

White paper:

The guide to choosing the right phones for your small or midsize business

With the right capabilities in hand, employees can do better work from anywhere.



Choosing the right phone for business

News and analysis about smartphones typically focus on the flash and sizzle of the latest consumer features, but for business decision-makers there is often an entirely different set of criteria when selecting a device for the workforce. Companies are embracing smartphones and the benefits of mobility, and many see they can no longer depend on employee-owned devices and Bring Your Own Device (BYOD) policies. They know phones are poised to replace laptops as their team's primary computing devices, and they see the potential value of running their business on mobile applications on a uniform platform they control completely.

In a mature mobile environment, businesses look at smartphones with the same critical eye they bring to other

technology assets. They are looking for phones that deliver the most value at the right price point, but they also recognize that overemphasizing the initial device price tag can backfire. They want to make smart decisions that preserve capital while enabling business growth and optimizing employee productivity.

This guide will help business owners and IT decision makers understand device capabilities in a business context. It delves into the business value of capabilities such as battery life, processing power, storage and connectivity, and correlates them to real-world business needs, such as the use of cloud-based apps. It poses questions that will help businesses choose the phones that best meet their unique needs.



Matching phones and roles

With the rapid evolution of smartphone capabilities, there are now significant variations in performance across the device spectrum. For example, the most powerful phones offer up to 16GB of RAM and up to 1TB of storage, compared to 1.5GB and 16GB, respectively, in a less expensive device. Similar differences can be found in screen size, battery life and processing power, as well as in premium features such as stylus pen and desktop docking.

Of course, a phone's feature set generally correlates to its price, and businesses can get the best ROI by aligning each

phone they buy with the job functions of the employees using the device. Choosing the right phones, however, is not as simple as it might seem to be.

Every buying decision should be generously skewed toward greater device capabilities, because the cost/return factors are severely mismatched. Any savings the company achieves from buying a less capable device can be measured in hundreds of dollars, while any persistent productivity declines can quickly cost the business thousands upon thousands of dollars, particularly if they are repeated across multiple employees. A device that jeopardizes productivity in any way will cause needless frustration and diminish the potential of the managers and employees.



Evaluate the demands of each role





An effective decision process should begin with an evaluation of each role's needs as they pertain to the smartphone. A purchase plan that accounts for the unique needs of each role will result in smart purchases that help each manager and employee optimize their performance, wherever they are working.

Most roles have unique responsibilities to be carried out on smartphones. An HVAC technician might use a phone to review equipment manuals and collect customer signatures on work orders. A delivery driver might use the phone to

complete forms, geo-stamp locations and collect signatures. A consultant might use the phone to take notes, review presentations and respond to emails.

Some important differentiations jump out right away: Some roles carry a high risk of device damage, some operate in the field for a large part of their day, while other roles may use their phone primarily for calls, messages and emails.

There are also commonalities. Most roles need to run multiple apps simultaneously and/or handle large files, and most employees could see their productivity diminish if their phone was slow or unavailable.

Business role and their needs	Collect signatures	High risk of damage to device	Take notes or complete forms	Manage large files	Handle device with customers	Gather images	Need extended battery life
 HVAC technician	+	+	+	+	+	+	+
 Delivery driver	+	+	+		+	+	
 Consultant	+		+	+	+	+	+
 Regional store manager			+		+	+	

Leverage devices to improve business processes

Many smartphones have speed and storage comparable to laptops, and innovators are finding ways to take advantage of that power. Businesses that want to mobilize core business processes are looking at mobility for important new opportunities. A great example is brick-and-mortar retail, where stores are putting mobile devices in the hands of every store associate to support sales processes that enhance the shopping experience. Similarly, retail bank branches are redesigning customer experiences around mobile so that customers are served quickly with minimal paper form-filling.

As companies plan new phone purchases, they can learn about leading-edge capabilities and leverage them to reimagine business processes. A retail store might be able to eliminate traditional checkout completely, while empowering regional managers to dock their phones in hot desks in every store and move right into a desktop work environment without carrying a laptop computer.

DeX extends your phone to the desktop

The latest smartphones offer more storage, memory and processing power than many laptops. Samsung's DeX technology takes full advantage of this by letting users connect their Galaxy device to a monitor, keyboard and mouse for a desktop computing experience. This positions businesses to move beyond "mobile-first" strategy to "mobile-only," which liberates them from traditional computing constraints and future-proofs the business.

