

Samsung Galaxy S24

Release Date: Early 2024 (Flagship)

Design & Build

- **Materials:** Glass front (Gorilla Glass Victus 2), aluminum frame, and glass back
- **Dimensions & Weight:** Approximately 146.3 x 70.9 x 7.8 mm; around 171 grams (exact figures may vary)
- **Finish Options:** Premium color variants with a sleek, modern design

Display

- **Type:** 6.1-inch Dynamic AMOLED 2X
- **Resolution:** Approximately 2340 x 1080 pixels (~425 ppi)
- **Refresh Rate:** Up to 120 Hz with HDR10+ support
- **Brightness & Protection:** Peak brightness around 1500 nits and enhanced durability with Gorilla Glass Victus 2

Performance

- **Processor:** Region-dependent – Snapdragon 8 Gen 3 (US/selected markets) or Exynos 2400 (other regions)
- **RAM:** Options typically include 8 GB or 12 GB
- **Storage:** 128 GB, 256 GB, or 512 GB (UFS 4.0; non-expandable)

Camera System

- **Rear Cameras:**

- **Main:** 50 MP sensor, f/1.8 with optical image stabilization (OIS)
 - **Ultra-Wide:** 12 MP sensor, f/2.2 for wider shots
 - **Telephoto:** 10 MP sensor with approximately 3x optical zoom
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- **Video Recording:** Supports 8K video at 24 fps and 4K up to 60 fps
 - **Front Camera:** 12 MP selfie camera optimized for low-light and portrait modes

Battery & Charging

- **Battery Capacity:** Around 4000 mAh
- **Charging:** Fast wired charging (up to 45W), wireless charging, and reverse wireless charging support

Software & Connectivity

- **OS:** Android 14 with Samsung's One UI 6
- **Connectivity:** 5G, Wi-Fi 6E, Bluetooth 5.3, NFC, and location services

Samsung Galaxy S23

Release Date: February 2023

Design & Build

- **Materials:** Glass front, aluminum frame, and glass back for a premium feel
- **Dimensions & Weight:** Approximately 146.3 x 70.9 x 7.6 mm; roughly 168 grams
- **Finish Options:** Offered in a range of classic colors with a refined finish

Display

- **Type:** 6.1-inch Dynamic AMOLED 2X
- **Resolution:** 2340 x 1080 pixels (~425 ppi)
- **Refresh Rate:** 120 Hz with HDR10+ support

Performance

- **Processor:** Snapdragon 8 Gen 2 for Galaxy (varies by region)
- **RAM:** 8 GB
- **Storage:** Options include 128 GB, 256 GB, or 512 GB (UFS 4.0)

Camera System

- **Rear Cameras:**
 - **Main:** 50 MP sensor, f/1.8 with OIS
 - **Ultra-Wide:** 12 MP sensor, f/2.2
 - **Telephoto:** 10 MP sensor with 3x optical zoom
- **Video:** 8K video at 24 fps and 4K video up to 60 fps
- **Front Camera:** 12 MP selfie camera optimized for high-quality video calls

Battery & Charging

- **Capacity:** Approximately 3900 mAh
- **Charging:** Supports fast wired charging (up to 45W) and wireless charging

Software & Connectivity

- **OS:** Android 13 with One UI 5.1 (upgradeable to Android 14)
 - **Connectivity:** 5G, Wi-Fi 6E, Bluetooth 5.2, NFC
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Samsung Galaxy S22

Release Date: February 2022

Design & Build

- **Materials:** Glass front with an aluminum frame and glass back
- **Dimensions & Weight:** Around 146 x 70.6 x 7.6 mm; ~167 grams
- **Finish Options:** Elegant color choices with a slim profile

Display

- **Type:** 6.1-inch Dynamic AMOLED 2X
- **Resolution:** 2340 x 1080 pixels (~425 ppi)
- **Refresh Rate:** 120 Hz with HDR10+ support

Performance

- **Processor:** Snapdragon 8 Gen 1 (in the US) or Exynos 2200 (in other regions)
- **RAM:** 8 GB
- **Storage:** 128 GB, 256 GB, or 512 GB

Camera System

- **Rear Cameras:**
 - **Main:** 50 MP sensor with f/1.8 and OIS
 - **Ultra-Wide:** 12 MP sensor
 - **Telephoto:** 10 MP sensor with 3x optical zoom
- **Video:** Capable of 8K and 4K video recording
- **Front Camera:** Typically a 10 MP sensor for selfies

Battery & Charging

- **Capacity:** About 3700 mAh
- **Charging:** Fast charging (around 25W), wireless charging, and reverse wireless charging

Software & Connectivity

- **OS:** Android 12 with One UI 4.1 (upgradeable)
- **Connectivity:** 5G, Wi-Fi 6, Bluetooth 5.2, NFC

Samsung Galaxy S22 Ultra

Release Date: February 2022 – Flagship “Phablet” Edition

Design & Build

- **Materials:** Glass front (Gorilla Glass Victus+), aluminum frame, and glass back
- **Dimensions & Weight:** Approximately 163.3 x 77.9 x 8.9 mm; around 228 grams
- **Finish Options:** Premium color palettes with a built-in S-Pen slot (S Pen support)

