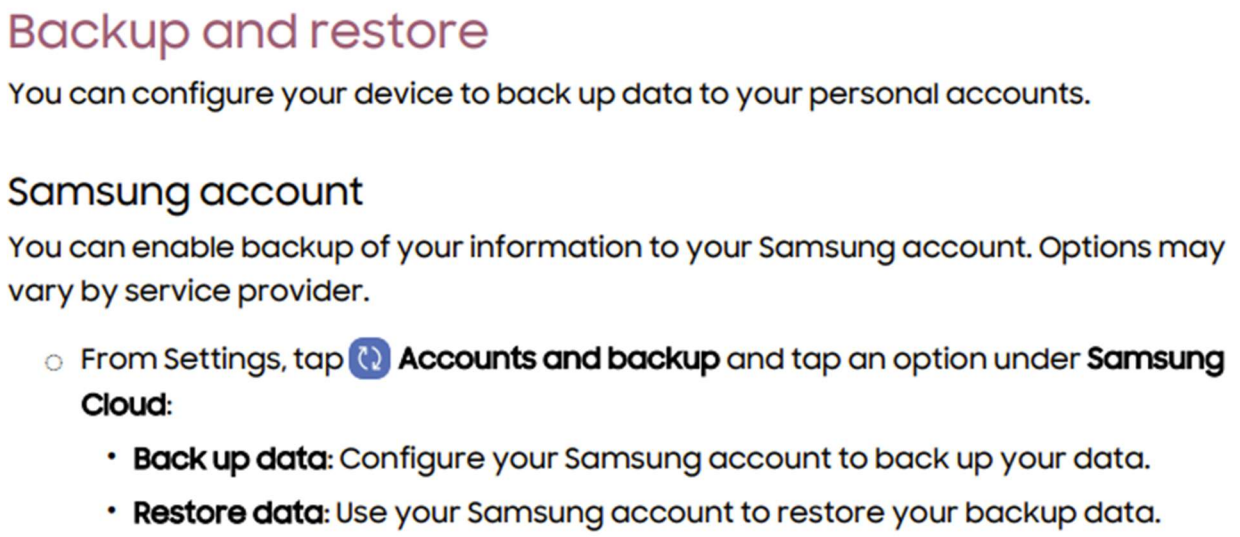
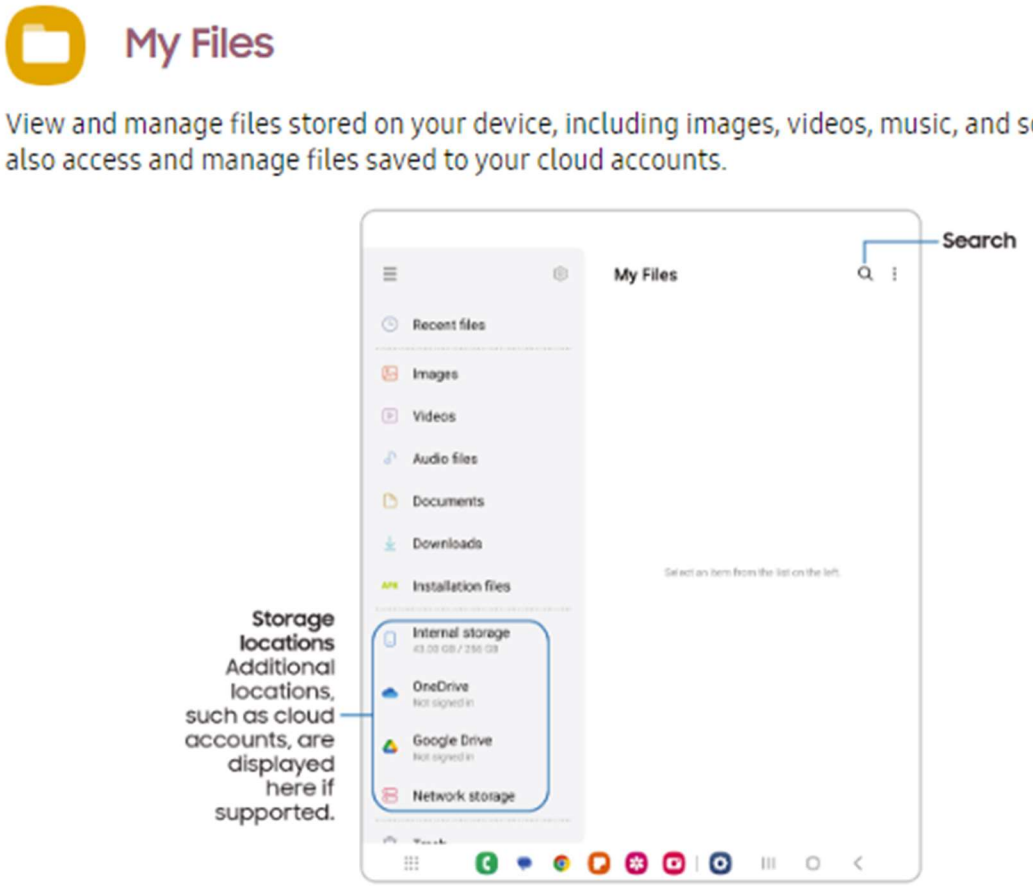
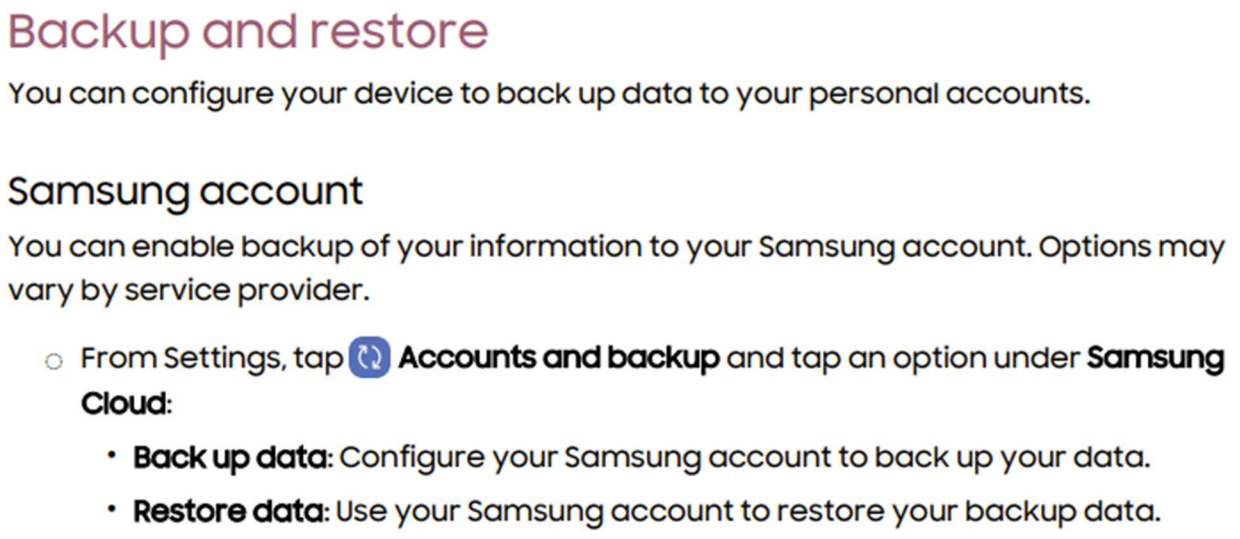
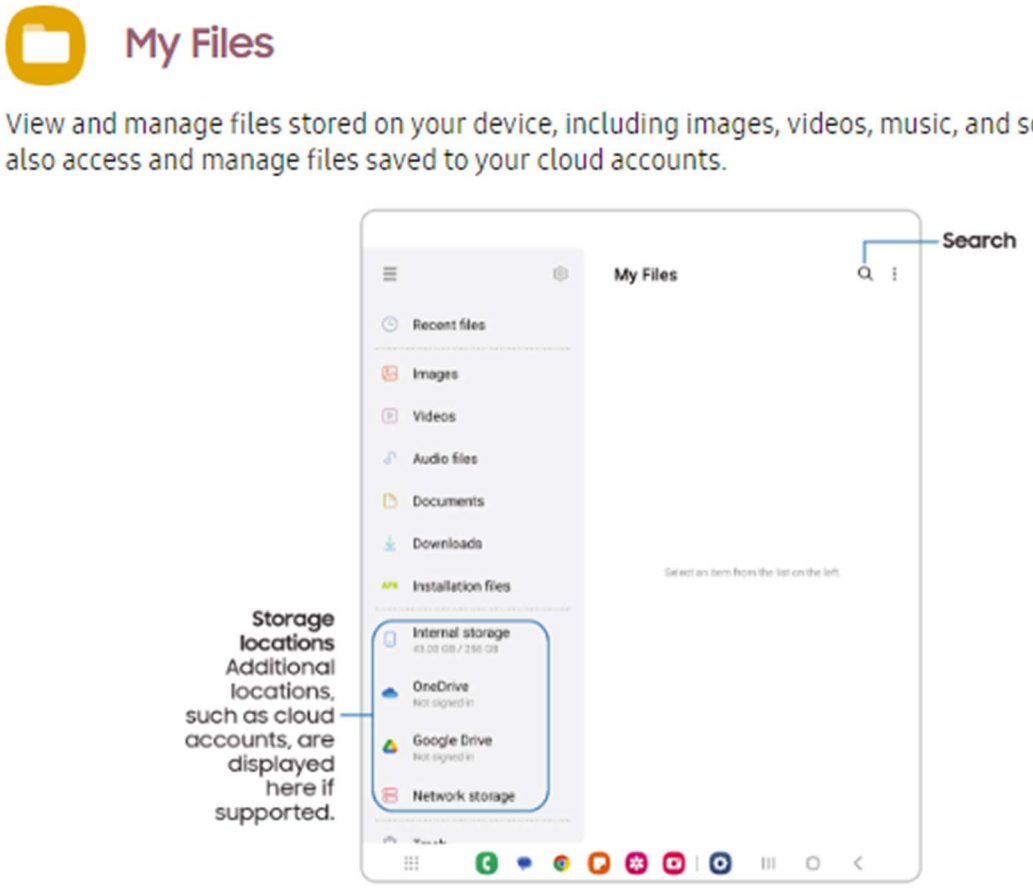
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy S23 Ultra technical specifications; https://downloadcenter.samsung.com/content/UM/202302/20230228053129621/SAM_S911_S916_S918_EN_UM_OS13_020223_FINAL_AC_022023.pdf at 98.  *Id.* at 156.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
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U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy Z Fold4 technical specification; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/my_files_d1e6182.html#d1e13816.

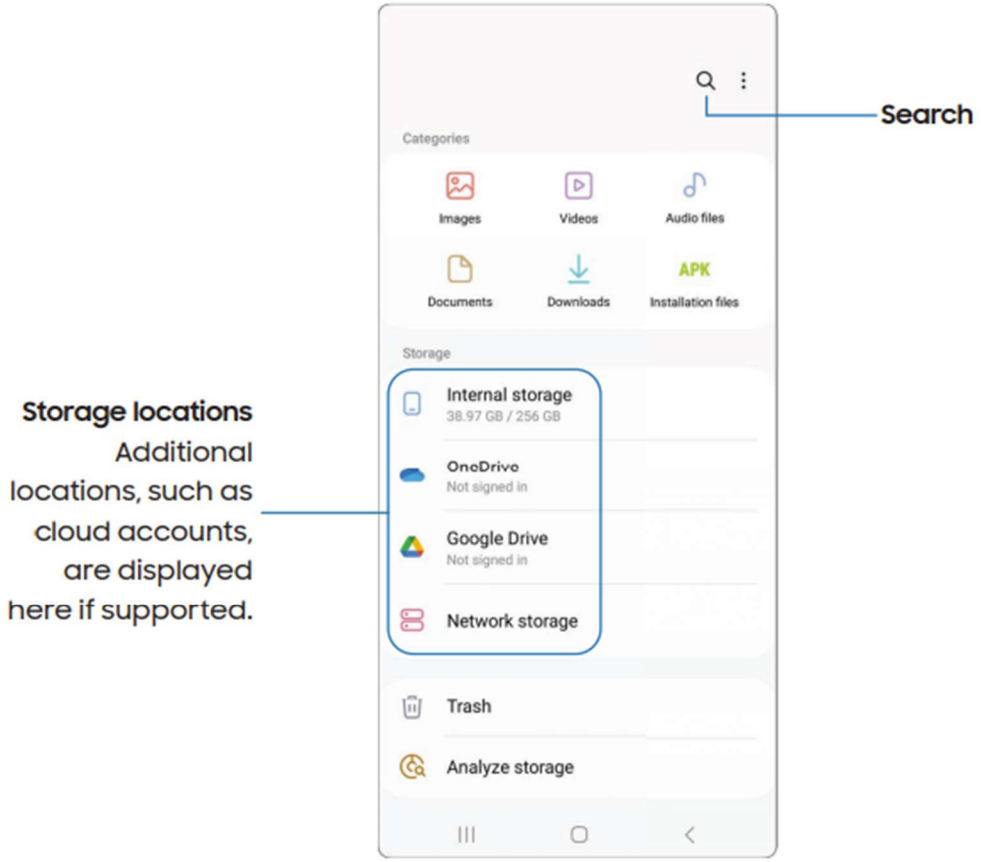
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy Z Fold4 technical specification; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/accounts_d1e10742.html.

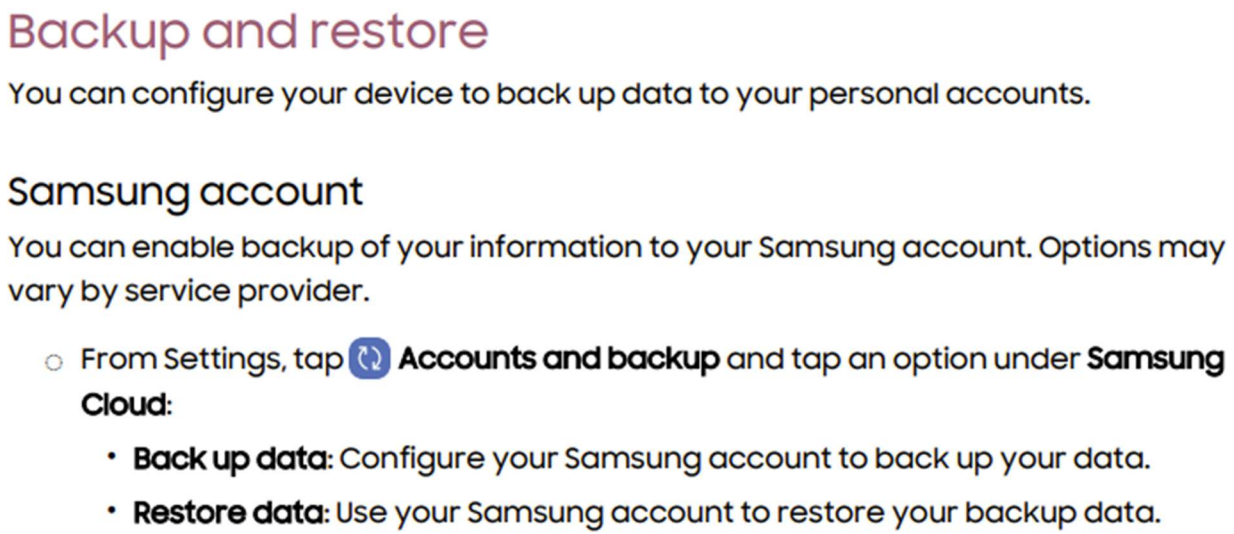
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U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy Z Flip4 technical specification; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/my_files_d1e6182.html#d1e13816.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
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U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	My Files View and manage files stored on your device, including images, videos, music, and sound clips. You can also access and manage files saved to your cloud accounts. 

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy A54 5G technical specification; https://downloadcenter.samsung.com/content/UM/202304/20230407022332214/SAM_A546_EN_UM_OS13_040523_FINAL.pdf at 79.  Backup and restore You can configure your device to back up data to your personal accounts. Samsung account You can enable backup of your information to your Samsung account. Options may vary by service provider. ○ From Settings, tap **Accounts and backup** and tap an option under **Samsung Cloud**: • **Back up data**: Configure your Samsung account to back up your data. • **Restore data**: Use your Samsung account to restore your backup data. *Id.* at 137–38.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

File groups

Files stored in the device are organized into the following groups:

- **Recent files**: View recently accessed files.
  - This option is displayed if one or more files have been accessed recently.
- **Categories**: View your files based on the file type.
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  - Cloud accounts vary depending on the services you sign in to.
- **Analyze storage**: See what's taking up space in your storage.

My Files settings

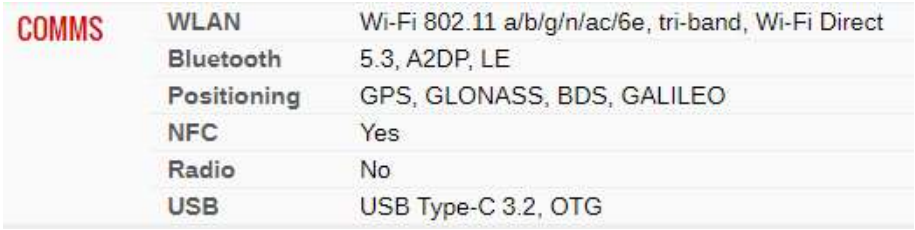
Use My Files settings to customize your file management options and more. Options may vary by service provider.

- From **My Files**, tap **More options** > **Settings** for the following options:
  - **Cloud accounts**: Connect to and manage your cloud services.
  - **File management**: Customize how files are displayed, deleted, and access mobile data.
  - **Analyze storage**: Choose a file size to flag when analyzing storage.
  - **Privacy**: View the permissions for My Files.

Id. at 80.

See also Appendix 8 showing that the remaining Accused Samsung '757 Products' have external storage connected to the image recording device. Specifically, the remaining Accused Samsung '757 Products, including Galaxy smartphones and Galaxy tablets connect to Samsung Cloud and/or One

<table>
<tr><th>U.S. Patent No. 11,223,757</th><th>Exemplary Evidence of Infringement</th></tr>
<tr><td></td><td>Drive, external storage devices, to store still-images. See https://www.samsung.com/in/support/mobile-devices/galaxy-smartphones-back-up-the-gallery-app-to-samsung-cloud/.</td></tr>
<tr><td>[9] The image recording device according to claim 1, further comprising, a communication unit including circuitry and configured to perform communication with a server device on the Internet, wherein the recorder is configured to record the first image signal input from the first camera or the second image signal from the second camera in the server device through the communication unit.</td><td>Each of the Accused Samsung '757 Products includes communication unit including circuitry and configured to perform communication with a server device on the Internet, wherein the recorder is configured to record the first image signal input from the first camera or the second image signal from the second camera in the server device through the communication unit. See e.g., Technical Specifications of each of the Accused Samsung '757 Products available at Samsung's website showing that each of the devices includes a communication unit including circuitry and configured to perform communication with a server device on the Internet, wherein the recorder is configured to record the first image signal input from the first camera or the second image signal from the second camera in the server device through the communication unit (https://www.samsung.com/us/mobile/ and https://www.samsung.com/us/tablets/).

As a non-limiting example of a communication unit, each of the Accused Samsung '757 Products is a smartphone and/or tablet having a Wi-Fi chipset to communicate with a server device on the Internet. For example, the Accused Samsung '757 Products are smartphones and/or tablets that include a Wi-Fi chipset to communicate with a server device, such as Samsung Cloud and/or One Drive on the Internet:
 

Galaxy S23 Ultra technical specifications; https://www.gsmarena.com/samsung_galaxy_s23_ultra-12024.php.</td></tr>
</table>

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

Wi-Fi

Turn on the Wi-Fi feature to connect to a Wi-Fi network and access the internet or other network devices.

Connecting to a Wi-Fi network

1 On the Settings screen, tap **Connections** → **Wi-Fi** and tap the switch to turn it on.

2 Select a network from the Wi-Fi networks list.
Networks with a lock icon require a password.

- Once the device connects to a Wi-Fi network, the device will reconnect to that network each time it is available without requiring a password. To prevent the device from connecting to the network automatically, tap ⚙ next to the network and tap the **Auto reconnect** switch to turn it off. To delete the saved connection information for a network, tap ⚙ next to the network and tap **Forget**.
- If you cannot connect to a Wi-Fi network properly, restart your device's Wi-Fi feature or the wireless router.

Checking out the Wi-Fi network quality information

Check out the Wi-Fi network quality information, such as the speed and stability.

On the Settings screen, tap **Connections** → **Wi-Fi** and tap the switch to turn it on. The network quality information will appear under the Wi-Fi networks. If it does not appear, tap ⋮ → **Intelligent Wi-Fi** and tap the **Show network quality info** switch to turn it on.

The quality information may not appear depending on the Wi-Fi network.

Sharing Wi-Fi network passwords

If you make a request to a person who is connected to a secured Wi-Fi network to share its password, you can connect to the network without entering the password. This feature is available between devices that have each other's contacts and the screen of the other device must be turned on.

1 On the Settings screen, tap **Connections** → **Wi-Fi** and tap the switch to turn it on.

2 Select a network from the Wi-Fi networks list.

3 Tap **Request password**.

4 Accept the share request on the other device.
The Wi-Fi password is entered on your device and it is connected to the network.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Wi-Fi Direct Wi-Fi Direct connects devices directly through a Wi-Fi network without requiring an access point. 1 On the Settings screen, tap **Connections** → **Wi-Fi** and tap the switch to turn it on. 2 Tap ⋮ → **Wi-Fi Direct**. The detected devices are listed. If the device you want to connect to is not in the list, turn on its Wi-Fi Direct feature. 3 Select a device to connect to. The devices will be connected when the other device accepts the Wi-Fi Direct connection request. To end the device connection, select the device to disconnect from the list. Galaxy S23 Series User Guide at pgs. 123-124.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Advanced Wi-Fi settings You can configure connections to various types of Wi-Fi networks and hotspots, manage saved networks and look up your device's network addresses. Options may vary by service provider. 1. From Settings, tap **Connections** > **Wi-Fi**, and then tap to turn on Wi-Fi. 2. Tap **More options** > **Advanced settings** for the following options: • **Sync with Samsung Cloud/account**: Sync Wi-Fi profiles with your Samsung account. • **Show Wi-Fi pop-up**: Alert me that Wi-Fi is available when opening apps. • **Network notification /Wi-Fi notifications**: Receive notifications when open networks in range are detected. • **Manage networks**: View saved Wi-Fi networks and configure whether to auto reconnect to or forget individual networks. • **Wi-Fi on/off history**: View apps that have recently turned your Wi-Fi on or off. • **Hotspot 2.0**: Connect automatically to Wi-Fi networks that support Hotspot 2.0. • **Install network certificates**: Install authentication certificates. Galaxy S23 Ultra technical specification; https://downloadcenter.samsung.com/content/UM/202302/20230228053129621/SAM_S911_S916_S918_EN_UM_OS13_020223_FINAL_AC_022023.pdf at 122.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

COMMS		
	WLAN	Wi-Fi 802.11 a/b/g/n/ac/6e, dual-band, Wi-Fi Direct
	Bluetooth	5.2, A2DP, LE, aptX HD
	Positioning	GPS, GLONASS, GALILEO, BDS
	NFC	Yes
	Radio	No
	USB	USB Type-C 3.2, OTG

Galaxy Z Fold4 technical specifications; https://www.gsmarena.com/samsung_galaxy_z_fold4-11737.php.