By committing to smartphones as the primary compute devices, businesses can untether employees from desks, cash registers and reception areas and enable more customer-centric workflows. At the same time, they can consolidate their device fleets by eliminating laptops and desktops.

DeX offers significant benefits to the entire company: Managers and employees can go wherever they are needed and travel light, procurement can spend less on hardware, and IT can focus exclusively on mobile computing.

For users, ease of use is an important DeX feature. They simply attach their phone to a monitor with a single HDMI adapter and activate DeX mode to turn the smartphone into a desktop workstation that works with a keyboard and a mouse. They can open multiple apps, use keyboard shortcuts and drag and drop files, all on the big screen. If the phone has an S Pen, like the Samsung Galaxy Note20, the phone screen can serve as a pen-enabled touchpad for

enhanced precision and functionality. With DeX's Dual Mode setting, users can watch a video on the monitor while taking notes on the phone screen.

DeX works with most modern web-based apps and can use virtual desktop infrastructure (VDI) to bridge the gap to Windows native applications that have not been replaced with mobile equivalents. Business can rely fully on VDI, or only for access to specific applications.

Use DeX wirelessly on Miracast-enabled displays



Choosing the right device capabilities

With new iterations every year, smartphones have gained speed, power and added capabilities. Some specifications such as screen size and storage capacity are easy to understand, while others are more esoteric, such as the mAh metric for battery capacity. Once a business has decided what sort of capabilities it needs in phones and why, it is easier to put the technical specifications in context and make educated choices.

Here is an in-depth look at specific smartphone specifications and capabilities. Each section includes questions to help businesses assess the value of that capability to their employees.

1. Battery life

Long-lasting batteries are essential to ensuring employees can maintain productivity under all circumstances. That's especially true for employees who spend a lot of time out of the office, working on the road or at client sites. In most cases, the additional cost of longer-lasting smartphones pales in comparison to the cost of just a little lost productivity every day. Today's phones typically carry battery capacities of 2,500 to 5,000 milliamperes (mAh). However, battery size shouldn't be viewed in isolation.

Also consider:

- Larger screens consume more power.
- Advanced application processors are more energy-efficient.
- Top-tier devices feature smart battery life optimization features.

Removable batteries are less common today as the market has shifted toward unibody designs and emphasized water resistance. However, removable batteries are particularly helpful in business settings where use of smartphones is shared, for example as a scanning device in a warehouse or for nurse communications.

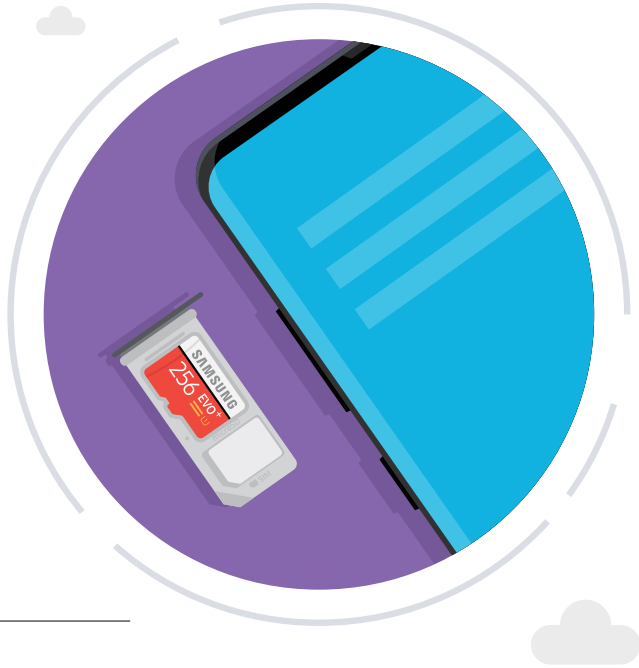
If the performance of your business can be seriously compromised by a manager or employee going offline at a critical moment, don't skimp on battery life. Your phone batteries should also support wireless fast charging, and the phones should offer easy-to-use power-saving features, so employees can trim their usage proactively when they know they'll need more juice later.



Key questions to consider:

How much time do your users need to go between charges?

What percentage of their time are they using their smartphone?