Display

- **Type:** 6.8-inch Dynamic AMOLED 2X
- **Resolution:** QHD+ (3088 x 1440 pixels) with ~516 ppi
- **Refresh Rate:** Adaptive 120 Hz with HDR10+ support

Performance

- **Processor:** Snapdragon 8 Gen 1 (US) or Exynos 2200 (other regions)
- **RAM:** Options include 8 GB or 12 GB
- **Storage:** 128 GB, 256 GB, 512 GB, or 1 TB

Camera System

- **Rear Cameras:**

- **Main:** 108 MP sensor, f/1.8 with OIS
 - **Ultra-Wide:** 12 MP sensor
 - **Telephoto 1:** 10 MP sensor with 3x optical zoom
 - **Telephoto 2:** 10 MP sensor with 10x optical zoom
- **Video:** 8K video recording at 24 fps and 4K up to 60 fps
 - **Front Camera:** 40 MP sensor for high-resolution selfies

Battery & Charging

- **Capacity:** 5000 mAh
- **Charging:** Fast wired charging (up to 45W), wireless charging, and reverse wireless charging

Software & Connectivity

- **OS:** Initially Android 12 with One UI 4.1 (upgradeable to later versions)
- **Connectivity:** 5G, Wi-Fi 6E, Bluetooth 5.2, NFC

Samsung Galaxy A14

Release Date: Early 2023 (Midrange)

Design & Build

- **Materials:** Polycarbonate body with a durable design
- **Dimensions & Weight:** Approximately 164 x 75 x 9 mm; around 200 grams (estimates)
- **Finish Options:** Offered in multiple attractive colors

Display

- **Type:** 6.6-inch PLS LCD
- **Resolution:** Full HD+ (1080 x 2408 pixels)
- **Refresh Rate:** Typically 90 Hz for smoother scrolling

Performance

- **Processor:** Depending on the region, either an Exynos 850 or a MediaTek chipset (e.g., Helio G80)
- **RAM:** Options include 4 GB or 6 GB
- **Storage:** 64 GB or 128 GB, expandable via microSD

Camera System

- **Rear Cameras:**
 - **Main:** Approximately 48–50 MP sensor
 - **Ultra-Wide:** 5 MP sensor for wider shots
 - **Depth Sensor:** 2 MP for portrait effects
- **Front Camera:** 13 MP sensor optimized for selfies
- **Video:** 1080p recording with standard stabilization features

Battery & Charging

- **Capacity:** Around 5000 mAh
- **Charging:** Standard fast charging (approximately 15W)

Software & Connectivity

- **OS:** Android 13 with One UI Core
 - **Connectivity:** Available in 4G and 5G variants (depending on market), Wi-Fi, Bluetooth, and NFC (region dependent)
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Samsung Galaxy Z Fold 7

Release Date: Late 2023 – Next-Generation Foldable

Design & Build

- **Form Factor:** Foldable smartphone with a primary inner display and a cover display
- **Materials:** Ultra-thin foldable glass for the inner screen, Armor aluminum frame, and a durable cover
- **Dimensions:**
 - **Unfolded:** Approximately 158.2 x 128.1 x 6.4 mm
 - **Folded:** Roughly 158.2 x 67.1 x 14.4 mm

- **Weight:** Around 282 grams

Display

- **Main Display:**
7.6-inch Dynamic AMOLED 2X
 - **Resolution:** QXGA+ (around 2208 x 1768 pixels)
 - **Refresh Rate:** 120 Hz with HDR10+ support
- **Cover Display:** 6.2-inch Super AMOLED, Full HD+ resolution, 120 Hz

Performance

- **Processor:** Snapdragon 8+ Gen 2
- **RAM:** 12 GB or 16 GB (depending on configuration)
- **Storage:** Options include 256 GB, 512 GB, or 1 TB (UFS 4.0)

Camera System

- **Rear Cameras:**
 - **Main:** 50 MP sensor with f/1.8 and OIS
 - **Ultra-Wide:** 12 MP sensor with f/2.2
 - **Telephoto:** 10 MP sensor with 3x optical zoom
- **Front Cameras:**
 - Under-display camera on the main screen (approximately 10 MP)

- Dedicated cover camera (around 10 MP) for quick snaps
- **Video:** Supports 8K and 4K recording with advanced stabilization

Battery & Charging

- **Battery:** Dual-cell design with a combined capacity of around 4400 mAh
- **Charging:** Fast wired charging (approx. 25W+), wireless charging, and reverse wireless charging

Software & Connectivity

- **OS:** Android 13 with One UI 5.1 (upgradeable)
- **Connectivity:** 5G, Wi-Fi 6E, Bluetooth 5.2, NFC, and UWB support

Note: The Galaxy S24 and Z Fold 7 represent Samsung's latest innovations. For the most precise, region-specific, and updated figures (especially as firmware updates or regional variants may adjust certain parameters), please refer to Samsung's official product pages or technical briefs.