Wi-Fi

You can connect your device to a Wi-Fi network to access the Internet without using your mobile data.

1. From Settings, tap Connections > Wi-Fi, and then tap to turn on Wi-Fi and scan for available networks.
2. Tap a network, and enter a password if required.
3. Tap Connect.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

Connect to a hidden Wi-Fi network

If the Wi-Fi network you want is not listed after a scan, you can still connect to it by entering the information manually. Ask the Wi-Fi network administrator for the name and password before you begin.

1. From Settings, tap **Connections** > **Wi-Fi**, and then tap to turn on Wi-Fi.
2. Tap **Add network** at the bottom of the list.
3. Enter information about the Wi-Fi network:
   - **Network name:** Type the exact name of the network.
   - **Security:** Select a security option from the list, and enter the password if required.
   - **Password:** Enter the network password.
   - **Hidden network:** Add a hidden network.
   - **View more:** Define other advanced options, such as IP and Proxy settings.
4. Tap **Save**.

TIP Tap **Scan QR code** to connect to a Wi-Fi network by using your device's camera to scan a QR code.

Wi-Fi Direct

Wi-Fi Direct uses Wi-Fi to share data between devices.

1. From Settings, tap **Connections** > **Wi-Fi**, and then tap to turn on Wi-Fi.
2. Tap **More options** > **Wi-Fi Direct**.
3. Tap a device, and then follow the prompts to connect.

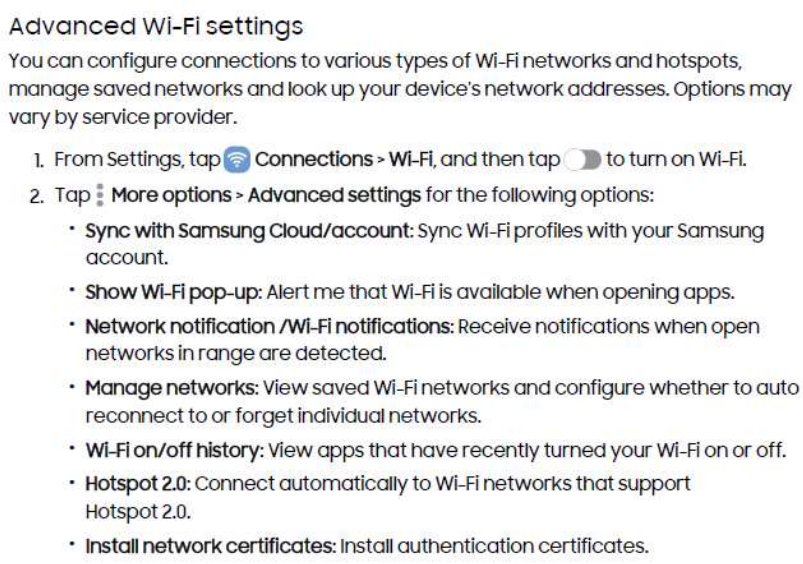
Disconnect from Wi-Fi Direct

Disconnect your device from a Wi-Fi Direct device.

- From Settings, tap **Connections** > **Wi-Fi** > **More options** > **Wi-Fi Direct**. Tap a device to disconnect it.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Intelligent Wi-Fi settings You can configure connections to various types of Wi-Fi networks and hotspots, manage saved networks and look up your device's network addresses. Options may vary by service provider. 1. From Settings, tap Connections > Wi-Fi, and then tap to turn on Wi-Fi. 2. Tap More options > Intelligent Wi-Fi for the following options: • **Switch to mobile data:** When enabled, your device will switch to mobile data whenever the Wi-Fi connection is unstable. When the Wi-Fi signal is strong, it switches back to Wi-Fi. • **Switch to better Wi-Fi networks:** Automatically switch to faster or more stable Wi-Fi networks. • **Turn Wi-Fi on/off automatically:** Turn on Wi-Fi in frequently-used locations. • **Show network quality info:** Display network information (such as speed and stability) in the list of available Wi-Fi networks. • **Prioritize real-time data:** Give network priority to games, video calls, and other tasks that are sensitive to lag. • **Detect suspicious networks:** Get notified when suspicious activity is detected on the current Wi-Fi network. • **Wi-Fi power saving mode:** Enable Wi-Fi traffic analysis to reduce battery usage. • **Auto Hotspot connection:** Automatically connect to a Wi-Fi hotspot when detected. • **Intelligent Wi-Fi:** View the Intelligent Wi-Fi version.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

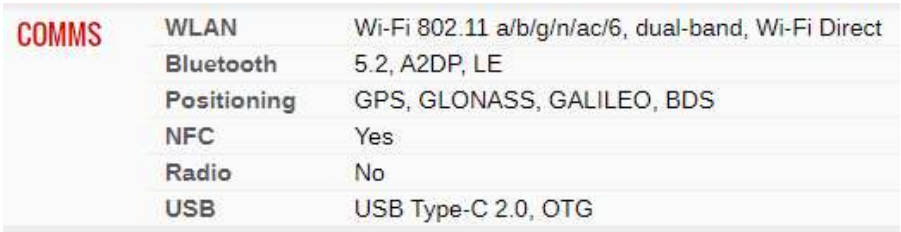


Advanced Wi-Fi settings

You can configure connections to various types of Wi-Fi networks and hotspots, manage saved networks and look up your device's network addresses. Options may vary by service provider.

1. From Settings, tap Connections > Wi-Fi, and then tap to turn on Wi-Fi.
2. Tap More options > Advanced settings for the following options:
   - **Sync with Samsung Cloud/account:** Sync Wi-Fi profiles with your Samsung account.
   - **Show Wi-Fi pop-up:** Alert me that Wi-Fi is available when opening apps.
   - **Network notification /Wi-Fi notifications:** Receive notifications when open networks in range are detected.
   - **Manage networks:** View saved Wi-Fi networks and configure whether to auto reconnect to or forget individual networks.
   - **Wi-Fi on/off history:** View apps that have recently turned your Wi-Fi on or off.
   - **Hotspot 2.0:** Connect automatically to Wi-Fi networks that support Hotspot 2.0.
   - **Install network certificates:** Install authentication certificates.

Galaxy Z Fold4 User Guide at pgs. 120-123; *see also* https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/interaction_and_dexterity_d1e11982.html#d1e13816.



COMMS	WLAN	Wi-Fi 802.11 a/b/g/n/ac/6, dual-band, Wi-Fi Direct
	Bluetooth	5.2, A2DP, LE
	Positioning	GPS, GLONASS, GALILEO, BDS
	NFC	Yes
	Radio	No
	USB	USB Type-C 2.0, OTG

Galaxy Z Flip4 technical specifications; https://www.gsmarena.com/samsung_galaxy_z_flip4-11538.php.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Wi-Fi You can connect your device to a Wi-Fi network to access the Internet without using your mobile data. 1. From Settings, tap Connections > Wi-Fi, and then tap to turn on Wi-Fi and scan for available networks. 2. Tap a network, and enter a password if required. 3. Tap Connect.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

Connect to a hidden Wi-Fi network

If the Wi-Fi network you want is not listed after a scan, you can still connect to it by entering the information manually. Ask the Wi-Fi network administrator for the name and password before you begin.

1. From Settings, tap **Connections** > **Wi-Fi**, and then tap to turn on Wi-Fi.
2. Tap **Add network** at the bottom of the list.
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Disconnect your device from a Wi-Fi Direct device.

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U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
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Galaxy Z Flip4 User Guide at pgs. 120-123; *see also* https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/interaction_and_dexterity_d1e11982.html#d1e13816.

Connectivity

Wi-Fi Connectivity

802.11 a/b/g/n/ac/ax 2.4G+5GHz, HE80, MIMO, 1024-QAM

COMMS	WLAN	Wi-Fi 802.11 a/b/g/n/ac/6, dual-band, Wi-Fi Direct
	Bluetooth	5.3, A2DP, LE
	Positioning	GPS, GLONASS, GALILEO, BDS
	NFC	Yes (market/region dependent)
	Radio	No
	USB	USB Type-C 2.0, OTG

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Samsung Galaxy A54 5G technical specifications; Galaxy A54 5G, 128GB (Unlocked) Phones - SM-A546UZKBXAA | Samsung US; https://www.gsmarena.com/samsung_galaxy_a54-12070.php. Wi-Fi You can connect your device to a Wi-Fi network to access the Internet without using your mobile data. 1. From Settings, tap Connections > Wi-Fi, and then tap to turn on Wi-Fi and scan for available networks. 2. Tap a network, and enter a password if required. 3. Tap Connect.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

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   - **Show network quality info:** Display network information (such as speed and stability) in the list of available Wi-Fi networks.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	• **Detect suspicious networks:** Get notified when suspicious activity is detected on the current Wi-Fi network. • **Auto Hotspot connection:** Automatically connect to a Wi-Fi hotspot when detected. • **Intelligent Wi-Fi:** View the Intelligent Wi-Fi version. Advanced Wi-Fi settings You can configure connections to various types of Wi-Fi networks and hotspots, manage saved networks and look up your device's network addresses. Options may vary by service provider. 1. From Settings, tap **Connections** > **Wi-Fi**, and then tap to turn on Wi-Fi. 2. Tap **More options** > **Advanced settings** for the following options: • **Sync with Samsung Cloud/account:** Sync Wi-Fi profiles with your Samsung account. • **Show Wi-Fi pop-up:** Alert me that Wi-Fi is available when opening apps. • **Network notification /Wi-Fi notifications:** Receive notifications when open networks in range are detected. • **Manage networks:** View saved Wi-Fi networks and configure whether to auto reconnect to or forget individual networks. • **Wi-Fi on/off history:** View apps that have recently turned your Wi-Fi on or off. • **Hotspot 2.0:** Connect automatically to Wi-Fi networks that support Hotspot 2.0. • **Install network certificates:** Install authentication certificates. Wi-Fi Direct Wi-Fi Direct uses Wi-Fi to share data between devices. 1. From Settings, tap **Connections** > **Wi-Fi**, and then tap to turn on Wi-Fi. 2. Tap **More options** > **Wi-Fi Direct**. 3. Tap a device, and then follow the prompts to connect. Disconnect from Wi-Fi Direct Disconnect your device from a Wi-Fi Direct device. ○ From Settings, tap **Connections** > **Wi-Fi** > **More options** > **Wi-Fi Direct**. Tap a device to disconnect it.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy A54 5G User Guide at pgs. 100-103; *see also* https://downloadcenter.samsung.com/content/UM/202304/20230407022332214/SAM_A546_EN_UM_OS13_040523_FINAL.pdf at 102. Further, as a non-limiting example of the recorder and communication unit, each of the Accused Samsung '757 Products is a smartphone and/or tablet having one or more processors (chipset), as the controller, configured to record or sync the first image signal input from the front facing camera or the second image signal from the rear facing camera on Samsung cloud and/or One Drive, as backup drives, via the Wi-Fi chipset:

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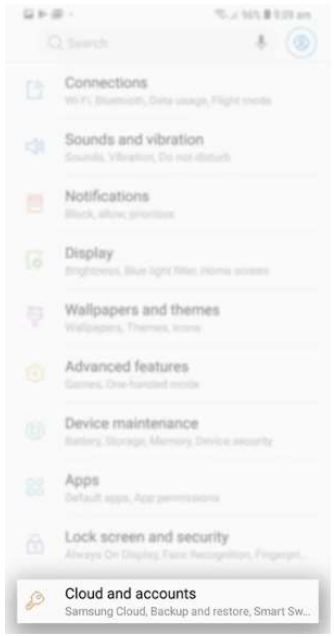
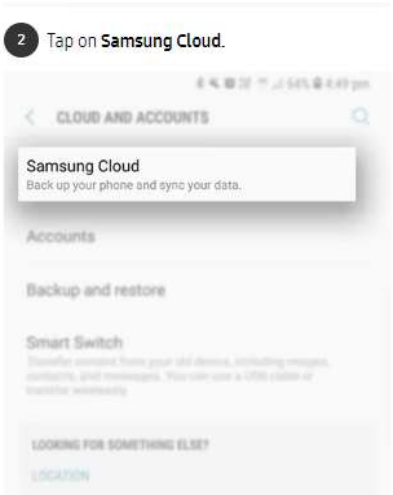
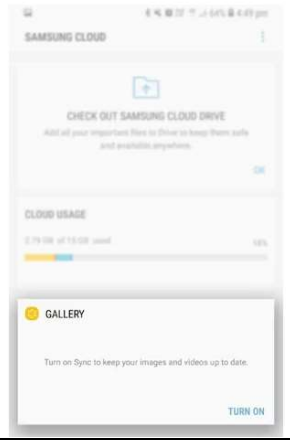
Galaxy Smartphones: Back Up the Gallery app to Samsung Cloud

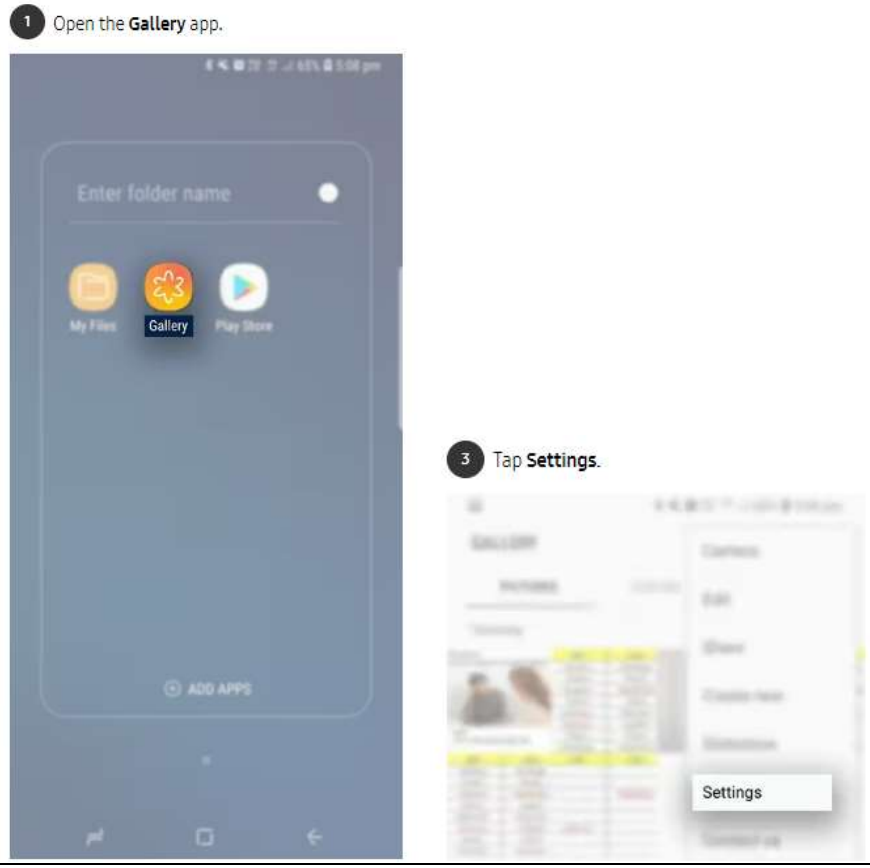
Last Update date : Oct 29, 2020

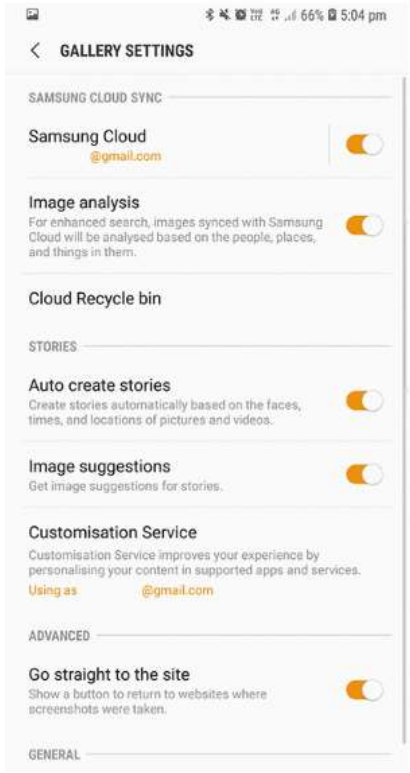


Turn on Gallery Sync in the Samsung Gallery app to make sure your photos are all saved and backed up. Your precious moments will be right there when you need it in the Samsung Cloud, and if anything ever happens to your mobile device or tablet, your photos will be safe and sound.

From the **Samsung Galaxy S9** running **Android OS Version 8.0 (Oreo)**, the **Gallery sync** option is disabled by default. If the Gallery sync option has been disabled, images which have been already uploaded to Samsung Cloud, will not be displayed in your Gallery until the Gallery sync option has been enabled.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	1 Go into the **Settings** menu > **Cloud and accounts**.  2 Tap on **Samsung Cloud**.  3 In the Gallery tile, tap on **Turn on** to enable Gallery sync. 

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	https://www.samsung.com/in/support/mobile-devices/galaxy-smartphones-back-up-the-gallery-app-to-samsung-cloud/ 

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	4 Toggle the switch to enable Gallery sync.  https://www.samsung.com/in/support/mobile-devices/galaxy-smartphones-back-up-the-gallery-app-to-samsung-cloud/

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

Access and manage the Cloud from a Galaxy phone or tablet

Note: All data stored in Samsung Cloud will be deleted if it has not been used for more than 12 months. This includes data stored in its respective category, such as contacts, calendar, and more. You will not be able to recover that specific data; however, Samsung will provide an advanced notice prior to deletion. To prevent your files from being deleted, **sync your data**.

Samsung Cloud is integrated directly into your Samsung account, so you can access it easily from your phone or tablet's settings.

1. Navigate to and open **Settings**.
2. Tap **your name** at the top of the screen, and then tap **Samsung Cloud**.
3. From here, you can access the following options:



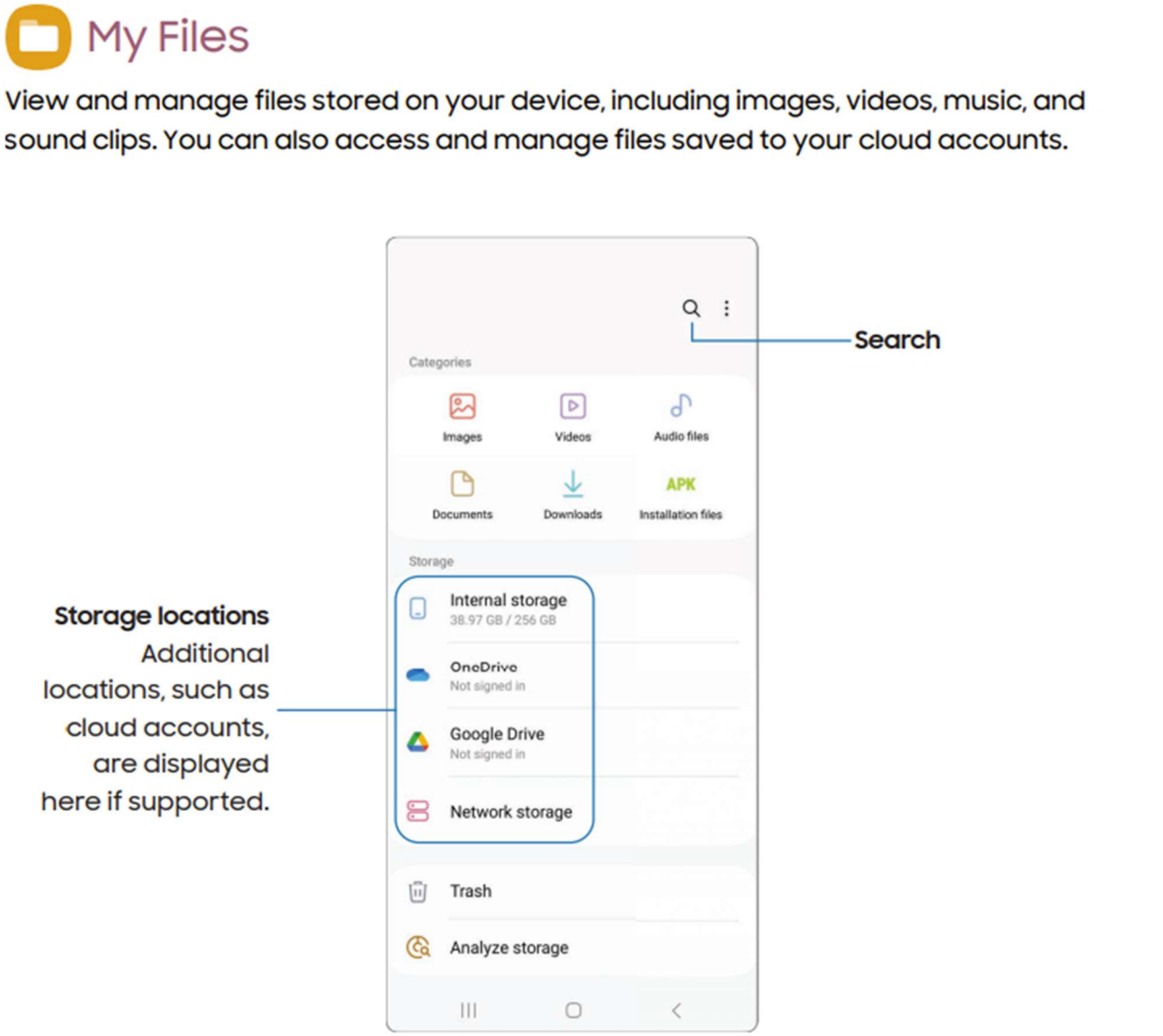
- **Sync:** Choose which apps or settings you'd like to **automatically sync** to Samsung Cloud, such as Contacts or Samsung Notes.
- **Back up data:** Create a **device backup** that you can access later in case something happens to your phone.
- **Restore:** Download a previous device backup to **restore data** you may have lost.