2. Memory

Random-access memory (RAM) is a critical variable for power users, and one that is easy to overlook. RAM has a direct effect on the phone's performance and user experience, especially when running multiple applications and accessing large documents or multimedia files. Today's high-end smartphones offer RAM of 8GB, 12GB or even 16GB, which is comparable to many laptops. With enough RAM, multiple apps can run in the background without compromising performance. If you don't have enough, performance will drag and productivity can suffer. Keep in mind, too, that mobile device management clients or other endpoint security apps that need to run at all times can weigh on memory resources, as can mobile versions of key productivity apps.

If you have users whose needs are not RAM-intensive, you can reduce purchase costs by buying them phones with 4GB or less. For users who rely heavily on phone performance and/or use powerful applications, look for at least 6GB.

Key questions to consider:

Will users be running multiple applications simultaneously?

Will users be viewing or editing large documents or multimedia files?

Phones must be secure, configurable and manageable

There is a lot more to running a mobile-first business than just issuing corporate-owned phones. Businesses need their phones to be company-customized tools that empower managers and employees to be fast and efficient. The phones also need to be reliably secure and easy to manage, so that IT can easily keep every device profile consistent and up to date.

Samsung phones are uniquely suited for business because they are built on Samsung Knox, which combines powerful device-level security with a suite of management solutions for business. Here is a quick look at how the different elements of Knox meet the needs of growing businesses.



Built-in security: Knox security is designed into the Samsung hardware, using a process architecture known as TrustZone, which isolates sensitive computations from all other operations. Data processes are tightly defined to protect against malicious applications, and the device scans itself continuously for inconsistencies.



Custom configuration: With the Knox Configure solution, phones can be configured at deployment to a precise specification designed for the business. Companies can have their devices configured once or maintain dynamic configuration that allows them to maintain multiple device profiles and update every device as profiles are updated.



Enrollment: Knox Mobile Enrollment enables batch enrollment of phones in an enterprise mobility management (EMM) solution, which prevents the hassle of enrolling phones individually and ensures proper management of the devices from the moment of deployment.



Device management: Knox Manage is Samsung's cloud-based EMM solution, which empowers IT to implement policies such as application whitelisting and blocklisting and enables the remote management of individual devices.

3. Screen size

When it comes to screen size, bigger is often — but not always — better. Smartphones today come in a range of sizes, from less than 5 inches to 6.5 inches or more. While an inch may not seem like a big deal, it can make a huge difference for certain users. Smaller devices, on the other hand, have their place for employees who typically use them primarily as communication tools. Smartphones larger than 6 inches — sometimes called phablets — allow users to more effectively multitask, use a stylus or pen for on-screen note-taking and use productivity apps.

Before you buy, think carefully about how the phones will be used, and provide what employees really need. Some users will benefit more from a large screen that enhances document reading or image viewing. Others may be happy with a smaller device that is easier to handle and pull from their pocket. While big screens often drive up the price, there is an increasing number of mid-range devices that have expansive displays with diminutive price tags.

Beyond 7 inches, you're in tablet territory. 4G-connected tablets are the best fit for teams that would benefit from more screen real estate. Employees who interact with



customers in person — such as salespeople, service workers or customer service personnel — often benefit from devices with large enough screens to share with customers, but not so large that they become unwieldy. Higher end tablets also have vivid, sharp displays perfect for both video and still images — ideal for executives and salespeople who routinely interact with executives from other companies or high-end customers. A large, bright screen helps them make the right impression.

Along with screen size, increased screen resolution supports improved user experience. Screens are measured in terms of how many pixels they can show and the density of those pixels. Resolution is often expressed with terms such as HD and Full HD (FHD), and these terms have specific numeric values. Entry-level devices typically have HD resolution, which measures 1280x720 pixels. FHD+ packs many more pixels on the screen, such as the 3200x1440 pixels on the Samsung Galaxy S21 Ultra 5G. An increase in pixels automatically equates to higher pixel density. The S21 Ultra 5G offers 515 pixels per inch (ppi), compared to 269 ppi on some entry-level HD screens.

