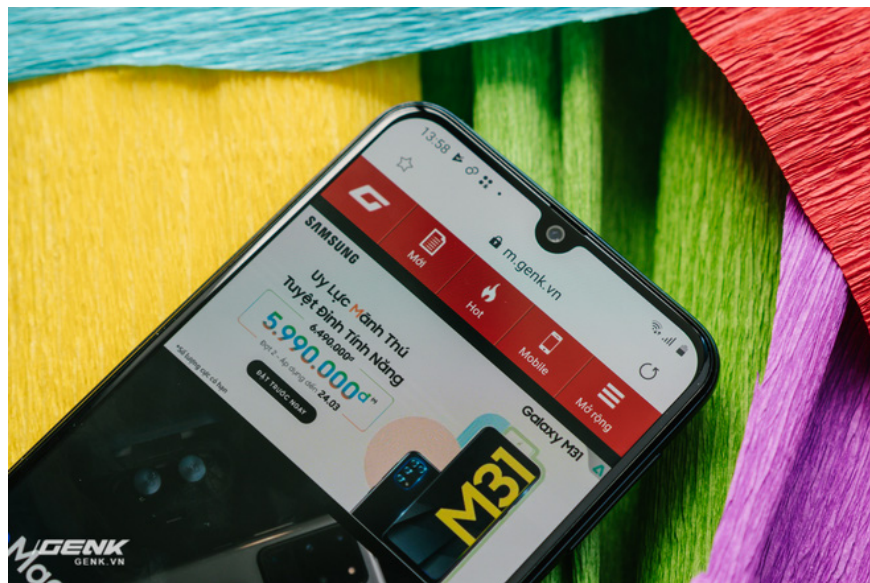
Field	Value
Operating System	Android 10
Model	samsung SM-M315F
Model ID	samsung SM-M315F
Motherboard	exynos9611
Governor	schedutil

Performance evaluation score of Galaxy M31

Finally we will turn the device to 'screen' the screen. This is a design point that has not changed from the M30s version, with a large 6.4-inch Super AMOLED screen with FullHD + resolution protected by Gorilla Glass 3.



Just by looking at the photo, you can see that this screen design is inferior to the new generation Galaxy A models such as A51 and A71. The upper section of the Infinity-U format takes up more space than the new Infinity-O type:



'Water drops' screen of Galaxy M31 .



. compared to a small dot Infinity-O of A51.

The bottom of the screen is also significantly thicker, so the screen ratio of this machine is 'shorter' than the A51.



The chubby bottom of the Galaxy M31 .



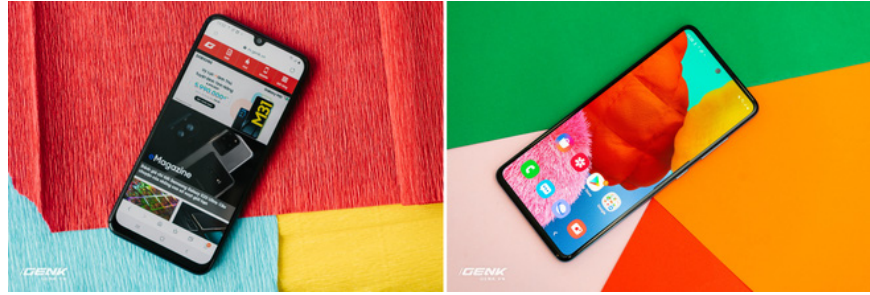
. compared to the super thin and well-proportioned A51.

Despite having a more 'simpler' design (frankly worse), I can't complain about the quality of this display. Even with mid-range models like the M31 or A51, Samsung's Super AMOLED panels are always not disappointing in the contrast, color density and brightness to be used in the sun.



### ***Need something, buy that***

Reading this article you will think that I was not impressed with the Galaxy M31 - *and you were right!* Despite being very close to the Galaxy A51 'compatriot', this device loses the advantages of design on both the back and screen, lacks a new generation fingerprint sensor; The camera system is much in both number and number of dots, but it does not make users confident that they will produce beautiful images in all cases.



The Galaxy A51 is better than the M31 in a lot of ways, except for just one battery point

But the 'trump card' of the Galaxy M31, which makes even the most high-end models 'look up' is its battery life. For middle-aged users who work on the field or like to go on a picnic, having a smartphone that lasts for a long time is much more valuable than a good design, a good camera. 'or high profile.

*And maybe, 'what you need, buy that', the only thing Samsung does well here is to give us different options at the same price!*

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