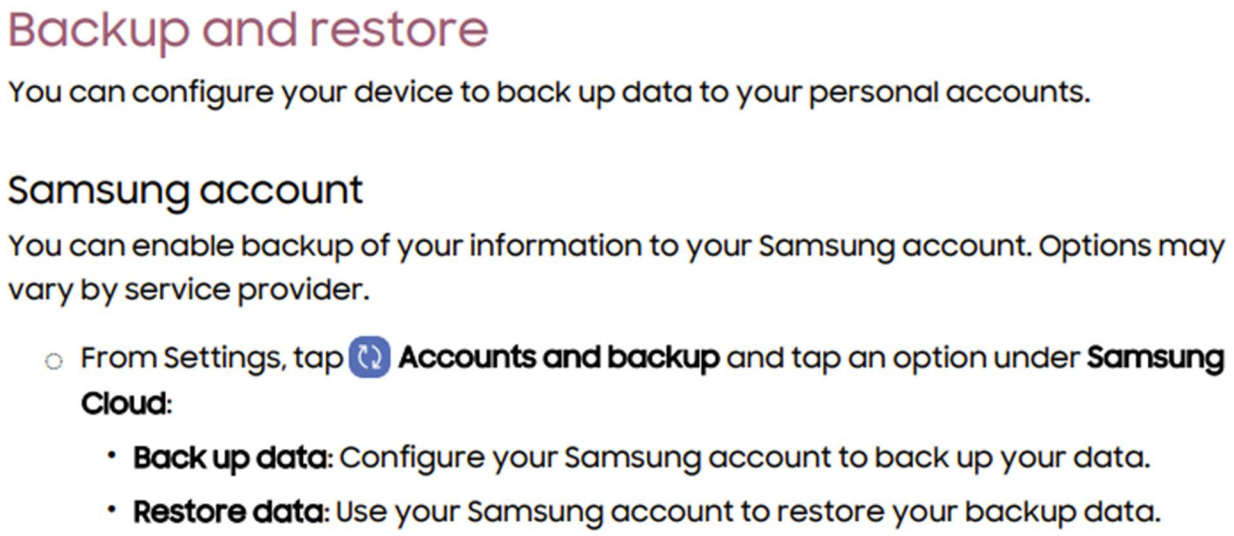
To make accessing Samsung Cloud easier, you can add a shortcut icon to your Apps screen. Tap **More options** (the three vertical dots) in the top right corner, then tap **Settings**. Next, tap the **switch** next to "Show Samsung Cloud on Apps screen."

https://www.samsung.com/us/support/answer/ANS00060518/

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Access the Cloud from a web browser on a PC  You can view your Cloud data on a PC using almost any web browser, but we recommend using Chrome for the best results. You will be guided through setting up and using 2-step verification for your Samsung account. If you are having any trouble signing in or accessing your data, please see the section about 2-step verification. 1. To access Samsung Cloud on your computer, open your desired web browser, and then go to **support.samsungcloud.com**. 2. Click **Sign in**, enter your Samsung account information, and then click **Sign in** again.  3. If you're unsure of your account information, click **Find ID or Reset password** after you click Sign in. 4. Once you are signed in, you can see all of your synced data. To make accessing Samsung Cloud easier, you can bookmark the URL in your browser by clicking the **Bookmark** (star) icon in the address bar. To sign out, just hover over your name in the upper right corner of the page, and then click **Sign out**. *See* https://www.samsung.com/us/support/answer/ANS00060518/

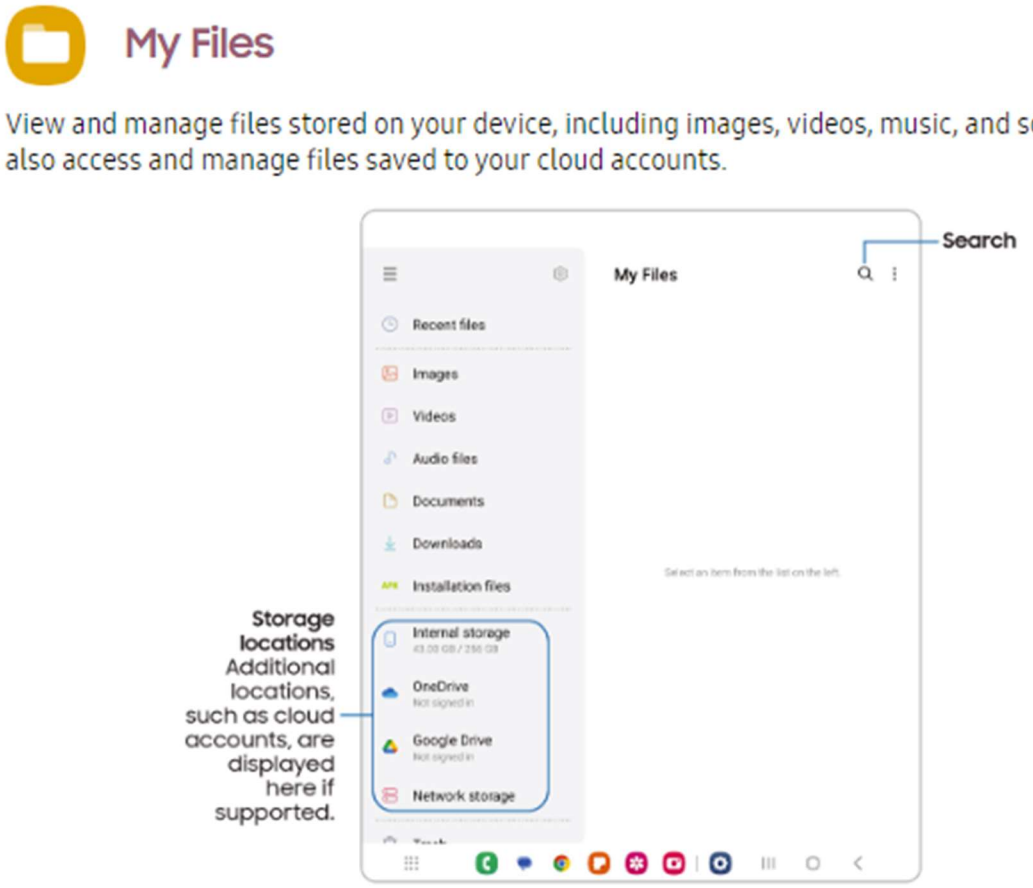
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Advanced Wi-Fi settings You can configure connections to various types of Wi-Fi networks and hotspots, manage saved networks and look up your device's network addresses. Options may vary by service provider. 1. From Settings, tap **Connections** > **Wi-Fi**, and then tap to turn on Wi-Fi. 2. Tap **More options** > **Advanced settings** for the following options: • **Sync with Samsung Cloud/account**: Sync Wi-Fi profiles with your Samsung account. • **Show Wi-Fi pop-up**: Alert me that Wi-Fi is available when opening apps. • **Network notification /Wi-Fi notifications**: Receive notifications when open networks in range are detected. • **Manage networks**: View saved Wi-Fi networks and configure whether to auto reconnect to or forget individual networks. • **Wi-Fi on/off history**: View apps that have recently turned your Wi-Fi on or off. • **Hotspot 2.0**: Connect automatically to Wi-Fi networks that support Hotspot 2.0. • **Install network certificates**: Install authentication certificates. Galaxy S23 Ultra technical specifications; https://downloadcenter.samsung.com/content/UM/202302/20230228053129621/SAM_S911_S916_S918_EN_UM_OS13_020223_FINAL_AC_022023.pdf at 122.

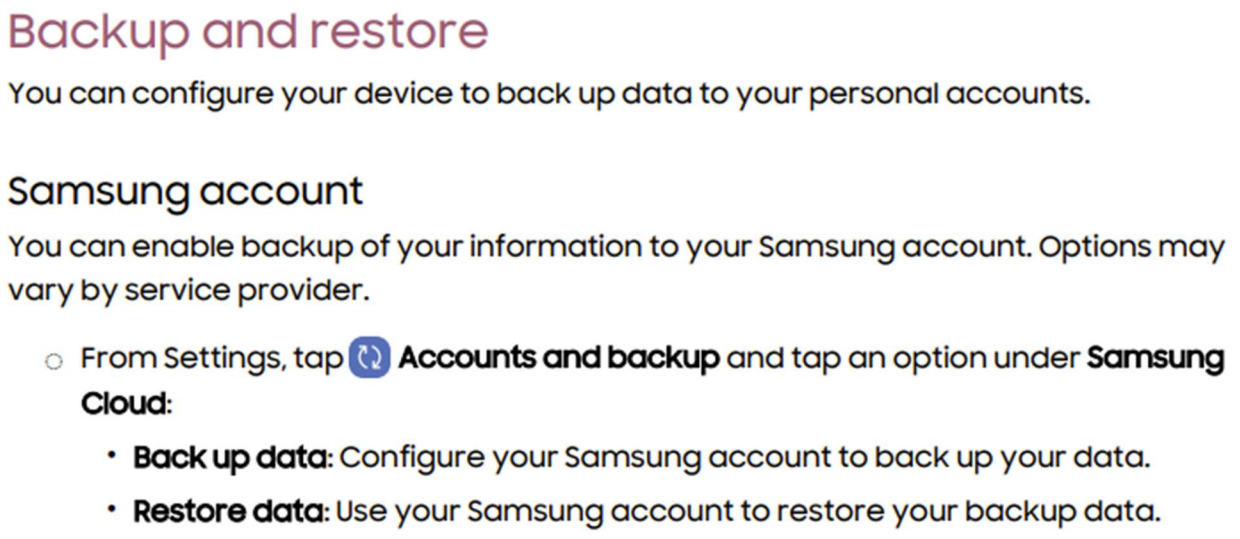
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Id. at 98.  *Id.* at 156.

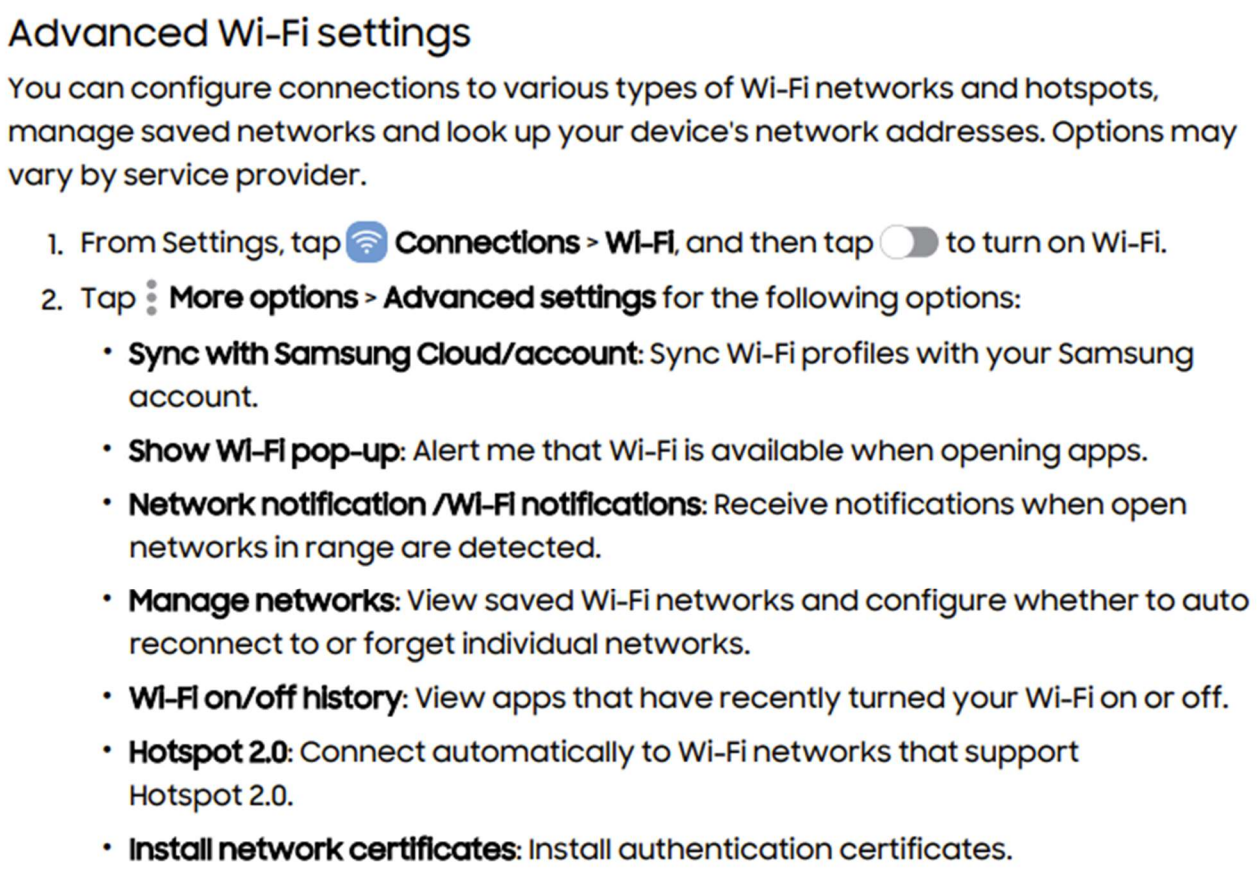
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	File groups Files stored in the device are organized into the following groups: • **Recent files**: View recently accessed files. – This option is displayed if one or more files have been accessed recently. • **Categories**: View your files based on the file type. • **Storage**: View files saved on your device and cloud accounts. – Cloud accounts vary depending on the services you sign in to. • **Analyze storage**: See what's taking up space in your storage. **My Files settings** Use My Files settings to customize your file management options and more. Options may vary by service provider. ○ From **My Files**, tap **More options** > **Settings** for the following options: • **Cloud accounts**: Connect to and manage your cloud services. • **File management**: Customize how files are displayed, deleted, and access mobile data. • **Analyze storage**: Choose a file size to flag when analyzing storage. • **Privacy**: View the permissions for My Files. *Id.* at 99.

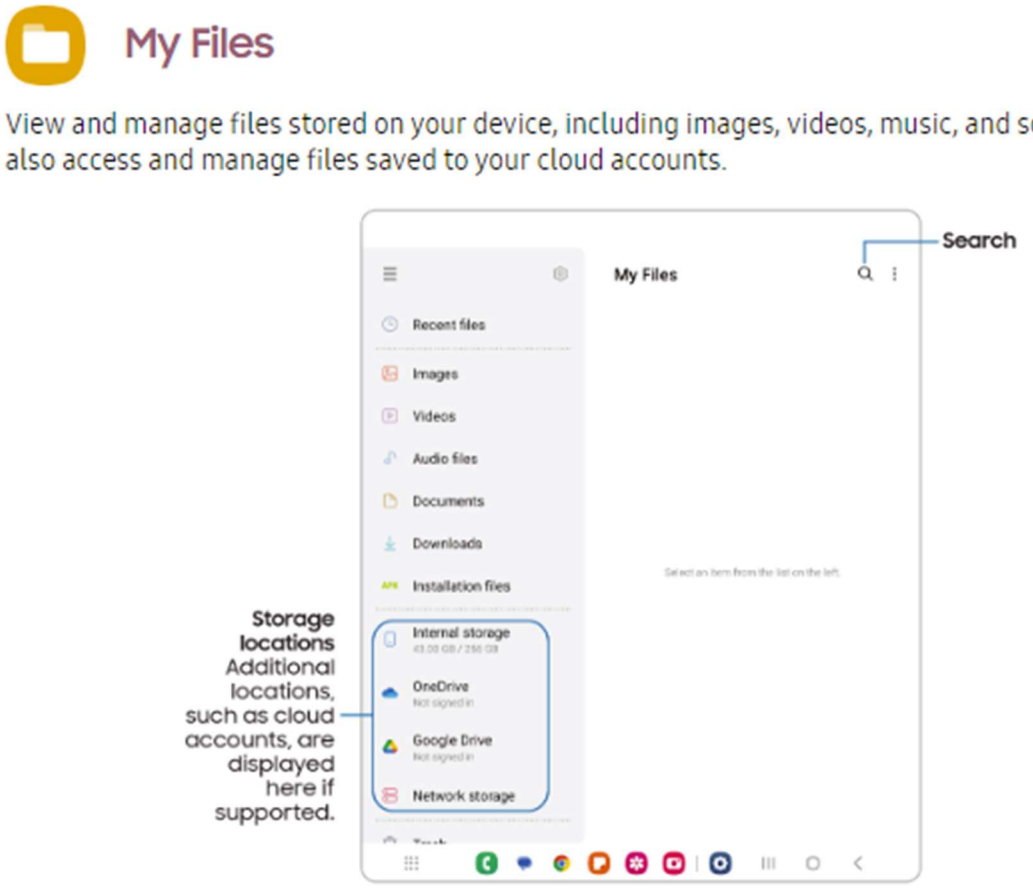
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
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U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy Z Fold4 technical specification; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/my_files_d1e6182.html#d1e13816.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy Z Fold4 technical specification; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/accounts_d1e10742.html.

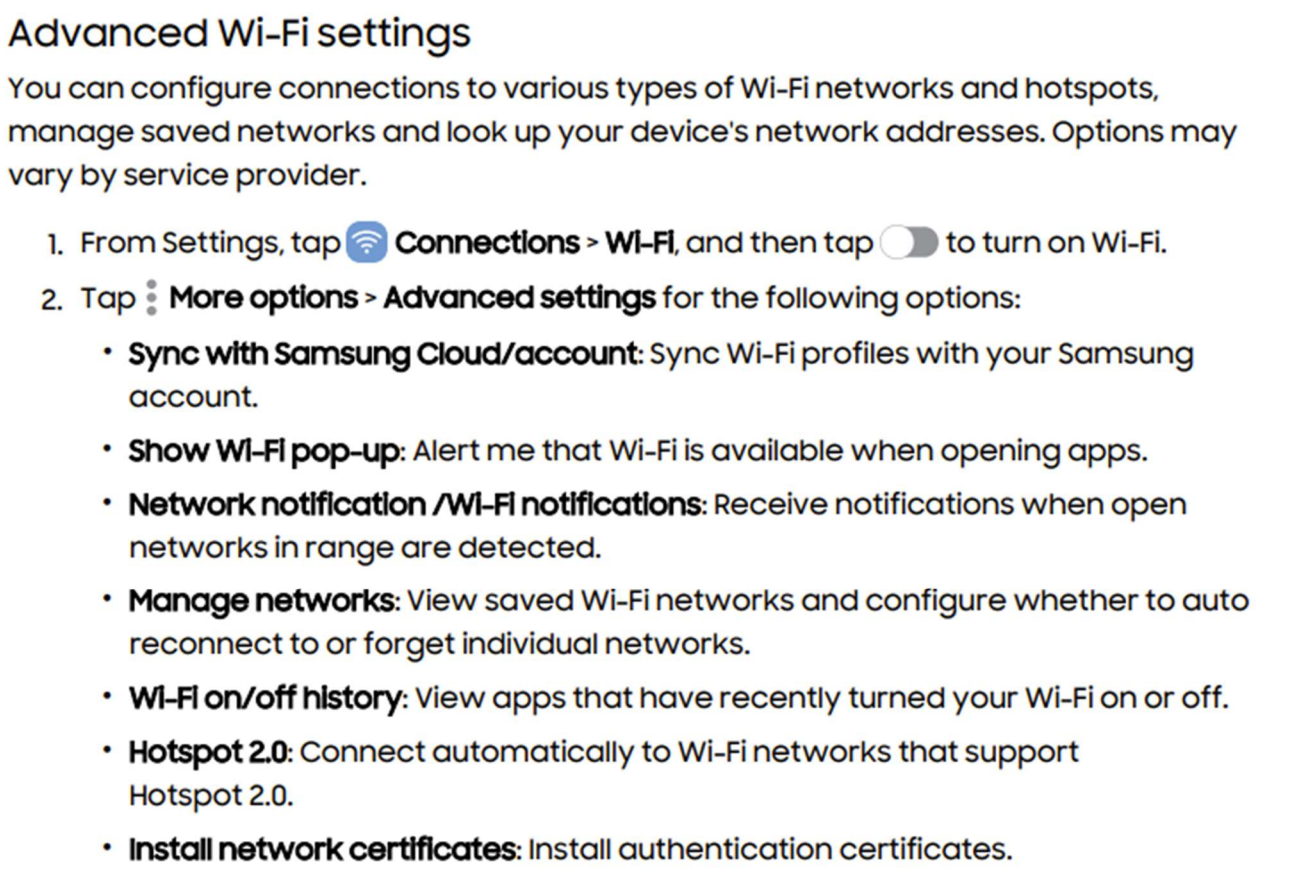
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
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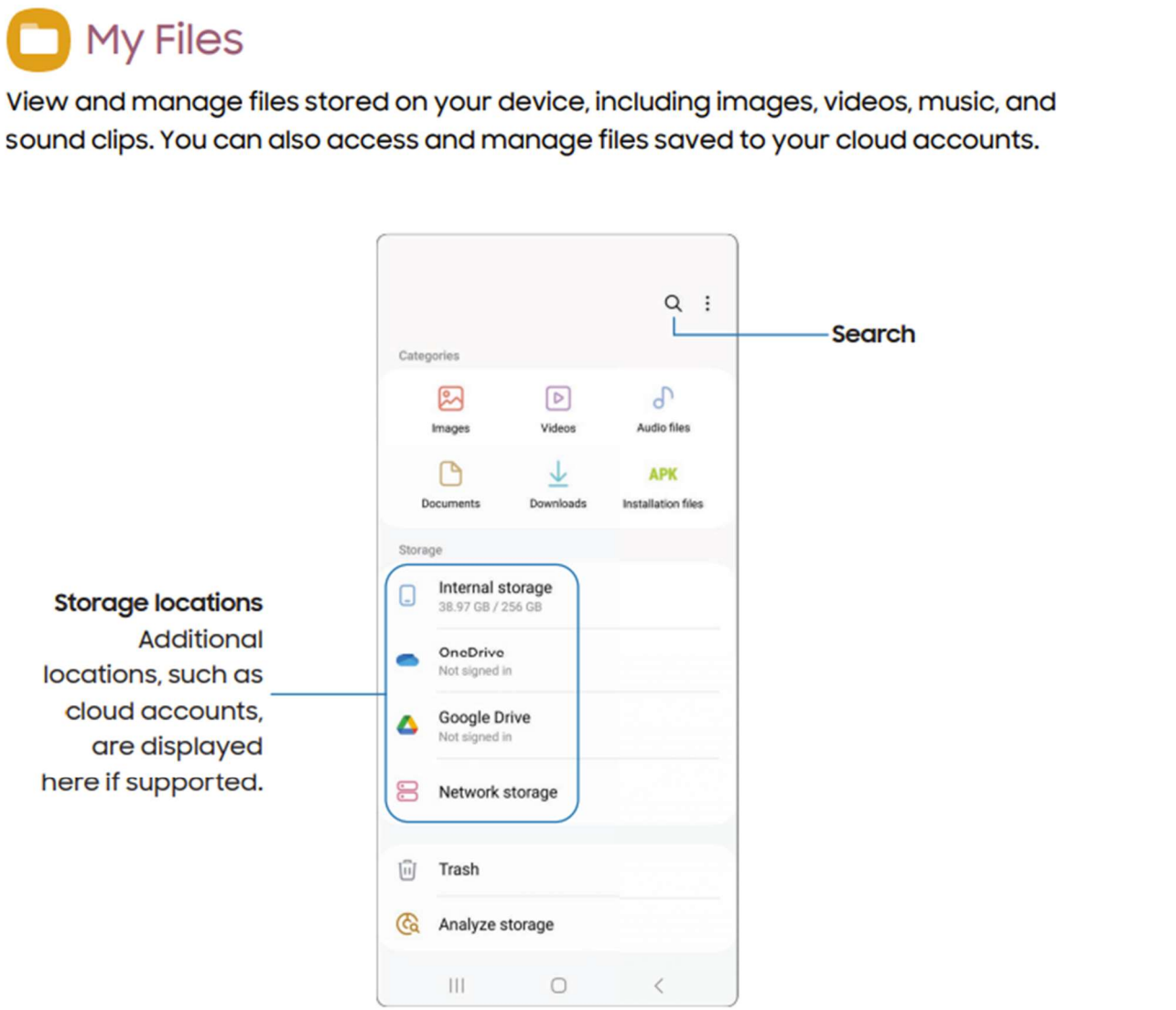
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy Flip4 technical specification; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/interaction_and_dexterity_d1e11982.html#d1e13816.