Key questions to consider:

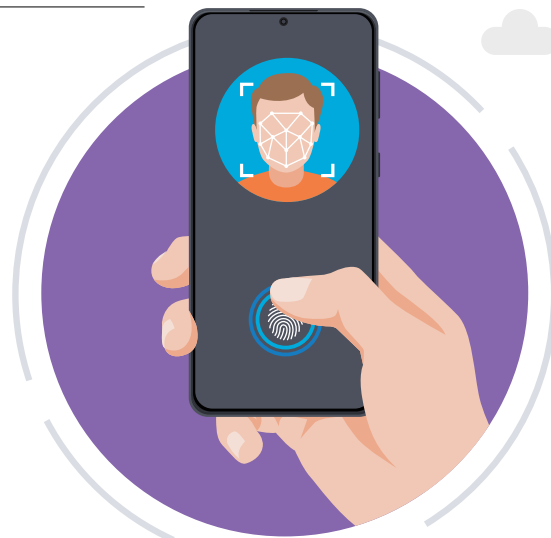
Will users be viewing documents or video where screen size or resolution is important?

Will users be showing content to customers or clients on their device?

4. Biometrics

Biometrics capabilities vary between phones. Fingerprint authentication has become common, while authentication by iris, facial recognition and voice are used in some newer phones. Businesses are embracing biometrics for accessing mobile applications, because they are more secure and easier to use than passwords. Sound password management often involves third-party applications and regular updating, whereas biometric authentication is less cumbersome and more convenient.

Fingerprint remains the most popular method of biometric authentication, but not all fingerprint sensors are created equal. Smartphones like the Galaxy S21 series and Galaxy Note20



series include Ultrasonic Fingerprint ID technology, an in-display sensor that utilizes small pulses to create a 3D image of the user's fingertip. This technology is considerably more secure than optical fingerprint scanners, which can be spoofed by 2D reproductions.

Facial recognition is generally less secure and can cause inconvenience for employees who wear masks during work.

Biometric capabilities are evolving quickly, and it is important for any business to understand the specific requirements of an implementation, particularly in regulated industries where security concerns are top of mind.

Key questions to consider:

How do your users prefer to unlock their device or authenticate to applications?

What compliance requirements will affect your authentication requirements?

Key questions to consider:

Will employees need to capture signatures?

Will employees be taking notes or annotating documents?



5. Digital pen

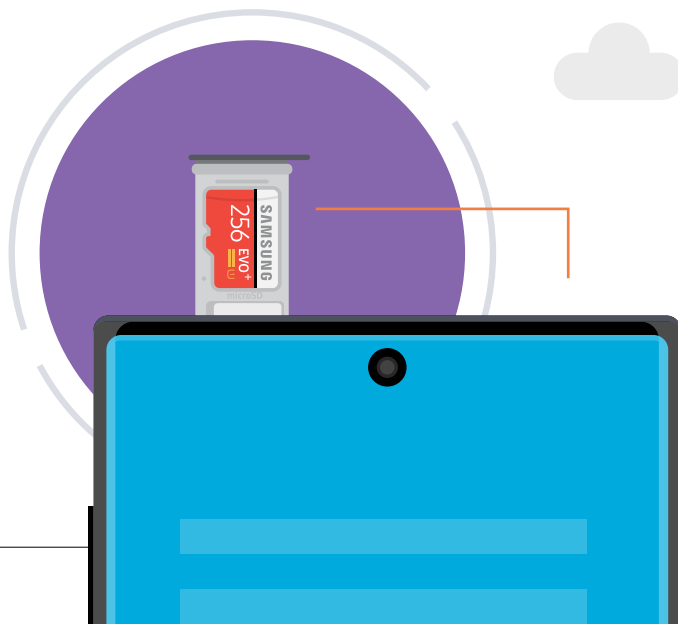
Today's digital pens are much more functional, easier to use and more comfortable to hold than the styluses of a decade ago. They allow users to jot down memos, annotate documents and accept signatures. These capabilities are particularly important for employees who interact with customers, vendors and partners. It enables quick item selection on the screen, saving valuable time in front of customers.

Some devices, such as Samsung's Galaxy Note series, are optimized to work seamlessly with a pen. The Galaxy Note's S Pen lets users take notes on their device's screen even when the screen is off. It also features unique tools that can be used to mark up documents, lasso images and even highlight and translate text. If innovation is a driving force and ideas are flying, this feature will easily pay for itself.

6. Storage

Storage is an important variable for businesses to consider, because it is critical to employees who need it and useless for those who don't. Employees who use phones strictly to communicate and use lightweight apps can get by with the 32GB of storage that is standard on many entry-level devices. That base-level storage could prove highly detrimental, however, for anyone who exchanges large files or gathers information via photos or video.

Today's gold standard for storage is 128GB, but more storage is available on newer phones, including the



Samsung Galaxy S21 Ultra 5G, which features up to 512GB of built-in storage. Some smartphones also allow users to augment the on-board storage with the addition of a microSD card, which is easy to carry, share and swap out.



Key questions to consider:

What kinds of documents and files will employees be storing?

How much space do employees need to store the documents and files they collect or use?

Key questions to consider:

What sort of computing loads will employees handle?

Which apps will run simultaneously?

7. Processor

Any users who use multiple applications or large applications will benefit from a more powerful core processor in their phone. Faster phones have 5- or 7-nanometer processors with eight cores (octacore), versus the quad-core or dual-core processors found in mid-tier and entry-level phones. Newer processors are often more power-efficient than their predecessors, so they can also extend battery life, particularly when paired with 8GB or more of RAM. If you want your users moving quickly under heavy loads, look for high-end specs on the processor. Conversely, where users have light processing loads and simple apps, you have an opportunity to save by deploying less expensive phones.

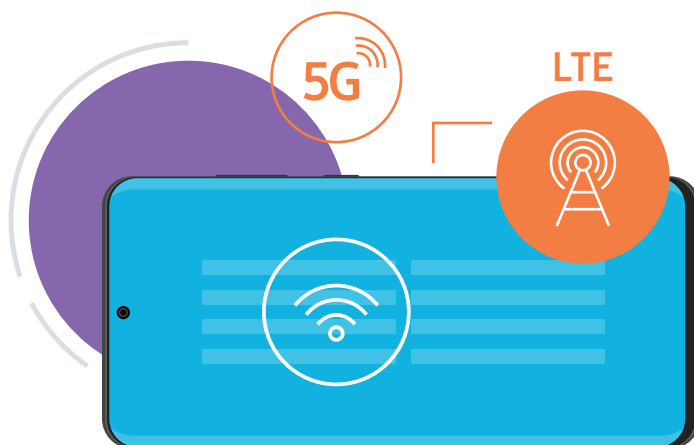
8. Connectivity

Teams that are reliant on high-speed data, such as downloading large files or streaming video, require phones with fast modems. High-speed connectivity also supports the performance of the cloud-based apps that are widely used in most growing businesses. Newer phones feature ultra-fast Cat. 20 LTE capable of much faster downloads. Combined with the 4x4 MIMO antenna, the processor delivers faster connectivity than most laptops over Wi-Fi networks.

Key questions to consider:

Will employees be streaming video or downloading large files?

Do you anticipate taking advantage of 5G networks within the next two years?



It's also important to think about whether your business would benefit from having 5G-capable devices, as the next-gen mobile network expands in 2021 and beyond.

When evaluating 5G devices, make sure you look at which 5G spectrum is supported. Sub-6GHz and mmWave networks have very different benefits when it comes to coverage and speed.

9. Durability

If some of your employees work outdoors, in warehouses or on moving vehicles, device durability is a key consideration. While all devices have some level of durability — and can achieve more with the right case — those that may be exposed to moisture, intense heat, heights or vibrations may require greater durability.



Key questions to consider:

What conditions will employees work in?

How will productivity be affected by a device being damaged?

The gold standard for achieving this level of durability is the Defense Department's MIL-STD-810G, which tests devices in a wide variety of harsh environments. Tests include the ability to function in low pressure, high and low temperatures, icy conditions, salt fog, humidity, water, dust and shock. Devices that meet these stringent conditions include Samsung's Galaxy XCover Pro.

10. The unlocked option

Unlocked mobile devices have gained tremendous popularity because of the freedom they afford regarding cellular carriers. Companies can switch providers, use the devices as Wi-Fi only and swap out SIM cards for international travel. Unlocked phones are ideal when carrier services aren't needed, such as employees working within a Wi-Fi enabled environment. When cell service is required, however, companies should determine whether carriers restrict specific features, such as



Key questions to consider:

Where will phones be used?

How often do employees need access to cellular networks?

voice-over-LTE or Wi-Fi calling, to locked phones. Cash flow is another differentiator: Typically, carriers allow businesses to lease locked phones monthly, but require full upfront payment for unlocked phones.

Wearables: Not only for fitness tracking anymore

Smartwatches are also emerging as important alternatives for many businesses. With a device that accesses cellular data directly or tethers to your phone via Bluetooth, mobile workers can receive calls, alerts and texts from any location by leveraging cellular networks when they are beyond the reach of Wi-Fi, and they can respond via voice or SMS. Wearables are equipped with sensors for GPS, motion detection and heart rate that businesses can use as needed for situational awareness, health monitoring and social distancing reminders.