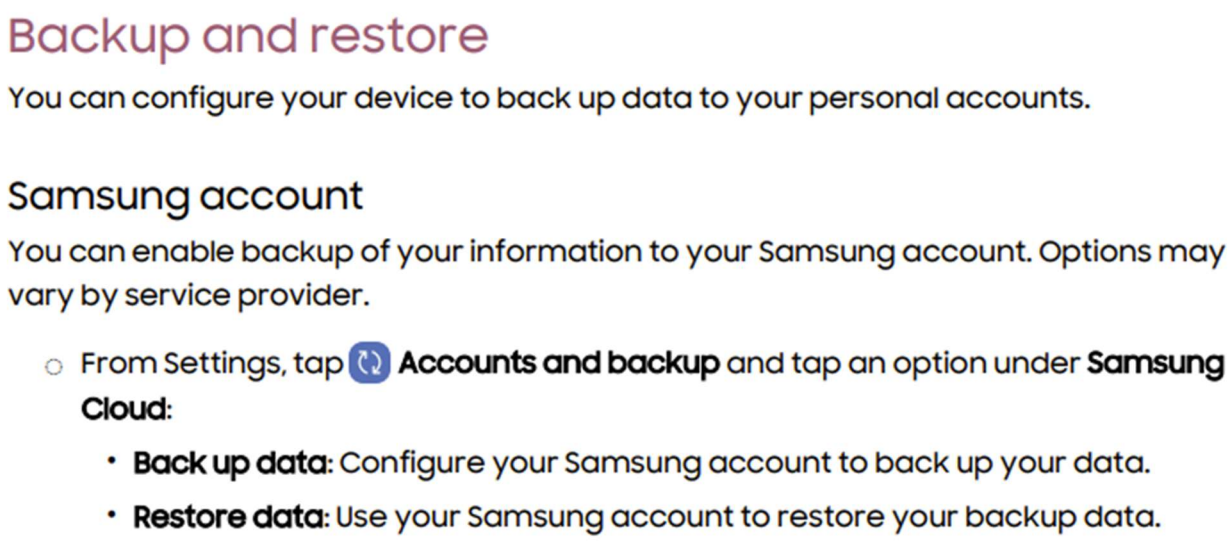
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy Z Flip4 technical specification; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/my_files_d1e6182.html#d1e13816.

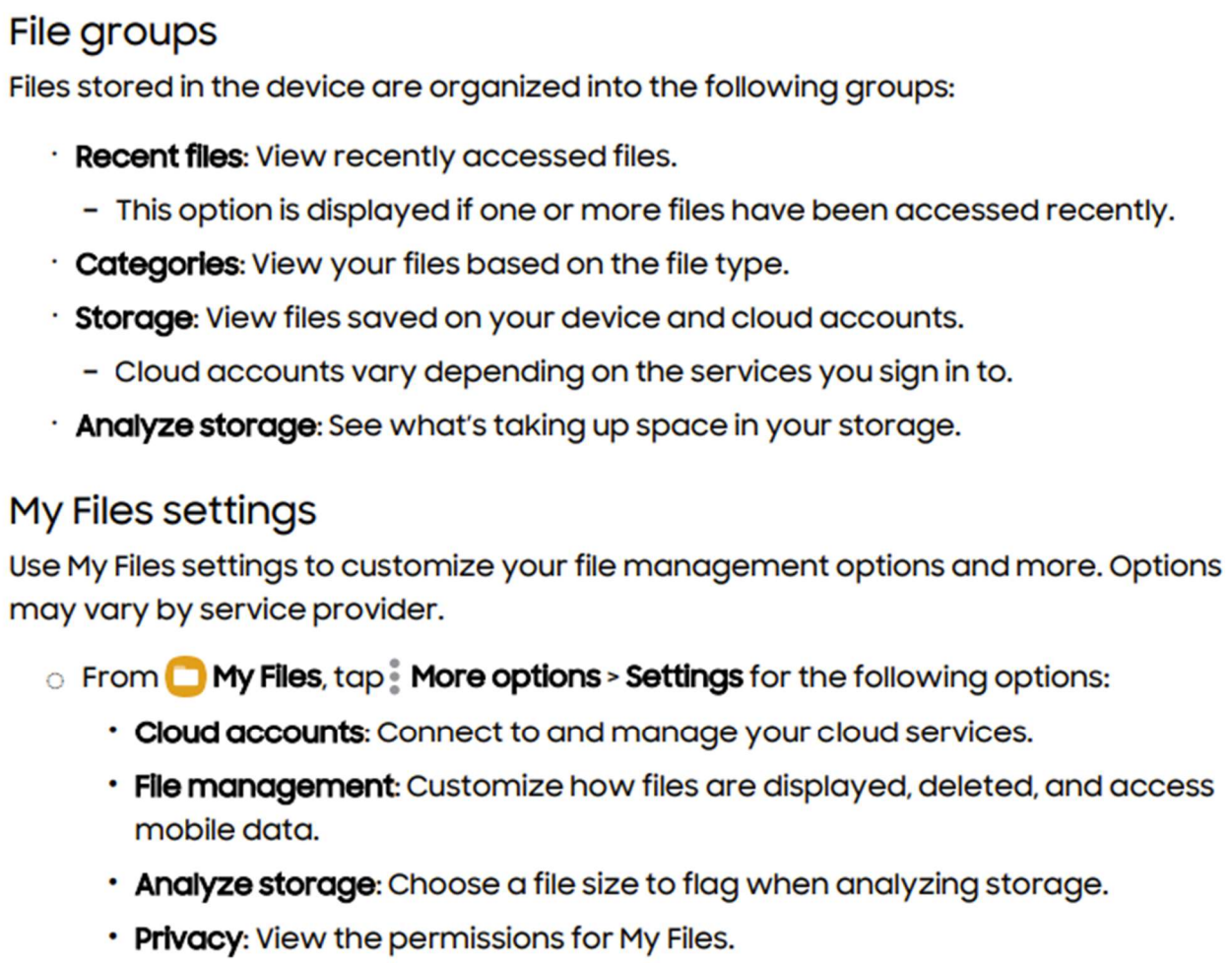
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy Z Flip4 technical specification; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/accounts_d1e10742.html.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
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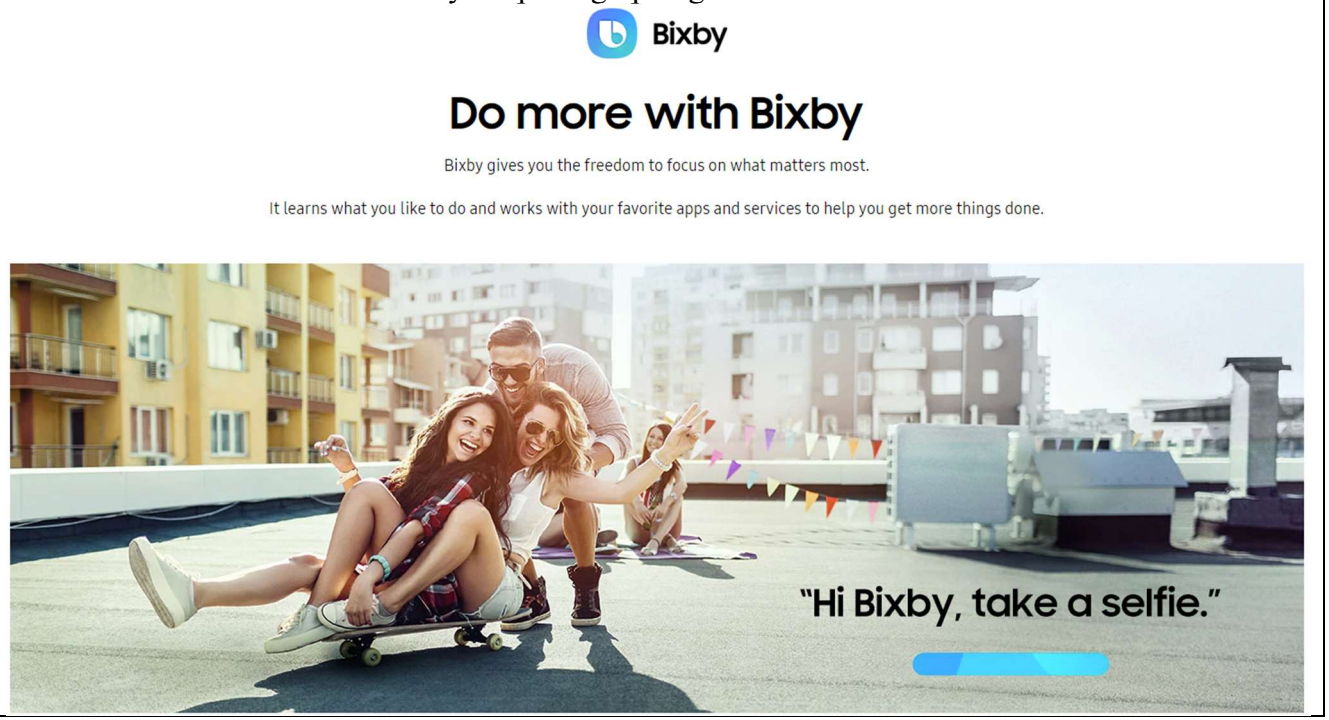
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy A54 5G technical specification; https://downloadcenter.samsung.com/content/UM/202304/20230407022332214/SAM_A546_EN_UM_OS13_040523_FINAL.pdf at 102.

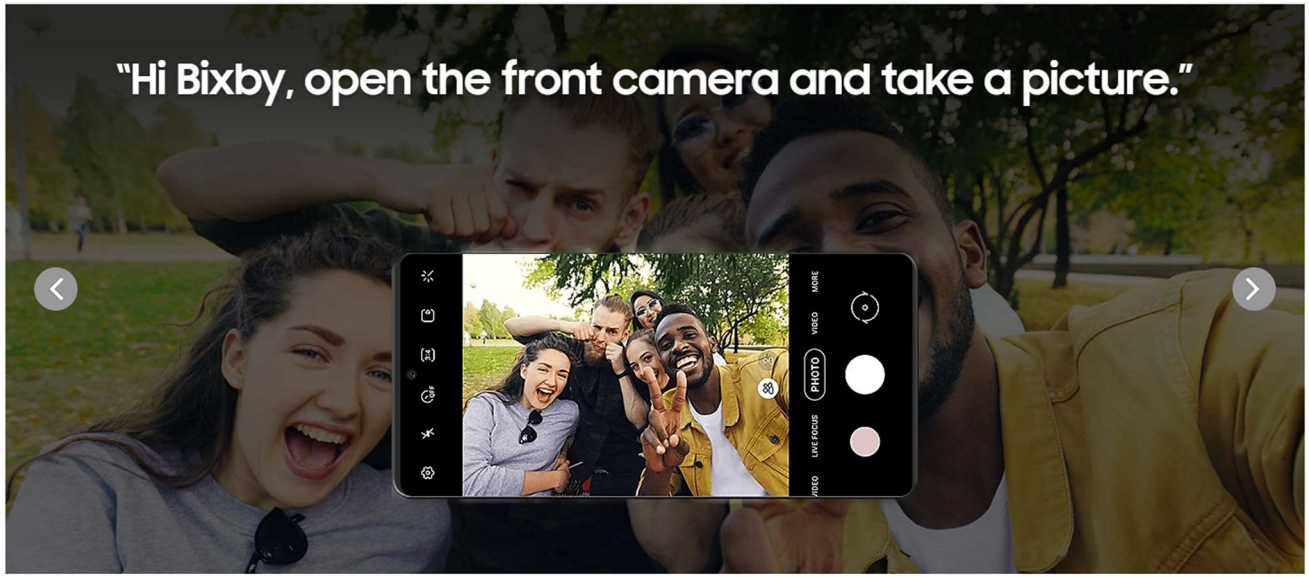
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 *Id.* at 79.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 *Id.* at 137–38.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 *Id.* at 80. *See also* Appendix 8 showing that the remaining Accused Samsung '757 Products' have a communication unit including circuitry and configured to perform communication with a server device on the Internet, and have the recorder configured to record the first image signal input from

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	the first camera or the second image signal from the second camera in the server device through the communication unit. Specifically, the remaining Accused Samsung '757 Products also include a Wi-Fi chipset and camera that work together to communicate with a server device such as Samsung Cloud. *See* https://www.samsung.com/in/support/mobile-devices/galaxy-smartphones-back-up-the-gallery-app-to-samsung-cloud/. Doctrine of Equivalents: To the extent Samsung argues that this limitation is not literally met in the Accused Samsung '757 Products, Maxell asserts that this limitation is met under the doctrine of equivalents because the identified structure matches the function, way, and result of the claimed element and, to the extent there is a difference, the difference is insubstantial. For example, to the extent that Samsung argues that the Accused Samsung '757 Products does not have a communication unit including circuitry and configured to perform communication with a server device on the Internet. Using software, hardware, or combination of the two, the Accused Samsung '757 Products perform substantially the same function (for example, perform communication with a server device on the internet to record the first image signal input or the second image signal) in substantially the same way as claimed (by using operation unit, video processing unit, communication processing unit, and/or main control unit). The performance of this function achieve substantially the same result, for example, sending a recording from the first camera or the second camera in the server device through the communication unit.
[10] The image recording device according to claim 1, further comprising, a command voice storage configured to store a command voice for instructing photographing, wherein the recorder is configured to perform control such that a command voice to be recorded in the command	In each of the Accused Samsung '757 Products, a command voice storage configured to store a command voice for instructing photographing, wherein the recorder is configured to perform control such that a command voice to be recorded in the command voice storage is received from the audio input interface and stored in the command voice storage as a command voice registration process, and in the first photographing process, the recorder determines that the command voice instructs the photographing when the command voice input to the audio input interface is identical to the command voice stored in the command voice storage, and determines that the command voice does not instruct the photographing when the command voice input to the audio input interface is not identical to the command voice stored in the command voice storage. *See e.g.*, Technical Specifications of each of the Accused Samsung '757 Products available at Samsung's website showing that each of the devices includes a command voice storage configured to store a command voice for instructing photographing, wherein the recorder is configured to perform control such that a

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
voice storage is received from the audio input interface and stored in the command voice storage as a command voice registration process, and in the first photographing process, the recorder determines that the command voice instructs the photographing when the command voice input to the audio input interface is identical to the command voice stored in the command voice storage, and determines that the command voice does not instruct the photographing when the command voice input to the audio input interface is not identical to the command voice stored in the command voice storage.	command voice to be recorded in the command voice storage is received from the audio input interface and stored in the command voice storage as a command voice registration process, and in the first photographing process, the recorder determines that the command voice instructs the photographing when the command voice input to the audio input interface is identical to the command voice stored in the command voice storage, and determines that the command voice does not instruct the photographing when the command voice input to the audio input interface is not identical to the command voice stored in the command voice storage. As a non-limiting example of the command voice storage, on information and belief each of the Accused Samsung '757 Products include an internal RAM storage device for storing a user's command voice given to Bixby for instructing photographing. For example, the Accused Samsung '757 Products include internal RAM storage or memory devices that stores a user's command voice instructed to Bixby for photographing: 

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	https://www.samsung.com/us/apps/bixby/  *Id.*

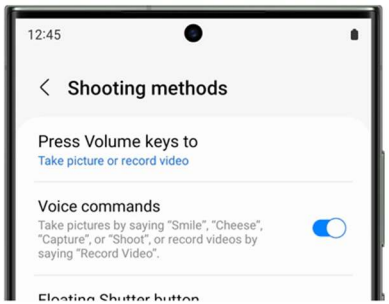
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

Adjust selfie camera settings

You can also adjust the different settings for your selfies, such as your preferred shooting method, selfie colors, and filters.

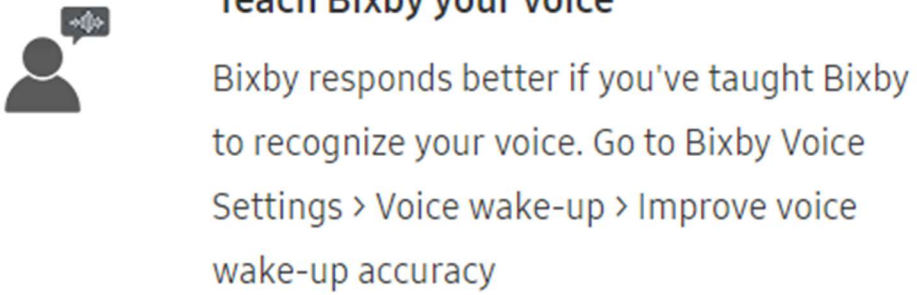
For example, you can set the color tone of your photos to bright or natural. Just navigate to the **Camera** app on your phone, tap **Settings**, and then swipe to and tap **Selfie color tone**. This way, you can select from **Natural** or **Bright** before you take a selfie, rather than after.

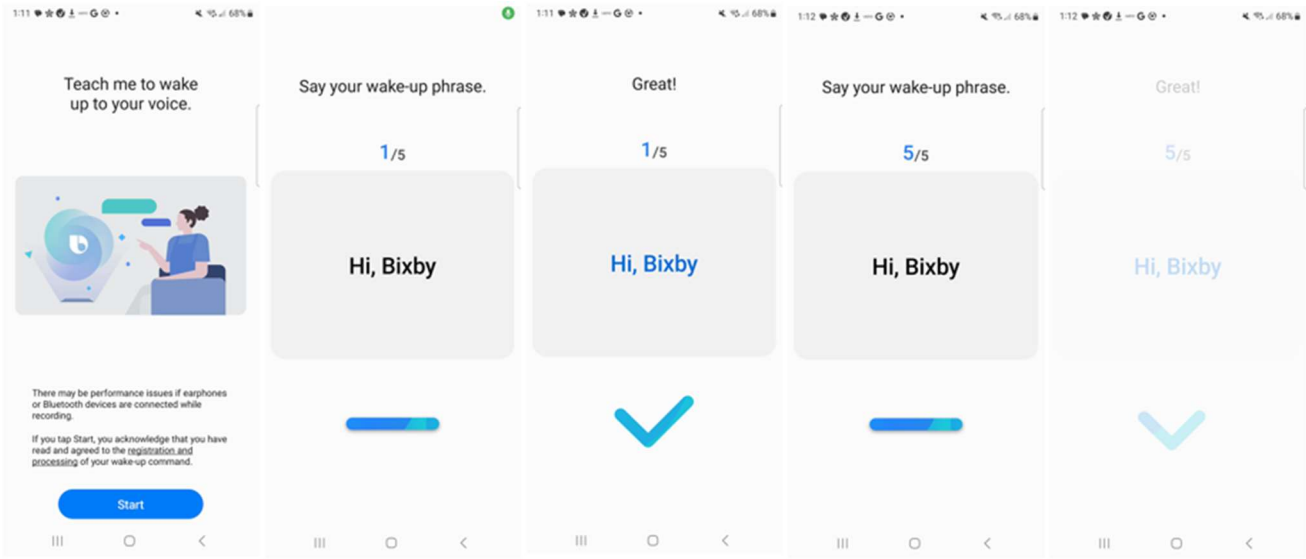
Snapping a photo of yourself can be easy, especially if you do not have to adjust the grip on your phone. Better shooting methods can be accessed from your Camera settings page. Swipe to and tap **Shooting methods**, and then tap **Press Volume keys to** or **Voice commands** to take a photo or video. Or, add a floating shutter button that can be moved around the screen. If you're taking a group selfie, it might be easier to simply show your palm to the screen to take the photo.



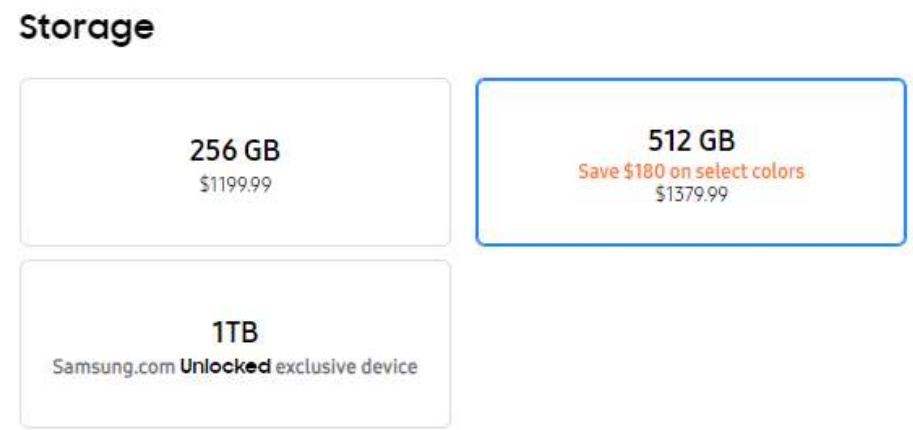
You can also set up automatic Camera modes that appear when launching the app. Tap **Settings to keep**, and then tap **Selfie angle** to use your previous angle again or tap **Filters** to reapply the same filters you have applied in the past. You can also select additional options such as Camera mode, Super steady, and Portrait zoom.

https://www.samsung.com/us/support/answer/ANS00062594/

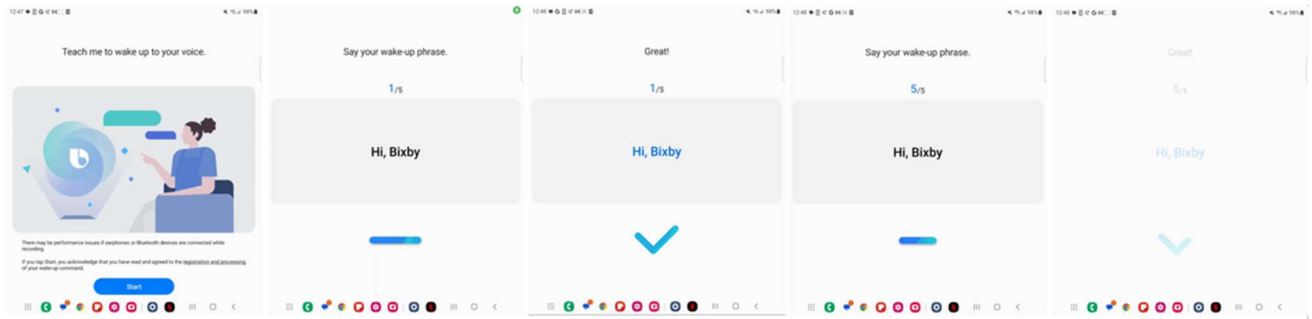


U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	https://www.samsung.com/us/apps/bixby/bixby-user-guide/  Galaxy S23 Ultra figures showing command voices received in Bixby being stored in the internal RAM storage or memory device including command voice for instructing photographing.