Conclusion

Businesses need to innovate and deliver great experiences for customers, while helping employees remain productive, wherever they're working. Technology is an essential enabler for end users, and mobile devices and the capabilities they provide play a critical role in connecting employees to core applications from anywhere. Given the broad range in device and feature choice, there is a significant opportunity to improve the bottom line by evaluating device choices with care and matching devices precisely with business responsibilities.

Overspending for an employee with basic device requirements is an obvious example of misallocated resources, but there is an even greater risk to the business in providing underperforming devices. Decision makers who take the time to study capabilities and features will find the right fit for every role and situation. And by doing so, they will maximize productivity, support exceptional customer experience and facilitate timely transactions.

The key is choosing the right devices for each employee. When making your decisions, it's important to evaluate not only the devices and the features, but the platform and the vendor. Choose a platform and vendor with a long history of solid products, customer service and innovation. Work with a vendor that offers a robust line of devices in a variety of form factors, with different features and functions, to ensure all options are weighed and considered. Finally, examine their road map and confirm that it aligns with your own future plans.

By deliberately matching functions to the needs of your business and employees — instead of dismissing mobility as a commodity best left to consumers — your company can take a giant step toward ensuring its future workforce productivity and efficiency.



Inside the Samsung device portfolio

Samsung offers a broad portfolio of smartphones, with devices suited for any role and any industry. This chart helps users identify which devices to buy by mapping the specifications discussed above to different devices.

NOTE: This chart profiles only a sample of the device portfolio. For a look at the complete smartphone family, visit www.samsung.com/b2bmobilephones.

Samsung portfolio device specifications



Screen: 6.2-in. FHD+ Dynamic AMOLED 2X

Processor: Snapdragon 888

Battery: 4,000mAh battery

Memory: 8GB

Storage: 128GB or 256GB

Galaxy S21 5G

5G

DeX



Screen: 6.5-in. FHD+ Super AMOLED

Processor: Octa-Core

Battery: 4,500mAh


Memory: 6GB

Storage: 128GB

Galaxy S20 FE

5G

DeX



Screen: 6.9-in. WQHD+ (Edge) 120Hz

Processor: Snapdragon 865 PRO

Battery: 4,500mAh

Memory: 12GB


Storage: 128GB

Galaxy Note20 Ultra

5G

DeX

S Pen



Screen: 6.7-in. FHD+ (Flat) 60Hz

Processor: Snapdragon 865 PRO

Battery: 4,300mAh

Memory: 8GB

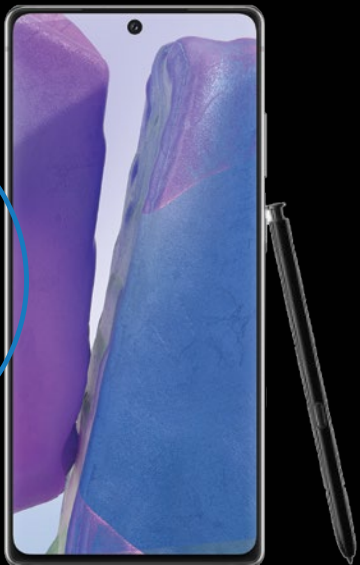
Storage: 128GB

5G

DeX

S Pen

Galaxy Note20



Screen: 6.8-in. WQHD+,
Dynamic AMOLED

Processor: SM8150, 7-nm, Octa-Core

Battery: 4,300mAh, Wired and Wireless
Super Fast Charging, PowerShare

Memory: 12GB


Storage: 256GB / 512GB,
expandable with MicroSD

5G

DeX

S Pen

Galaxy Note10+ 5G



Screen: 6.8-in. WQHD+,
Dynamic AMOLED

Processor: SM8150, 7-nm, Octa-Core

Battery: 4,300mAh, Wired and Wireless Super
Fast Charging, PowerShare


Memory: 12GB

Storage: 256GB / 512GB,
expandable with MicroSD

DeX

S Pen

Galaxy Note10+



Screen: 6.3-in. FHD+,
Dynamic AMOLED

Processor: SM8150, 7-nm, Octa-Core

Battery: 3,500mAh, Wired and Wireless
Super Fast Charging, PowerShare

Memory: 8GB

Storage: 256GB



DeX



S Pen

Galaxy Note10



Galaxy S10 5G

Screen: 6.7-in. QHD+,
Dynamic AMOLED

Processor: SM8150, 7-nm, Octa-Core

Battery: 4,500mAh, Wired and Wireless Super
Fast Charging, PowerShare

Memory: 8GB

Storage: 256GB / 512GB



5G



DeX

Screen: 6.4-in QHD+
Dynamic AMOLED, 3040x1440

Processor: SM8150, 7-nm, Octa-Core, 64-bit

Battery: 4100mAh, Wired and Wireless Fast
Charging, PowerShare

Memory: 8GB / 12GB

Storage: 128GB / 512GB / 1TB;
expandable up to 512 GB with MicroSD



DeX

Galaxy S10+



Screen: 6.1-in. Quad HD+
Dynamic AMOLED, 3040x1440
Processor: SM8150, 7-nm, Octa-Core, 64-bit
Battery: 3,400mAh, Wired and Wireless Fast
Charging, PowerShare
Memory: 6GB / 8GB
Storage: 128GB / 512 GB,
expandable up to 512GB with MicroSD



DeX

Galaxy S10



Galaxy S10e

Screen: 5.8-in. FHD+ Dynamic AMOLED,
2280x1080
Processor: SM8150, 7-nm, Octa-Core, 64-bit
Battery: 3,100mAh, Wired and Wireless Fast
Charging, PowerShare
Memory: 6GB / 8GB
Storage: 128GB / 256GB,
expandable up to 512 GB with MicroSD



DeX

Screen: 6.3-in. FHD+
Processor: Exynos 9611 Octa-Core
Battery: 4,050mAh, replaceable with pogo pin charging
Memory: 4GB
Storage: 64GB
expandable with MicroSD

Enhanced
Touch

MIL-STD-810G

Galaxy XCover Pro



Screen: 6.7-in. FHD+ Super AMOLED Display

Processor: Snapdragon 765G

Battery: 4,500mAh, 25W Fast Charge

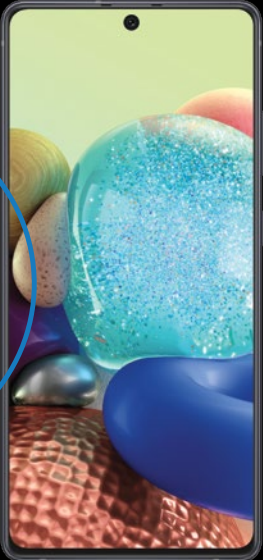
Memory: 6GB

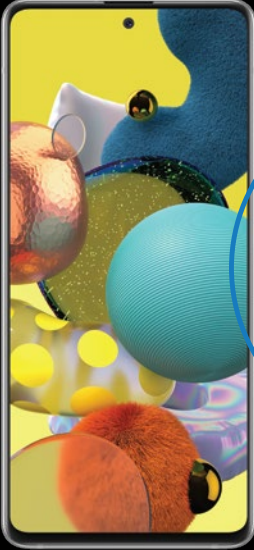
Storage: 128GB Storage

5G

5G

Galaxy A71





Galaxy A51

Screen: 6.5-in. FHD+ Super AMOLED Display

Processor: Exynos 9611 Octa-Core

Battery: 4,000mAh, 15W Fast Charge

Memory: 4GB

Storage: 128GB Storage

Screen: 6.5-in. HD+ Infinity O-Display


Processor: Helio P35 Octa-core

Battery: 4,000mAh, 15W Fast Charge

Memory: 4GB

Storage: 128GB Storage

Galaxy A21



Screen: 6.4-in. HD+ Infinity-O Display

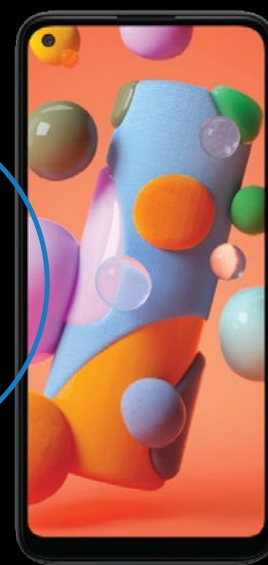
Processor: Octa Core (1.8 GHz)

Battery: 4,000mAh, 10W Fast Charge

Memory: 2GB

Storage: 32GB Storage + MicroSD
(Up to 512MB)

**Galaxy
A11**



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