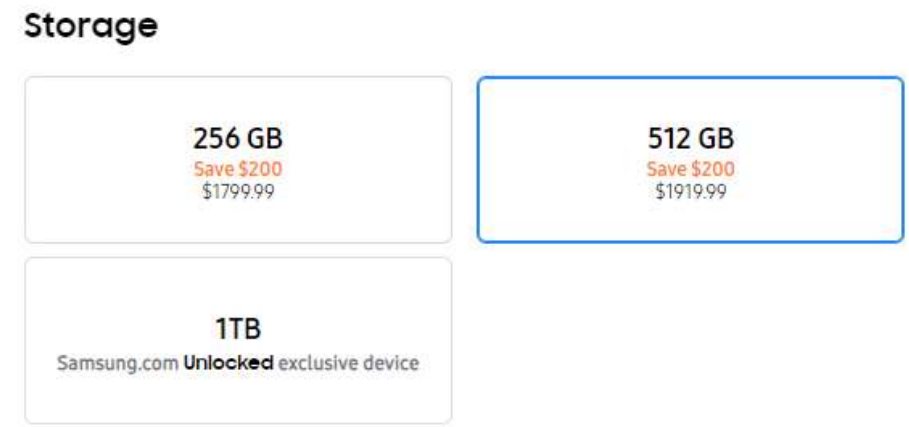
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement



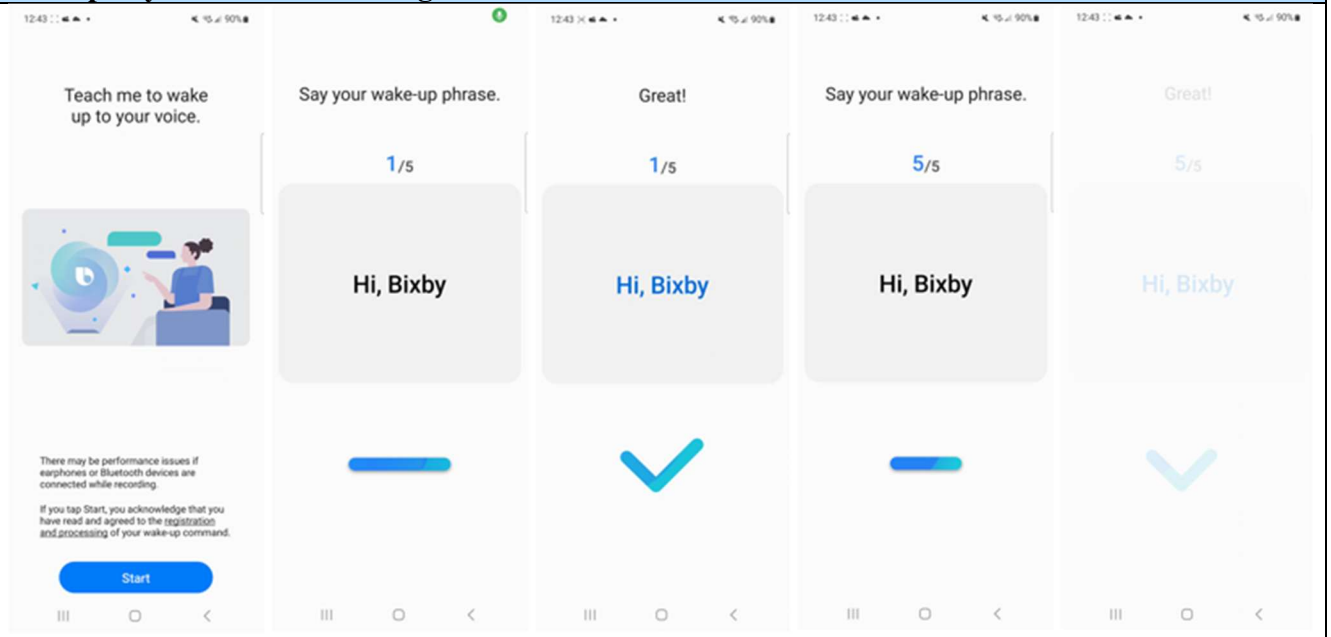
Galaxy S23 Ultra technical specifications; https://www.samsung.com/us/smartphones/galaxy-s23-ultra/buy/galaxy-s23-ultra-512gb-verizon-sm-s918uzgfvzw/?modelCode=SM-S918UZGFXAU; https://www.gsmarena.com/samsung_galaxy_s23_ultra-12024.php.



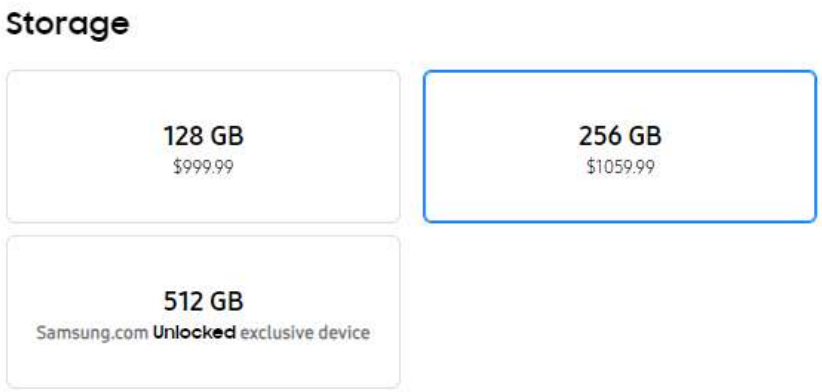
Galaxy Z Fold4 figures showing command voices received in Bixby being stored in the internal RAM storage or memory device including command voice for instructing photographing.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 MEMORY Card slot: No Internal: 256GB 12GB RAM, 512GB 12GB RAM, 1TB 12GB RAM UFS 3.1 Galaxy Z Fold4 technical specifications; https://www.samsung.com/us/smartphones/galaxy-z-fold4/buy/galaxy-z-fold4-512gb-att-sm-f936uzeeatt/; https://www.gsmarena.com/samsung_galaxy_z_fold4-11737.php.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement



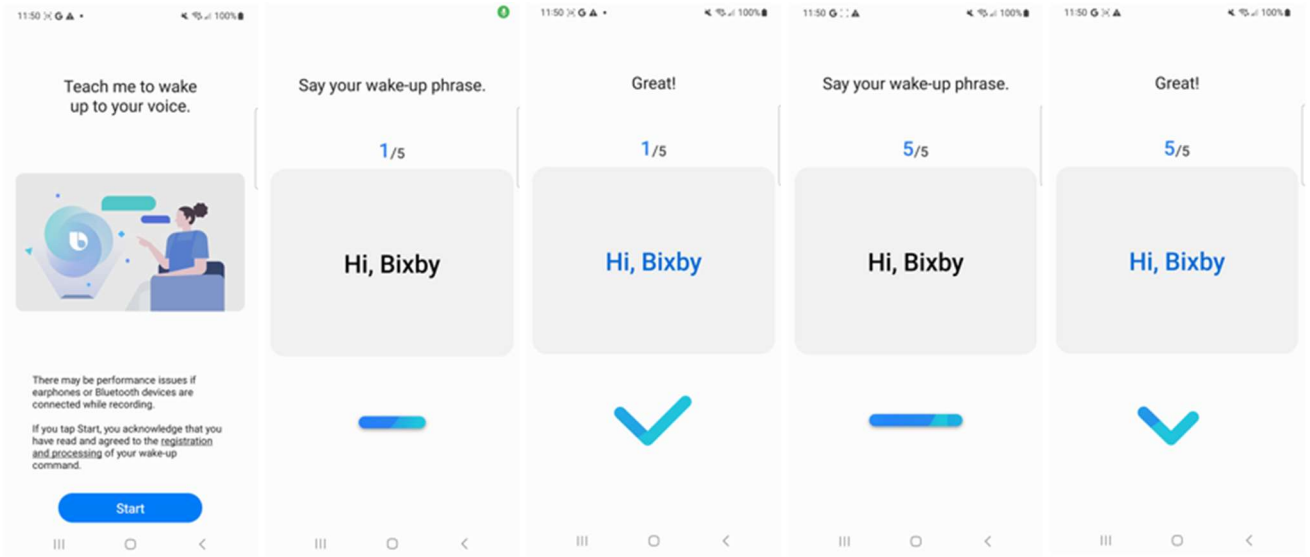
Galaxy Z Flip4 figures showing command voices received in Bixby being stored in the internal RAM storage or memory device including command voice for instructing photographing.



U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

MEMORY		
	Card slot	No
	Internal	128GB 8GB RAM, 256GB 8GB RAM, 512GB 8GB RAM
		UFS 3.1

Galaxy Z Flip4 technical specifications; https://www.samsung.com/us/smartphones/galaxy-z-flip4/buy/galaxy-z-flip4-256gb-t-mobile-sm-f721uzdexau/; https://www.gsmarena.com/samsung_galaxy_z_flip4-11538.php.



Galaxy A54 5G figures showing command voices received in Bixby being stored in the internal RAM storage or memory device including command voice for instructing photographing.

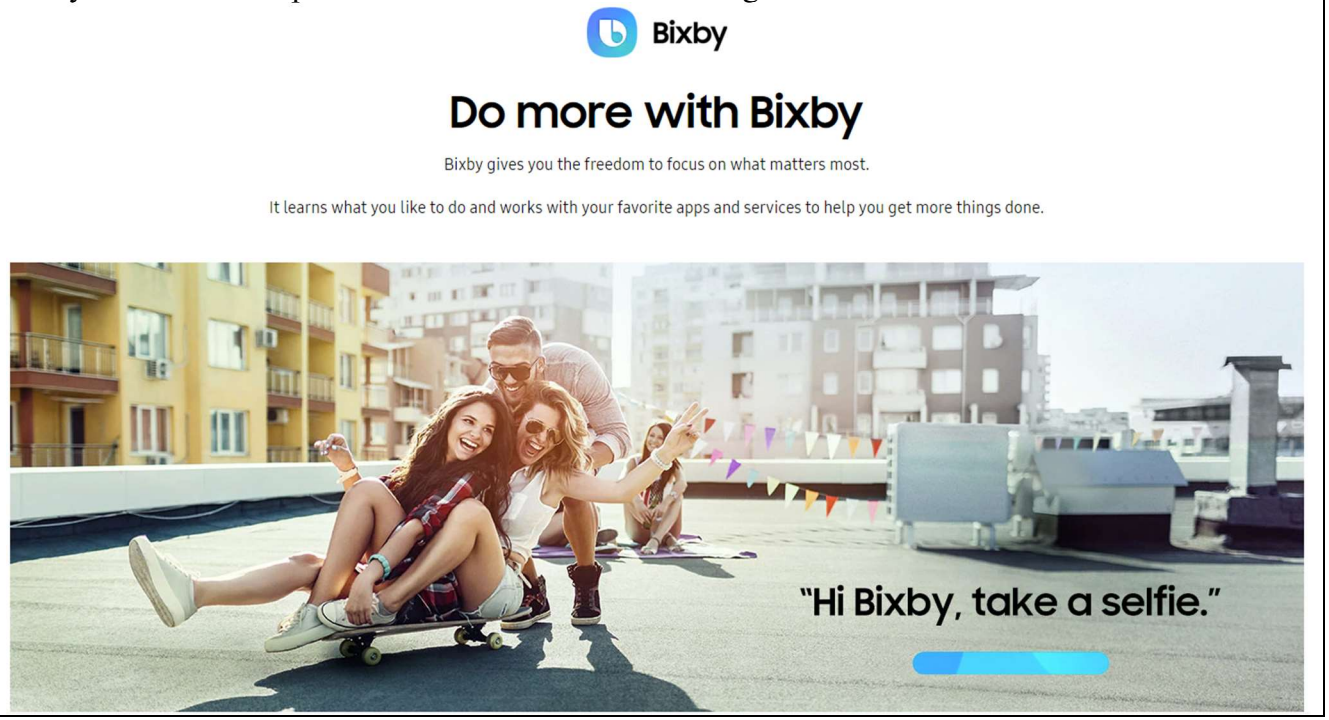


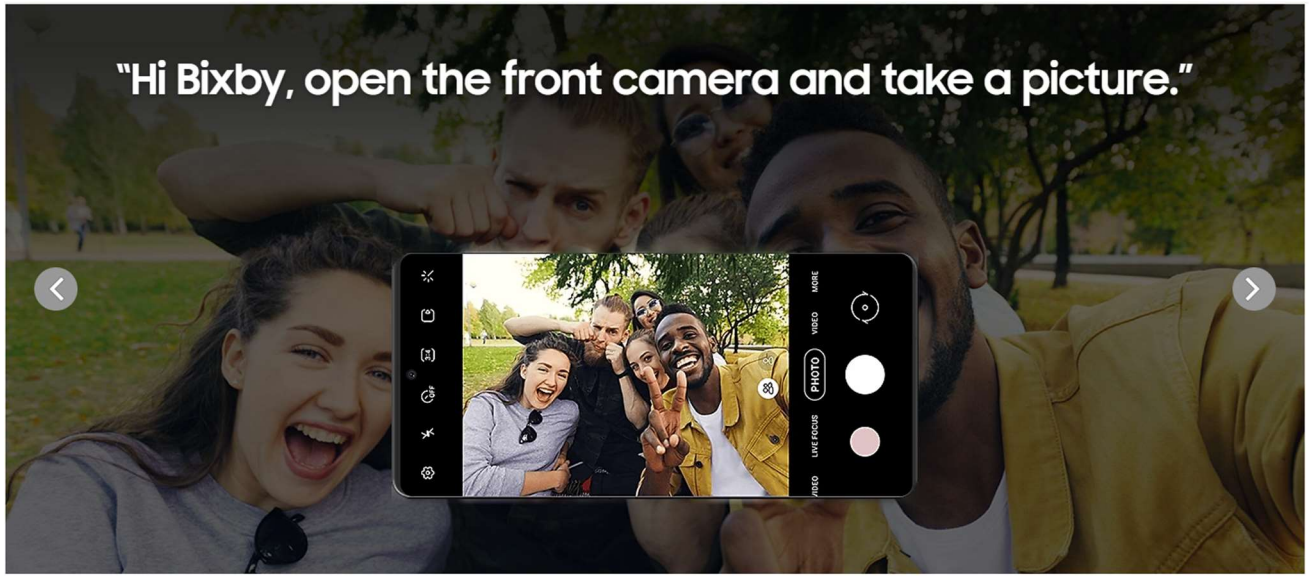
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

MEMORY	Card slot	microSDXC (uses shared SIM slot)
	Internal	128GB 6GB RAM, 128GB 8GB RAM, 256GB 6GB RAM, 256GB 8GB RAM

Galaxy A54 5G technical specifications; https://www.samsung.com/us/mobile/phones/galaxy-a/galaxy-a54-5g-128gb-verizon-sm-a546vzkbvzw/; https://www.gsmarena.com/samsung_galaxy_a54-12070.php.

Further, as a non-limiting example of the recorder, each of the Accused Samsung '757 Products is a smartphone and/or tablet having a recorder configured to perform control such that a command voice to be recorded in the command voice storage is received from the audio input interface and stored in the command voice storage as a command voice registration process. For example, the Accused Samsung '757 Products include a recorder having one or more processors (chipset) configured for recording and storing in the internal RAM storage or memory device command voices received in Bixby via the audio input interface for command voice registration:



U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	https://www.samsung.com/us/apps/bixby/  *Id.*

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

Adjust selfie camera settings

You can also adjust the different settings for your selfies, such as your preferred shooting method, selfie colors, and filters.

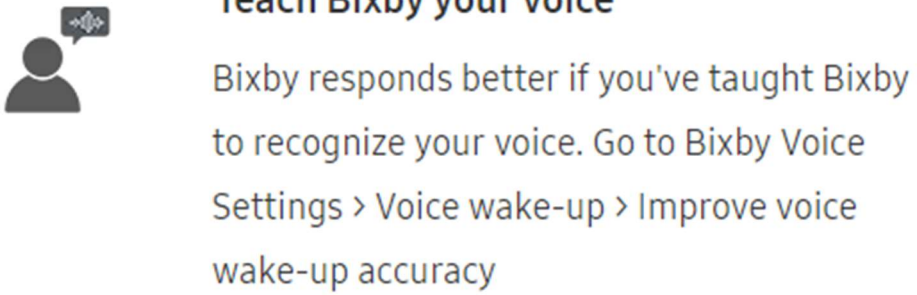
For example, you can set the color tone of your photos to bright or natural. Just navigate to the **Camera** app on your phone, tap **Settings**, and then swipe to and tap **Selfie color tone**. This way, you can select from **Natural** or **Bright** before you take a selfie, rather than after.

Snapping a photo of yourself can be easy, especially if you do not have to adjust the grip on your phone. Better shooting methods can be accessed from your Camera settings page. Swipe to and tap **Shooting methods**, and then tap **Press Volume keys to** or **Voice commands** to take a photo or video. Or, add a floating shutter button that can be moved around the screen. If you're taking a group selfie, it might be easier to simply show your palm to the screen to take the photo.



You can also set up automatic Camera modes that appear when launching the app. Tap **Settings to keep**, and then tap **Selfie angle** to use your previous angle again or tap **Filters** to reapply the same filters you have applied in the past. You can also select additional options such as Camera mode, Super steady, and Portrait zoom.

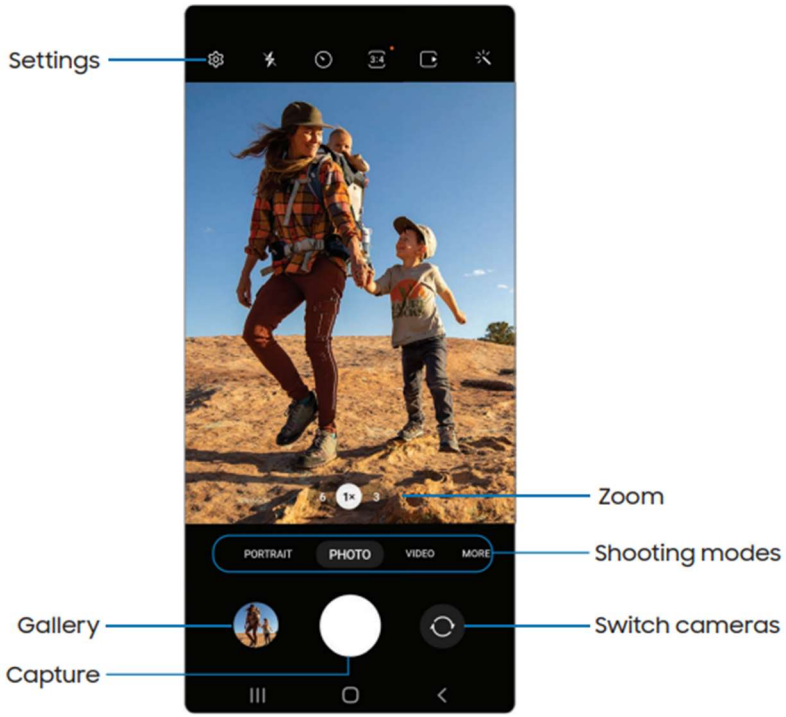
https://www.samsung.com/us/support/answer/ANS00062594/



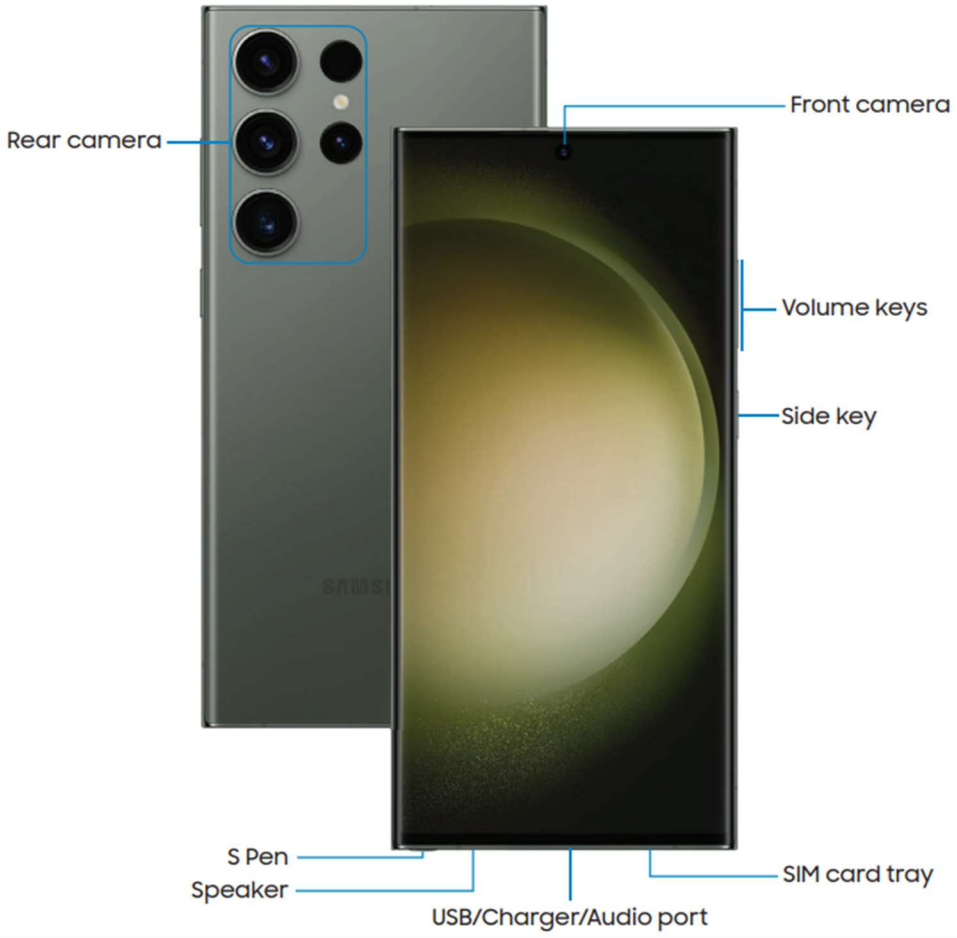
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	https://www.samsung.com/us/apps/bixby/bixby-user-guide/

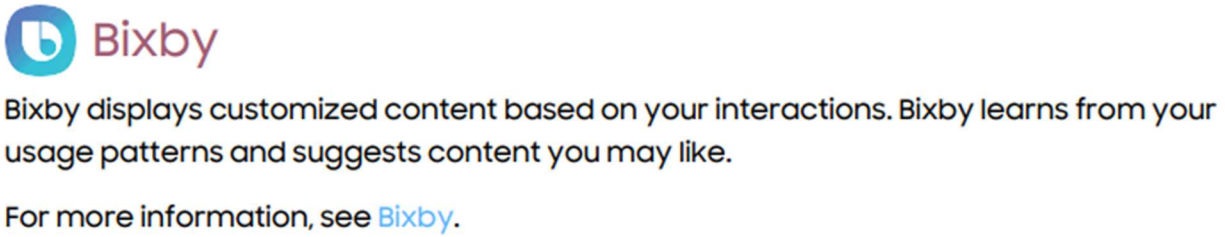


Galaxy S23 Ultra technical specifications; https://www.samsung.com/us/smartphones/galaxy-s23-ultra/buy/galaxy-s23-ultra-512gb-verizon-sm-s918uzgfvzw/?modelCode=SM-S918UZGFXAU; https://www.gsmarena.com/samsung_galaxy_s23_ultra-12024.php.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Camera Enjoy a full kit of pro lenses and pro-grade video modes and settings. ○ From Apps, tap Camera. TIP Quickly press the Side key twice to open the Camera app.  Galaxy S23 Ultra technical specification; https://downloadcenter.samsung.com/content/UM/202302/20230228053129621/SAM_S911_S916_S918_EN_UM_OS13_020223_FINAL_AC_022023.pdf at 58.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Configure shooting mode Allow the camera to determine the ideal mode for your pictures or choose from several shooting modes. ○ From Camera, swipe the screen right and left to change shooting modes. • **Portrait**: Adjust the background of your shots for portrait photos. • **Photo**: Allow the camera to determine the ideal settings for pictures. • **Video**: Allow the camera to determine the ideal settings for videos. • **More**: Choose other available shooting modes. Tap ⊕ **Add** to drag modes into or out of the shooting modes tray at the bottom of the Camera screen. - **Expert RAW**: Download the Expert RAW shooting mode. - **Pro**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while taking pictures. - **Pro video**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while recording videos. - **Single take**: Capture multiple pictures and video clips from different angles. - **Panorama**: Create a linear image by taking pictures in either a horizontal or vertical direction. - **Night**: Use this to take photos in low-light conditions, without using the flash. - **Food**: Take pictures that emphasize the vivid colors of food. - **Super slow-mo**: Record videos at an extremely high frame rate for viewing in high quality slow motion. You can play a specific section of each video in slow motion after recording it. - **Slow motion**: Record videos at a high frame rate for viewing in slow motion. - **Hyperlapse**: Create a time lapse video by recording at various frame rates. The frame rate is adjusted depending on the scene being recorded and the movement of the device. - **Portrait video**: Adjust the background of your shots for portrait videos. - **Director's view**: Access advanced features such as lock onto a subject in view, change between different rear camera lenses, and more. *Id.* at 59–60.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy S23 Ultra 

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy S23 Ultra technical specifications; https://downloadcenter.samsung.com/content/UM/202302/20230228053129621/SAM_S911_S916_S918_EN_UM_OS13_020223_FINAL_AC_022023.pdf at 5.  Galaxy S23 Ultra technical specification; https://downloadcenter.samsung.com/content/UM/202302/20230228053129621/SAM_S911_S916_S918_EN_UM_OS13_020223_FINAL_AC_022023.pdf at 74; https://www.samsung.com/us/apps/bixby/; https://www.samsung.com/us/apps/bixby/bixby-user-guide/.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Bixby Bixby is a virtual assistant that learns, evolves, and adapts to you. It learns your routines, helps you set up reminders based on time and location, and is built in to your favorite apps. Visit **samsung.com/us/support/owners/app/Bixby** for more information. ○ From a Home screen, press and hold the **Side** key. **TIP** You can also access Bixby from the Apps list. **Bixby Vision** Bixby is integrated with your Camera, Gallery, and Internet apps to give you a deeper understanding of what you see. It provides contextual icons for translation, QR code detection, landmark recognition, or shopping. **Camera** Bixby Vision is available on the Camera viewfinder to help understand what you see. ○ From **Camera**, tap **More** > **Bixby Vision** and follow the prompts. **Gallery** Bixby Vision can be used on pictures and images saved in the Gallery app. 1. From **Gallery**, tap a picture to view it. 2. Tap **Bixby Vision** and follow the prompts. **Internet** Bixby Vision can help you find out more about an image you find in the Internet app. 1. From **Internet**, touch and hold an image until a pop-up menu is displayed. 2. Tap **Search with Bixby Vision** and follow the prompts.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy S23 Ultra technical specification; https://downloadcenter.samsung.com/content/UM/202302/20230228053129621/SAM_S911_S916_S918_EN_UM_OS13_020223_FINAL_AC_022023.pdf at 41.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

Bixby

Introduction

Bixby is a user interface that helps you use your device more conveniently.

You can talk to Bixby or type text. Bixby will launch a feature you request or show the information you want. Visit www.samsung.com/bixby for more information.

Bixby is only available in some languages, and it may not be available depending on the region.

Starting Bixby

Press and hold the Side key to launch Bixby. The Bixby intro page will appear. After you select the language to use with Bixby, sign in to your Samsung account, and complete the setup by following the on-screen instructions, the Bixby screen will appear.

Using Bixby

While pressing and holding the Side key, say what you want to Bixby. Alternatively, say the wake-up phrase and say what you want.

For example, while pressing and holding the Side key, say "How's the weather today?" The weather information will appear on the screen.

If Bixby asks you a question during a conversation, you can continue to talk to Bixby without pressing the Side key or tapping .

Waking up Bixby using your voice

You can start a conversation with Bixby by saying "Hi, Bixby" or "Bixby". Register your voice so that Bixby will respond to your voice.

1 Open the **Bixby** app and tap → **Voice wake-up**.

2 Tap the switch to turn it on.

3 Select a wake-up phrase you want under **Wake-up phrase**.

4 Tap the **Respond to my voice** switch to turn it on.

5 Follow the on-screen instructions to complete the setup.
Now you can say the wake-up phrase and start a conversation.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

Communicating by typing text

If your voice is not recognized because of noisy environments or if you are in a situation where speaking is difficult, you can communicate with Bixby through text.

Open the **Bixby** app, tap , and then type what you want.

During the communication, Bixby also will answer you through text instead of voice feedback.

Bixby Vision

Introduction

Bixby Vision is a service that provides various features based on image recognition. You can use Bixby Vision to search for information by recognizing objects.

- This feature may not be available or you might not get correct search results depending on the image size, format, or resolution.
- Samsung is not responsible for the product information provided by Bixby Vision.

Launching Bixby Vision

Launch Bixby Vision using one of these methods.

- In the **Camera** app, tap **MORE** on the shooting modes list and tap **BIXBY VISION**.
- In the **Gallery** app, select an image and tap .
- In the **Samsung Internet** app, touch and hold an image and tap **Search with Bixby Vision**.
- If you added the Bixby Vision app icon to the Apps screen, open the **Bixby Vision** app.

Using Bixby Vision

1 Launch Bixby Vision.

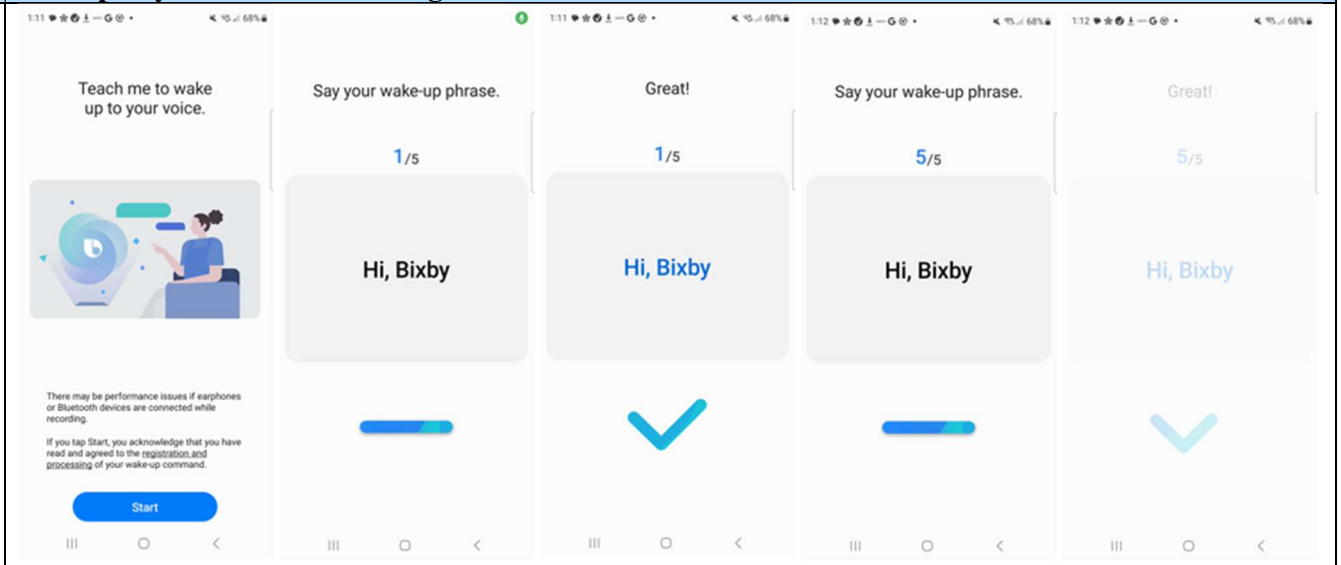
2 Select a feature you want to use.

- **TRANSLATE**: Recognize text from documents or images and translate it.
- **TEXT**: Recognize text from documents or images and extract it.
- **DISCOVER**: Search for images similar to the recognized object online and related information.

The available features and search results may vary depending on the region or carrier.

Galaxy S23 Series User Guide at pg. 88-90.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement



Galaxy S23 Ultra figures showing the command voice registration process being Bixby receiving command voices to teach Bixby a user's voice.



Galaxy Z Fold4 technical specifications; https://www.samsung.com/us/smartphones/galaxy-z-fold4/buy/galaxy-z-fold4-512gb-att-sm-f936uzeeatt/; https://www.gsmarena.com/samsung_galaxy_z_fold4-11737.php.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy Z Fold4 Camera features  **Capture and view** View the pictures and videos you capture while still using your camera. Images will be shown on the side panel until the Camera app is closed. This feature is only available when the device is open. ○ From **Camera**, tap **Capture View**. Galaxy Z Fold4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/galaxy_z_fold4_camera_features_d1e3185.

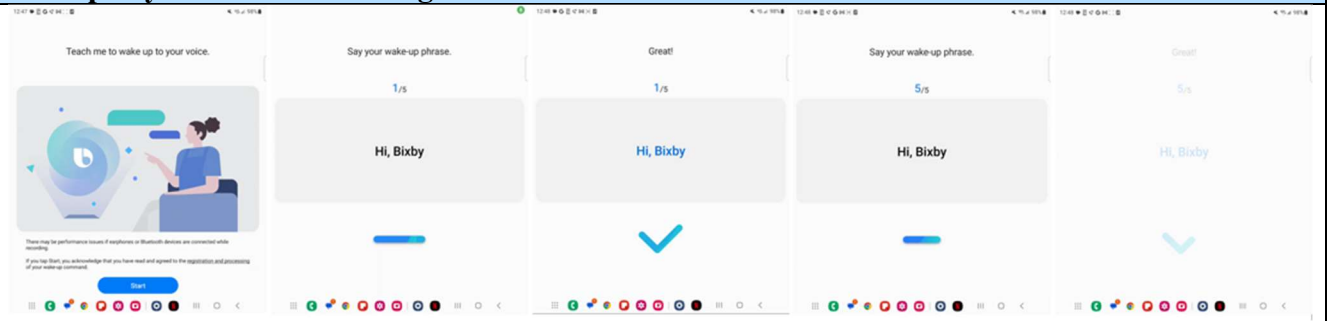
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Configure shooting mode Allow the camera to determine the ideal mode for your pictures or choose from several shooting modes. ◦ From **Camera**, swipe the screen right and left to change shooting modes. • **Portrait**: Adjust the background of your shots for portrait photos. • **Photo**: Allow the camera to determine the ideal settings for pictures. • **Video**: Allow the camera to determine the ideal settings for videos. • **More**: Choose other available shooting modes. Tap **Add** to drag modes into or out of the shooting modes tray at the bottom of the Camera screen. - **Pro**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while taking pictures. - **Pro video**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while recording videos. - **Single take**: Capture multiple pictures and video clips from different angles. - **Panorama**: Create a linear image by taking pictures in either a horizontal or vertical direction. - **Night**: Use this to take photos in low-light conditions, without using the flash. - **Food**: Take pictures that emphasize the vivid colors of food. - **Super slow-mo**: Record videos at an extremely high frame rate for viewing in high quality slow motion. You can play a specific section of each video in slow motion after recording it. - **Slow motion**: Record videos at a high frame rate for viewing in slow motion. - **Hyperlapse**: Create a time lapse video by recording at various frame rates. The frame rate is adjusted depending on the scene being recorded and the movement of the device. - **Portrait video**: Adjust the background of your shots for portrait videos. - **Director's view**: Access advanced features such as lock onto a subject in view, change between different rear camera lenses, and more. Galaxy Z Fold4 technical specification; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/configure_shooting_mode_d1e3233.html.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy Z Fold4 technical specification; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/galaxy_z_fold4_d1e605.html.

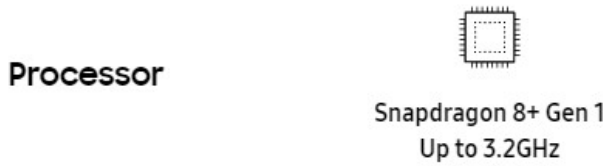
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Bixby displays customized content based on your interactions. Bixby learns from your usage patterns and suggests content you may like. For more information, see Bixby. Galaxy Z Fold4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/samsung_apps_d1e4429.html#d1e4524; https://www.samsung.com/us/apps/bixby/; https://www.samsung.com/us/apps/bixby/bixby-user-guide/.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Bixby Bixby is a virtual assistant that learns, evolves, and adapts to you. It learns your routines, helps you set up reminders based on time and location, and is built in to your favorite apps. Visit **samsung.com/us/support/owners/app/Bixby** for more information. • From a Home screen, press and hold the **Side** key. **TIP** You can also access Bixby from the Apps list. **Bixby Vision** Bixby is integrated with your Camera, Gallery, and Internet apps to give you a deeper understanding of what you see. It provides contextual icons for translation, QR code detection, landmark recognition, or shopping. **Camera** Bixby Vision is available on the Camera viewfinder to help understand what you see. • From **Camera**, tap **More** > **Bixby Vision** and follow the prompts. **Gallery** Bixby Vision can be used on pictures and images saved in the Gallery app. 1. From **Gallery**, tap a picture to view it. 2. Tap **Bixby Vision** and follow the prompts. **Internet** Bixby Vision can help you find out more about an image you find in the Internet app. 1. From **Internet**, touch and hold an image until a pop-up menu is displayed. 2. Tap **Search with Bixby Vision** and follow the prompts. Galaxy Z Fold4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/bixby_d1e1993.html#d1e2011.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

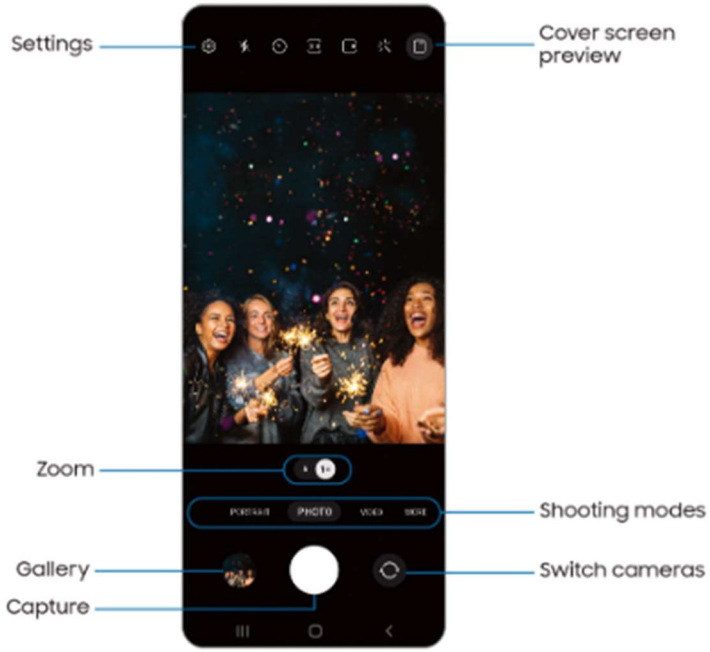


Galaxy Z Fold4 figures showing the command voice registration process being Bixby receiving command voices to teach Bixby a user's voice.

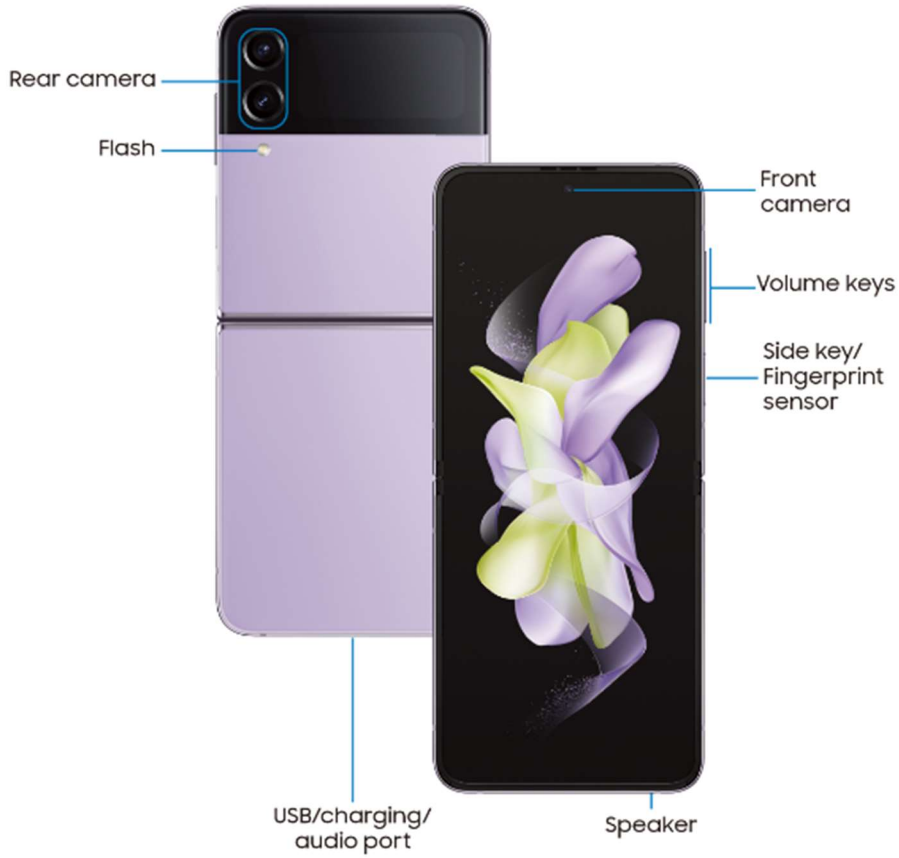


PLATFORM	OS	Android 12, upgradable to Android 13, One UI 5.1
	Chipset	Qualcomm SM8475 Snapdragon 8+ Gen 1 (4 nm)
	CPU	Octa-core (1x3.19 GHz Cortex-X2 & 3x2.75 GHz Cortex-A710 & 4x1.80 GHz Cortex-A510)
	GPU	Adreno 730

Galaxy Z Flip4 technical specifications; https://www.samsung.com/us/smartphones/galaxy-z-flip4/buy/galaxy-z-flip4-256gb-t-mobile-sm-f721uzdexau/; https://www.gsmarena.com/samsung_galaxy_z_flip4-11538.php.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy Z Flip4 Camera features  **Selfies in Flex mode** Use your camera in Flex mode for hands-free selfies. 1. Place your phone on a flat surface in table top view. 2. From **Camera**, tap **Portrait**. 3. Tap or to move the camera preview to the top or bottom half of the screen. Galaxy Z Flip4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/galaxy_z_flip4_camera_features_d1e3206.html.

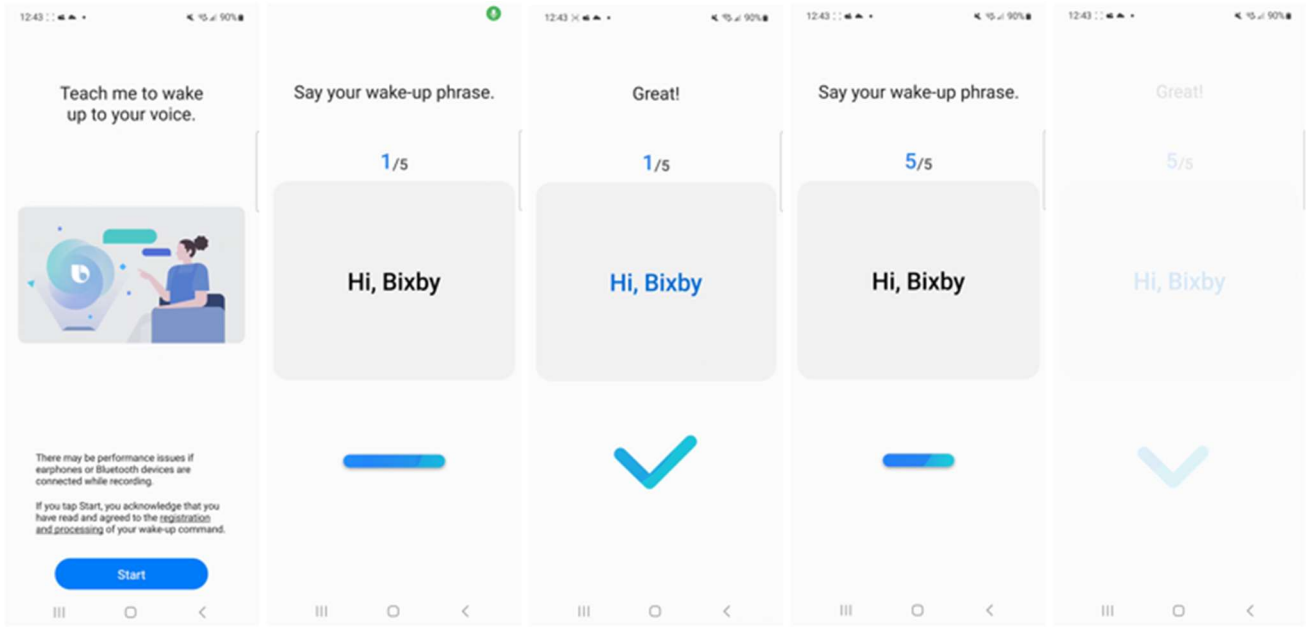
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Configure shooting mode Allow the camera to determine the ideal mode for your pictures or choose from several shooting modes. ○ From **Camera**, swipe the screen right and left to change shooting modes. • **Portrait**: Adjust the background of your shots for portrait photos. • **Photo**: Allow the camera to determine the ideal settings for pictures. • **Video**: Allow the camera to determine the ideal settings for videos. • **More**: Choose other available shooting modes. Tap **Add** to drag modes into or out of the shooting modes tray at the bottom of the Camera screen. - **Pro**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while taking pictures. - **Pro video**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while recording videos. - **Single take**: Capture multiple pictures and video clips from different angles. - **Panorama**: Create a linear image by taking pictures in either a horizontal or vertical direction. - **Night**: Use this to take photos in low-light conditions, without using the flash. - **Food**: Take pictures that emphasize the vivid colors of food. - **Super slow-mo**: Record videos at an extremely high frame rate for viewing in high quality slow motion. You can play a specific section of each video in slow motion after recording it. - **Slow motion**: Record videos at a high frame rate for viewing in slow motion. - **Hyperlapse**: Create a time lapse video by recording at various frame rates. The frame rate is adjusted depending on the scene being recorded and the movement of the device. - **Portrait video**: Adjust the background of your shots for portrait videos. - **Director's view**: Access advanced features such as lock onto a subject in view, change between different rear camera lenses, and more. Galaxy Z Flip4 technical specification; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/configure_shooting_mode_d1e3233.html.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy Z Flip4  Galaxy Z Flip4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/galaxy_z_flip4_d1e661.html.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Bixby Bixby displays customized content based on your interactions. Bixby learns from your usage patterns and suggests content you may like. For more information, see Bixby. Galaxy Z Flip4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/samsung_apps_d1e4429.html#d1e4524; https://www.samsung.com/us/apps/bixby/; https://www.samsung.com/us/apps/bixby/bixby-user-guide/.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Bixby Bixby is a virtual assistant that learns, evolves, and adapts to you. It learns your routines, helps you set up reminders based on time and location, and is built in to your favorite apps. Visit **samsung.com/us/support/owners/app/Bixby** for more information. • From a Home screen, press and hold the **Side** key. **TIP** You can also access Bixby from the Apps list. **Bixby Vision** Bixby is integrated with your Camera, Gallery, and Internet apps to give you a deeper understanding of what you see. It provides contextual icons for translation, QR code detection, landmark recognition, or shopping. **Camera** Bixby Vision is available on the Camera viewfinder to help understand what you see. • From **Camera**, tap **More** > **Bixby Vision** and follow the prompts. **Gallery** Bixby Vision can be used on pictures and images saved in the Gallery app. 1. From **Gallery**, tap a picture to view it. 2. Tap **Bixby Vision** and follow the prompts. **Internet** Bixby Vision can help you find out more about an image you find in the Internet app. 1. From **Internet**, touch and hold an image until a pop-up menu is displayed. 2. Tap **Search with Bixby Vision** and follow the prompts. Galaxy Z Flip4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/bixby_d1e1993.html#d1e2011.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

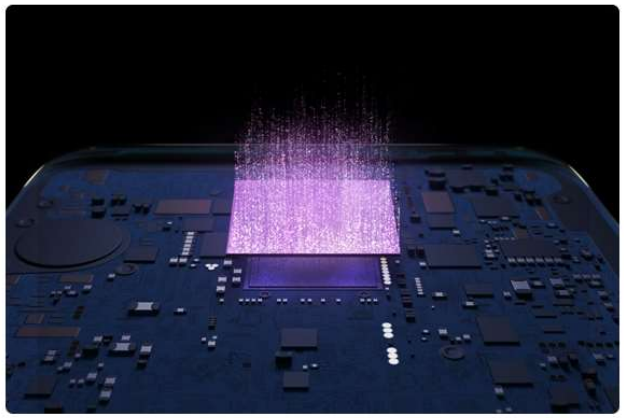


Galaxy Z Flip4 figures showing the command voice registration process being Bixby receiving command voices to teach Bixby a user's voice.

Processor	
CPU Type	**CPU Speed**
Octa-Core	2.4GHz,2GHz

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

Performance

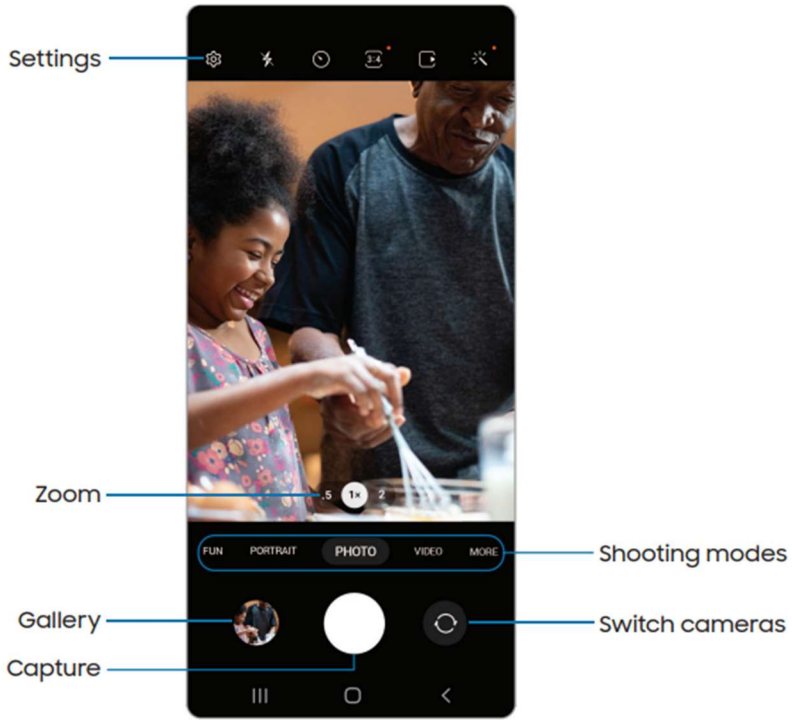


Impressive speed. Powerful processor

The powerful Octa-core processor opens up a new range of possibilities with heightened performance and capacity.

PLATFORM	OS	Android 13, One UI 5.1
	Chipset	Exynos 1380 (5 nm)
	CPU	Octa-core (4x2.4 GHz Cortex-A78 & 4x2.0 GHz Cortex-A55)
	GPU	Mali-G68 MP5

Galaxy A54 5G technical specifications; https://www.samsung.com/us/mobile/phones/galaxy-a/galaxy-a54-5g-128gb-verizon-sm-a546vzkbvzw/; https://www.gsmarena.com/samsung_galaxy_a54-12070.php.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Camera Enjoy a full kit of pro lenses and pro-grade video modes and settings. ○ From Apps, tap Camera. TIP Quickly press the Side key twice to open the Camera app.  Galaxy A54 5G technical specifications; https://downloadcenter.samsung.com/content/UM/202304/20230407022332214/SAM_A546_EN_UM_OS13_040523_FINAL.pdf at 40.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

Configure shooting mode

Allow the camera to determine the ideal mode for your pictures or choose from several shooting modes.

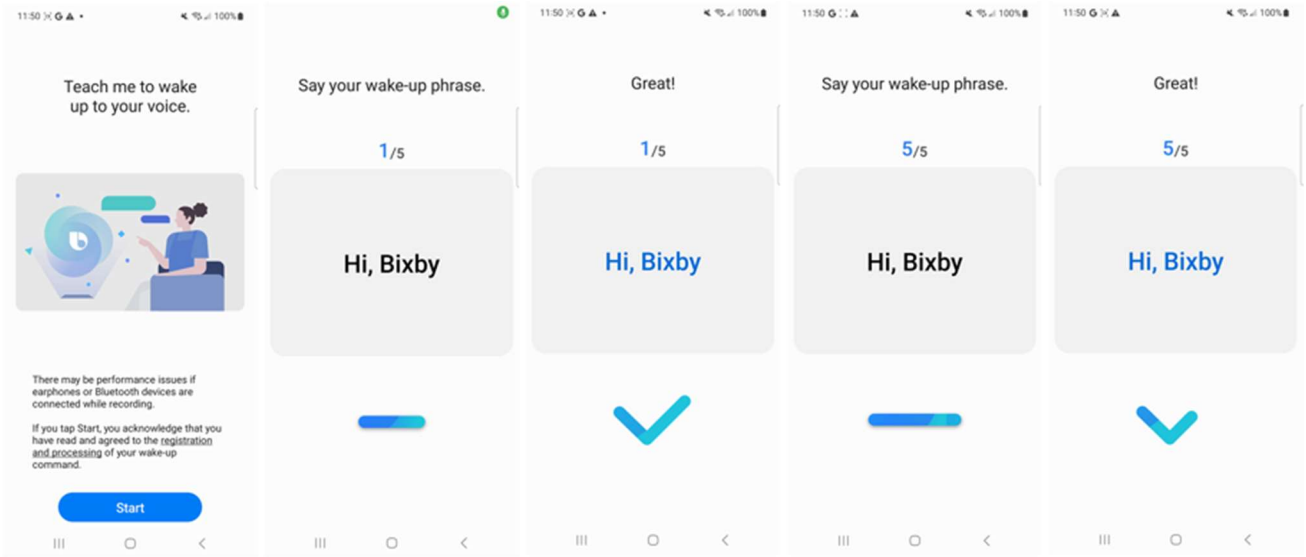
- From **Camera**, swipe the screen right and left to change shooting modes.
  - **Fun**: Change your look and reimagine your world with unique Snapchat Lenses.
  - **Portrait**: Adjust the background of your shots for portrait photos.
  - **Photo**: Allow the camera to determine the ideal settings for pictures.
  - **Video**: Allow the camera to determine the ideal settings for videos.
  - **More**: Choose other available shooting modes. Tap **Add** to drag modes into or out of the shooting modes tray at the bottom of the Camera screen.
    - **Pro**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while taking pictures.
    - **Macro**: Capture close-up images of objects from 3-5 cm away.
    - **Pro video**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while recording videos.
    - **Single take**: Capture multiple pictures and video clips from different angles.
    - **Panorama**: Create a linear image by taking pictures in either a horizontal or vertical direction.
    - **Night**: Use this to take photos in low-light conditions, without using the flash.
    - **Food**: Take pictures that emphasize the vivid colors of food.
    - **Super slow-mo**: Record videos at an extremely high frame rate for viewing in high quality slow motion. You can play a specific section of each video in slow motion after recording it.
    - **Slow motion**: Record videos at a high frame rate for viewing in slow motion.
    - **Hyperlapse**: Create a time lapse video by recording at various frame rates. The frame rate is adjusted depending on the scene being recorded and the movement of the device.

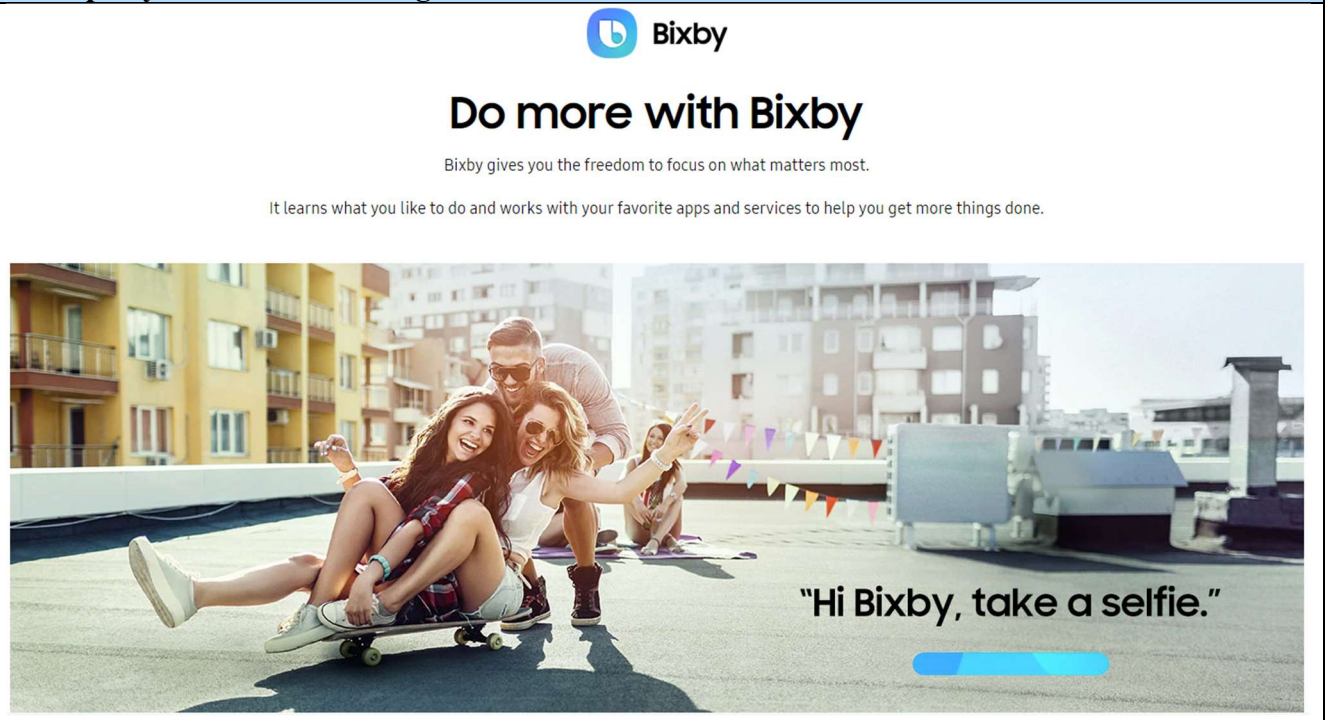
Id. at 40–41.

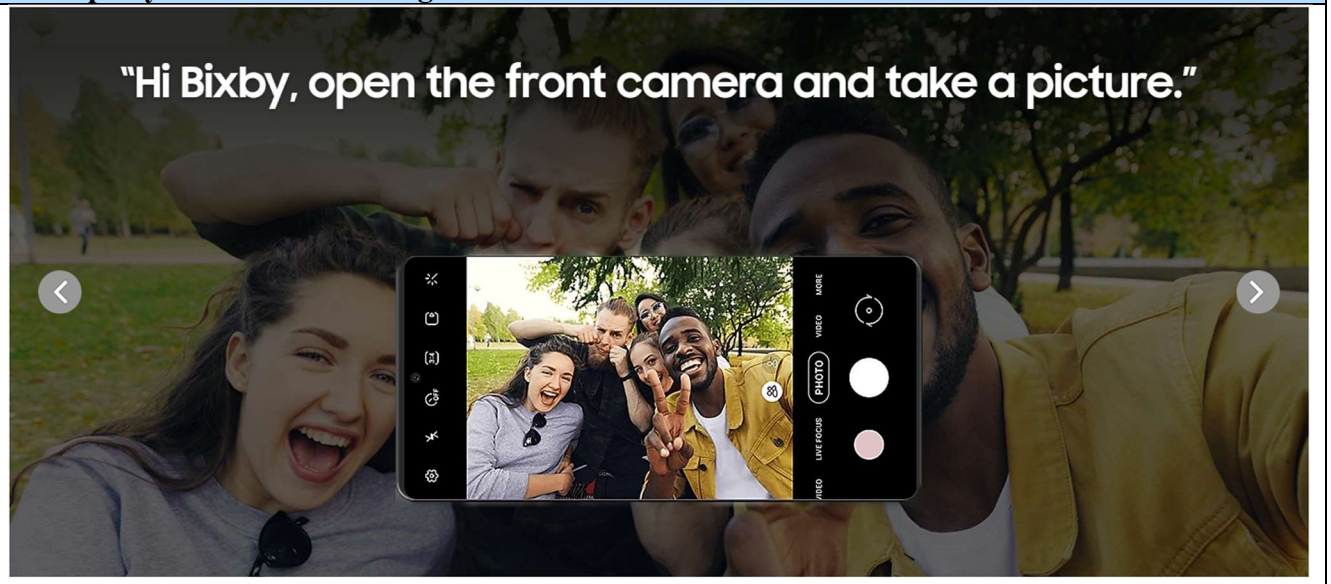
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy A54 5G technical specifications; https://downloadcenter.samsung.com/content/UM/202304/20230407022332214/SAM_A546_EN_UM_OS13_040523_FINAL.pdf at 5.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Bixby displays customized content based on your interactions. Bixby learns from your usage patterns and suggests content you may like. For more information, see Bixby. Galaxy A54 5G technical specifications; https://downloadcenter.samsung.com/content/UM/202304/20230407022332214/SAM_A546_EN_UM_OS13_040523_FINAL.pdf at 55; https://www.samsung.com/us/apps/bixby/; https://www.samsung.com/us/apps/bixby/bixby-user-guide/.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Bixby Bixby is a virtual assistant that learns, evolves, and adapts to you. It learns your routines, helps you set up reminders based on time and location, and is built in to your favorite apps. Visit **samsung.com/us/support/owners/app/Bixby** for more information. ○ From a Home screen, press and hold the **Side** key. Bixby Vision Bixby is integrated with your Camera, Gallery, and Internet apps to give you a deeper understanding of what you see. It provides contextual icons for translation, QR code detection, landmark recognition, or shopping. Camera Bixby Vision is available on the Camera viewfinder to help understand what you see. ○ From **Camera**, tap **More** > **Bixby Vision** and follow the prompts. Gallery Bixby Vision can be used on pictures and images saved in the Gallery app. 1. From **Gallery**, tap a picture to view it. 2. Tap **Bixby Vision** and follow the prompts. Internet Bixby Vision can help you find out more about an image you find in the Internet app. 1. From **Internet**, touch and hold an image until a pop-up menu is displayed. 2. Tap **Search with Bixby Vision** and follow the prompts. Galaxy A54 5G technical specifications; https://downloadcenter.samsung.com/content/UM/202304/20230407022332214/SAM_A546_EN_UM_OS13_040523_FINAL.pdf at 24.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy A54 5G figures showing the command voice registration process being Bixby receiving command voices to teach Bixby a user's voice. Moreover, as a non-limiting example of the first photographing process and the recorder, on information and belief each of the Accused Samsung '757 Products is a smartphone and/or tablet having a photographing process where one or more processors (chipset), as the recorder, determines that the command voice of a user given to Bixby is identical to the command voice stored in the internal RAM or memory device in order for the one or more processors (chipset) to allow Bixby to take a photograph:

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 https://www.samsung.com/us/apps/bixby/

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 *Id.*

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

Adjust selfie camera settings

You can also adjust the different settings for your selfies, such as your preferred shooting method, selfie colors, and filters.

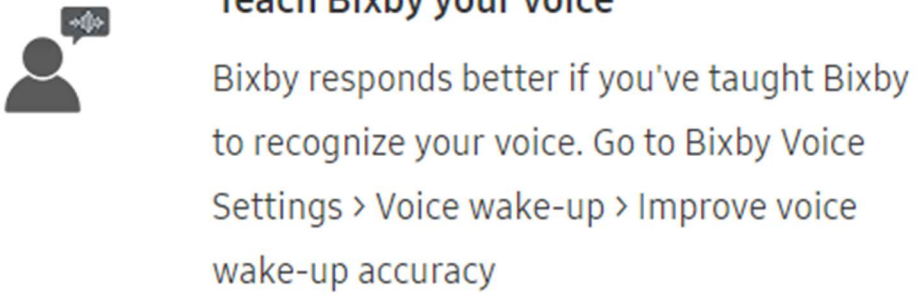
For example, you can set the color tone of your photos to bright or natural. Just navigate to the **Camera** app on your phone, tap **Settings**, and then swipe to and tap **Selfie color tone**. This way, you can select from **Natural** or **Bright** before you take a selfie, rather than after.

Snapping a photo of yourself can be easy, especially if you do not have to adjust the grip on your phone. Better shooting methods can be accessed from your Camera settings page. Swipe to and tap **Shooting methods**, and then tap **Press Volume keys to** or **Voice commands** to take a photo or video. Or, add a floating shutter button that can be moved around the screen. If you're taking a group selfie, it might be easier to simply show your palm to the screen to take the photo.

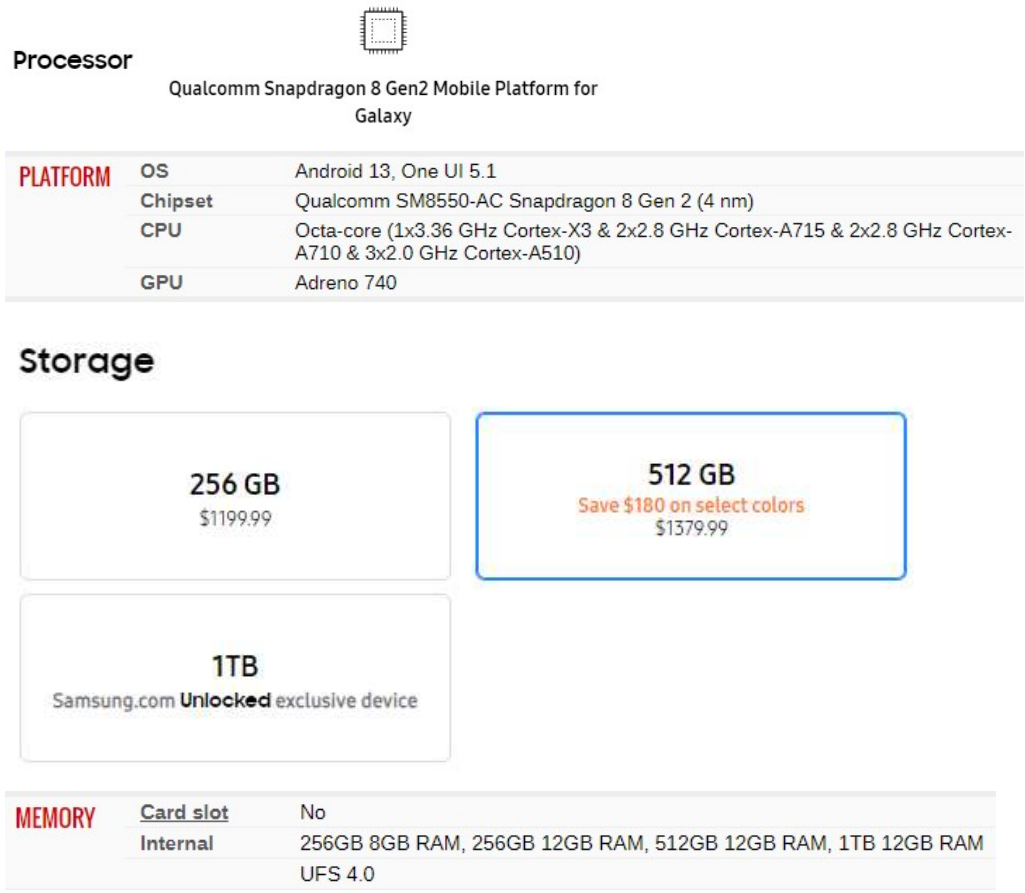


You can also set up automatic Camera modes that appear when launching the app. Tap **Settings to keep**, and then tap **Selfie angle** to use your previous angle again or tap **Filters** to reapply the same filters you have applied in the past. You can also select additional options such as Camera mode, Super steady, and Portrait zoom.

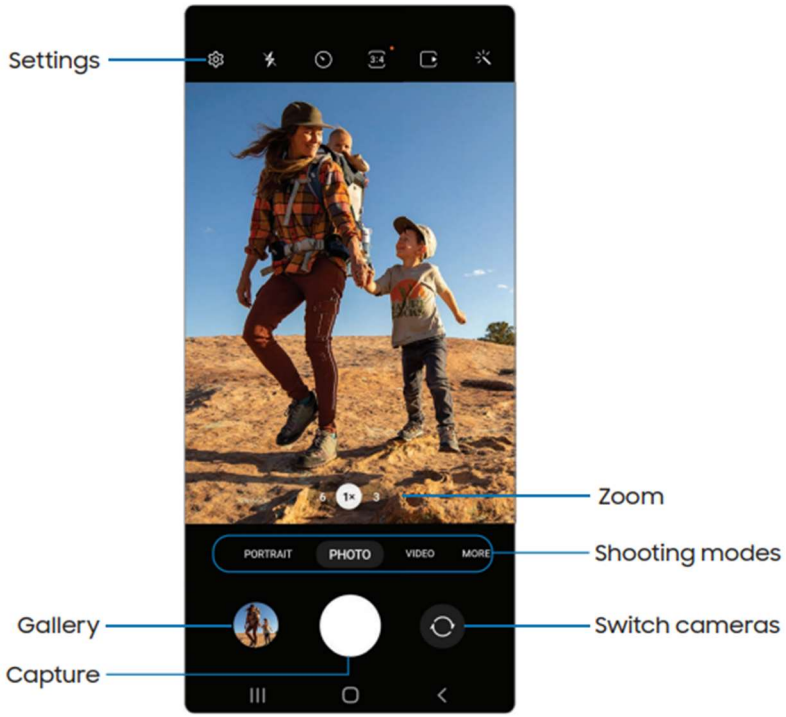
https://www.samsung.com/us/support/answer/ANS00062594/



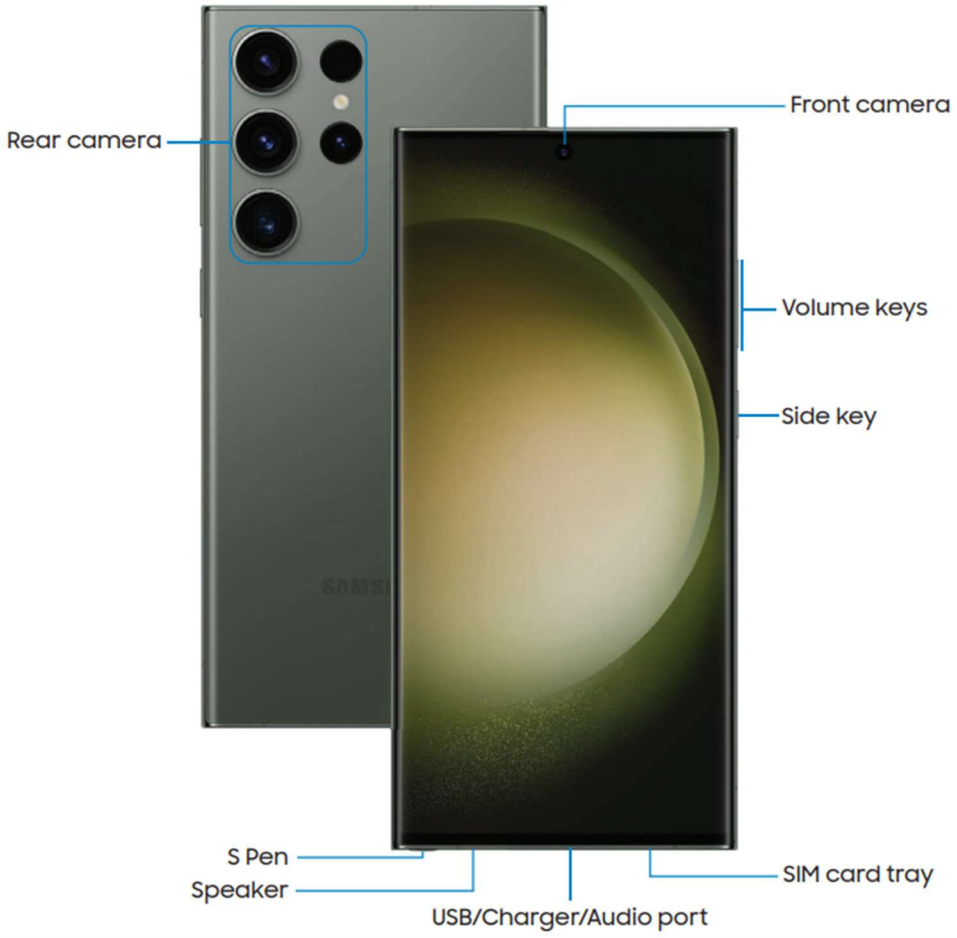
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	https://www.samsung.com/us/apps/bixby/bixby-user-guide/

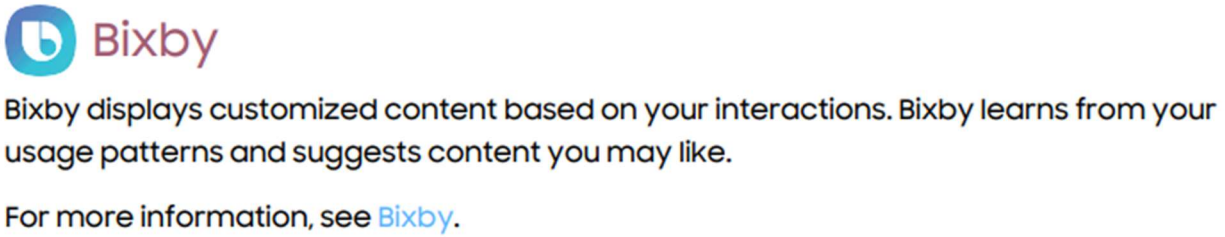


Galaxy S23 Ultra technical specifications; https://www.samsung.com/us/smartphones/galaxy-s23-ultra/buy/galaxy-s23-ultra-512gb-verizon-sm-s918uzgfvzw/?modelCode=SM-S918UZGFXAU; https://www.gsmarena.com/samsung_galaxy_s23_ultra-12024.php.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Camera Enjoy a full kit of pro lenses and pro-grade video modes and settings. ○ From Apps, tap Camera. TIP Quickly press the Side key twice to open the Camera app.  Galaxy S23 Ultra technical specification; https://downloadcenter.samsung.com/content/UM/202302/20230228053129621/SAM_S911_S916_S918_EN_UM_OS13_020223_FINAL_AC_022023.pdf at 58.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Configure shooting mode Allow the camera to determine the ideal mode for your pictures or choose from several shooting modes. ○ From Camera, swipe the screen right and left to change shooting modes. • **Portrait**: Adjust the background of your shots for portrait photos. • **Photo**: Allow the camera to determine the ideal settings for pictures. • **Video**: Allow the camera to determine the ideal settings for videos. • **More**: Choose other available shooting modes. Tap ⊕ **Add** to drag modes into or out of the shooting modes tray at the bottom of the Camera screen. - **Expert RAW**: Download the Expert RAW shooting mode. - **Pro**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while taking pictures. - **Pro video**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while recording videos. - **Single take**: Capture multiple pictures and video clips from different angles. - **Panorama**: Create a linear image by taking pictures in either a horizontal or vertical direction. - **Night**: Use this to take photos in low-light conditions, without using the flash. - **Food**: Take pictures that emphasize the vivid colors of food. - **Super slow-mo**: Record videos at an extremely high frame rate for viewing in high quality slow motion. You can play a specific section of each video in slow motion after recording it. - **Slow motion**: Record videos at a high frame rate for viewing in slow motion. - **Hyperlapse**: Create a time lapse video by recording at various frame rates. The frame rate is adjusted depending on the scene being recorded and the movement of the device. - **Portrait video**: Adjust the background of your shots for portrait videos. - **Director's view**: Access advanced features such as lock onto a subject in view, change between different rear camera lenses, and more. *Id.* at 59–60.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy S23 Ultra 

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy S23 Ultra technical specifications; https://downloadcenter.samsung.com/content/UM/202302/20230228053129621/SAM_S911_S916_S918_EN_UM_OS13_020223_FINAL_AC_022023.pdf at 5.  Galaxy S23 Ultra technical specification; https://downloadcenter.samsung.com/content/UM/202302/20230228053129621/SAM_S911_S916_S918_EN_UM_OS13_020223_FINAL_AC_022023.pdf at 74; https://www.samsung.com/us/apps/bixby/; https://www.samsung.com/us/apps/bixby/bixby-user-guide/.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Bixby Bixby is a virtual assistant that learns, evolves, and adapts to you. It learns your routines, helps you set up reminders based on time and location, and is built in to your favorite apps. Visit **samsung.com/us/support/owners/app/Bixby** for more information. ○ From a Home screen, press and hold the **Side** key. **TIP** You can also access Bixby from the Apps list. **Bixby Vision** Bixby is integrated with your Camera, Gallery, and Internet apps to give you a deeper understanding of what you see. It provides contextual icons for translation, QR code detection, landmark recognition, or shopping. **Camera** Bixby Vision is available on the Camera viewfinder to help understand what you see. ○ From **Camera**, tap **More** > **Bixby Vision** and follow the prompts. **Gallery** Bixby Vision can be used on pictures and images saved in the Gallery app. 1. From **Gallery**, tap a picture to view it. 2. Tap **Bixby Vision** and follow the prompts. **Internet** Bixby Vision can help you find out more about an image you find in the Internet app. 1. From **Internet**, touch and hold an image until a pop-up menu is displayed. 2. Tap **Search with Bixby Vision** and follow the prompts.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy S23 Ultra technical specification; https://downloadcenter.samsung.com/content/UM/202302/20230228053129621/SAM_S911_S916_S918_EN_UM_OS13_020223_FINAL_AC_022023.pdf at 41.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

Bixby

Introduction

Bixby is a user interface that helps you use your device more conveniently.

You can talk to Bixby or type text. Bixby will launch a feature you request or show the information you want. Visit www.samsung.com/bixby for more information.

Bixby is only available in some languages, and it may not be available depending on the region.

Starting Bixby

Press and hold the Side key to launch Bixby. The Bixby intro page will appear. After you select the language to use with Bixby, sign in to your Samsung account, and complete the setup by following the on-screen instructions, the Bixby screen will appear.

Using Bixby

While pressing and holding the Side key, say what you want to Bixby. Alternatively, say the wake-up phrase and say what you want.

For example, while pressing and holding the Side key, say "How's the weather today?" The weather information will appear on the screen.

If Bixby asks you a question during a conversation, you can continue to talk to Bixby without pressing the Side key or tapping .

Waking up Bixby using your voice

You can start a conversation with Bixby by saying "Hi, Bixby" or "Bixby". Register your voice so that Bixby will respond to your voice.

1 Open the **Bixby** app and tap → **Voice wake-up**.

2 Tap the switch to turn it on.

3 Select a wake-up phrase you want under **Wake-up phrase**.

4 Tap the **Respond to my voice** switch to turn it on.

5 Follow the on-screen instructions to complete the setup.
Now you can say the wake-up phrase and start a conversation.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

Communicating by typing text

If your voice is not recognized because of noisy environments or if you are in a situation where speaking is difficult, you can communicate with Bixby through text.

Open the **Bixby** app, tap , and then type what you want.

During the communication, Bixby also will answer you through text instead of voice feedback.

Bixby Vision

Introduction

Bixby Vision is a service that provides various features based on image recognition. You can use Bixby Vision to search for information by recognizing objects.

- This feature may not be available or you might not get correct search results depending on the image size, format, or resolution.
- Samsung is not responsible for the product information provided by Bixby Vision.

Launching Bixby Vision

Launch Bixby Vision using one of these methods.

- In the **Camera** app, tap **MORE** on the shooting modes list and tap **BIXBY VISION**.
- In the **Gallery** app, select an image and tap .
- In the **Samsung Internet** app, touch and hold an image and tap **Search with Bixby Vision**.
- If you added the Bixby Vision app icon to the Apps screen, open the **Bixby Vision** app.

Using Bixby Vision

1 Launch Bixby Vision.

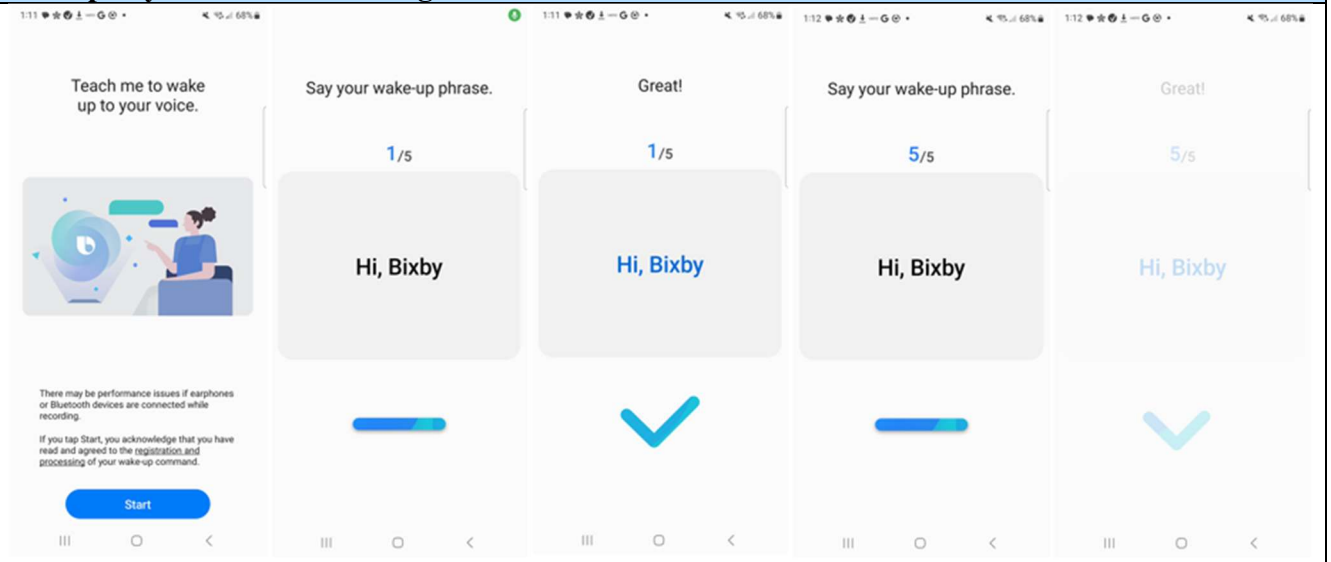
2 Select a feature you want to use.

- **TRANSLATE**: Recognize text from documents or images and translate it.
- **TEXT**: Recognize text from documents or images and extract it.
- **DISCOVER**: Search for images similar to the recognized object online and related information.

The available features and search results may vary depending on the region or carrier.

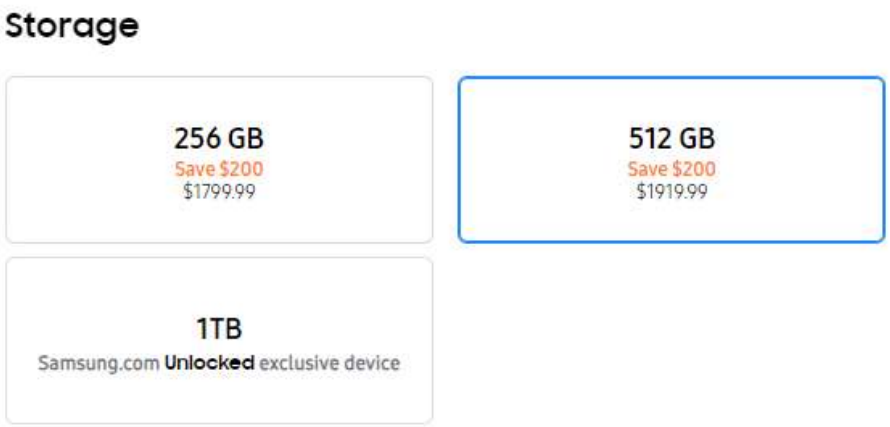
Galaxy S23 Series User Guide at pg. 88-90.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement



Galaxy S23 Ultra figures showing the one or more processors (chipset) capable of verifying that a user's command voice is identical to the user's command voice stored in the internal RAM or memory device.



U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 MEMORY Card slot: No Internal: 256GB 12GB RAM, 512GB 12GB RAM, 1TB 12GB RAM UFS 3.1 Galaxy Z Fold4 technical specifications; https://www.samsung.com/us/smartphones/galaxy-z-fold4/buy/galaxy-z-fold4-512gb-att-sm-f936uzeeatt/; https://www.gsmarena.com/samsung_galaxy_z_fold4-11737.php.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy Z Fold4 Camera features  **Capture and view** View the pictures and videos you capture while still using your camera. Images will be shown on the side panel until the Camera app is closed. This feature is only available when the device is open. ○ From **Camera**, tap **Capture View**. Galaxy Z Fold4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/galaxy_z_fold4_camera_features_d1e3185.

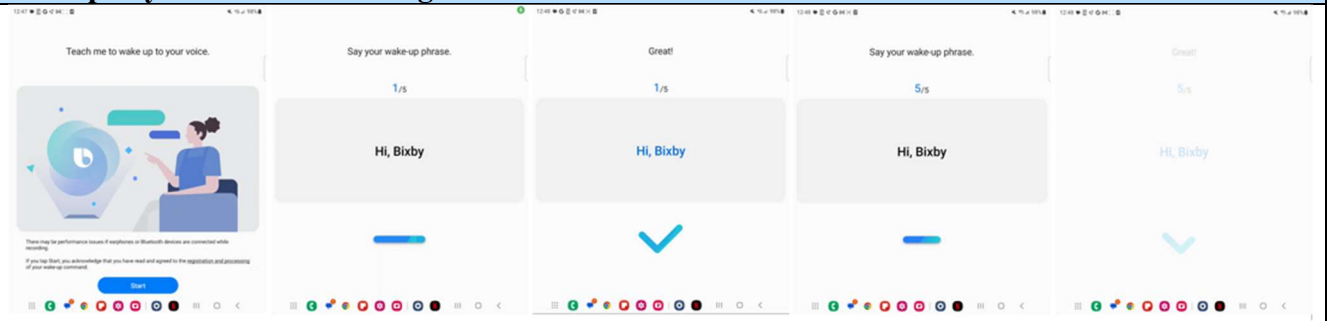
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
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U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy Z Fold4 technical specification; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/galaxy_z_fold4_d1e605.html.

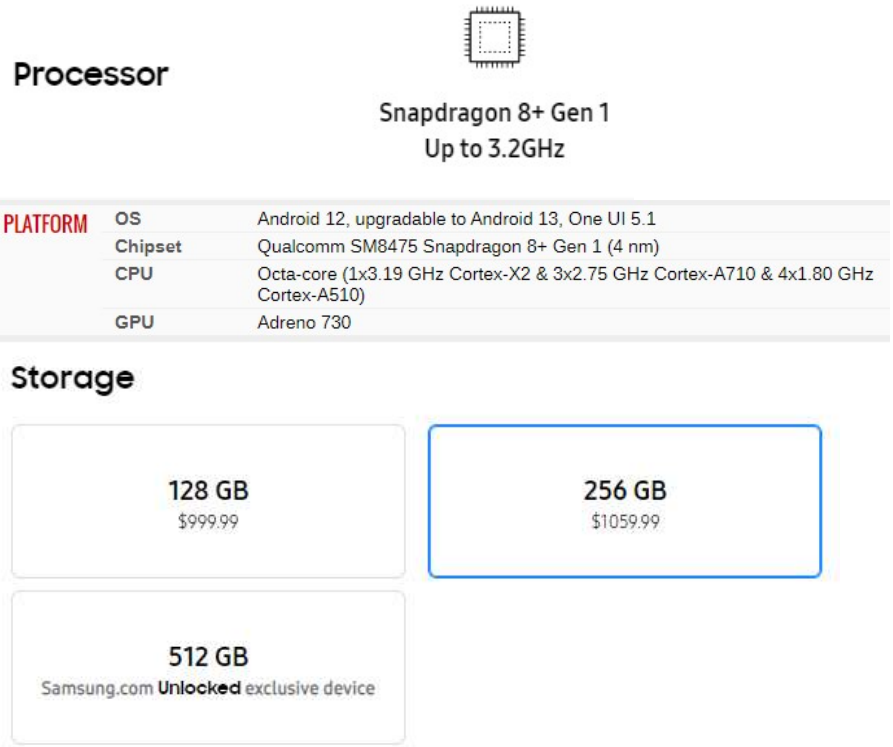
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Bixby displays customized content based on your interactions. Bixby learns from your usage patterns and suggests content you may like. For more information, see Bixby. Galaxy Z Fold4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/samsung_apps_d1e4429.html#d1e4524; https://www.samsung.com/us/apps/bixby/; https://www.samsung.com/us/apps/bixby/bixby-user-guide/.

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	Bixby Bixby is a virtual assistant that learns, evolves, and adapts to you. It learns your routines, helps you set up reminders based on time and location, and is built in to your favorite apps. Visit **samsung.com/us/support/owners/app/Bixby** for more information. • From a Home screen, press and hold the **Side** key. **TIP** You can also access Bixby from the Apps list. **Bixby Vision** Bixby is integrated with your Camera, Gallery, and Internet apps to give you a deeper understanding of what you see. It provides contextual icons for translation, QR code detection, landmark recognition, or shopping. **Camera** Bixby Vision is available on the Camera viewfinder to help understand what you see. • From **Camera**, tap **More** > **Bixby Vision** and follow the prompts. **Gallery** Bixby Vision can be used on pictures and images saved in the Gallery app. 1. From **Gallery**, tap a picture to view it. 2. Tap **Bixby Vision** and follow the prompts. **Internet** Bixby Vision can help you find out more about an image you find in the Internet app. 1. From **Internet**, touch and hold an image until a pop-up menu is displayed. 2. Tap **Search with Bixby Vision** and follow the prompts. Galaxy Z Fold4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/bixby_d1e1993.html#d1e2011.

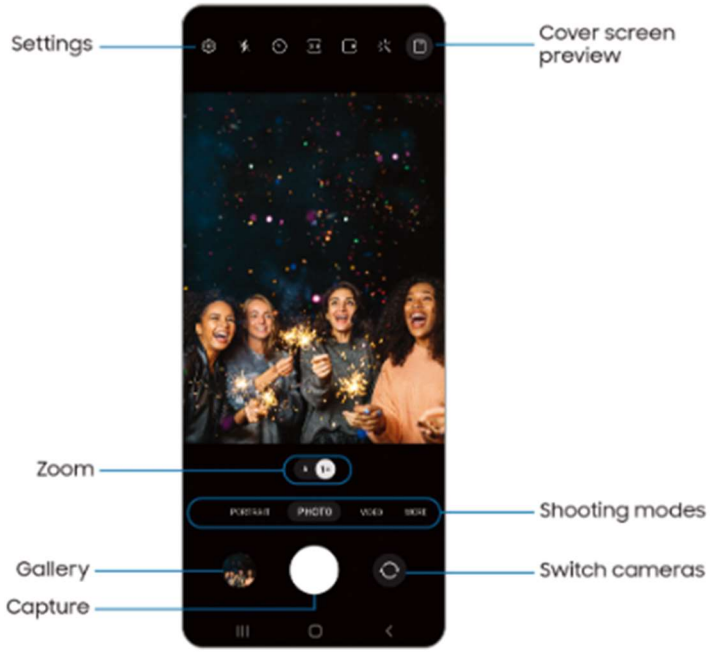
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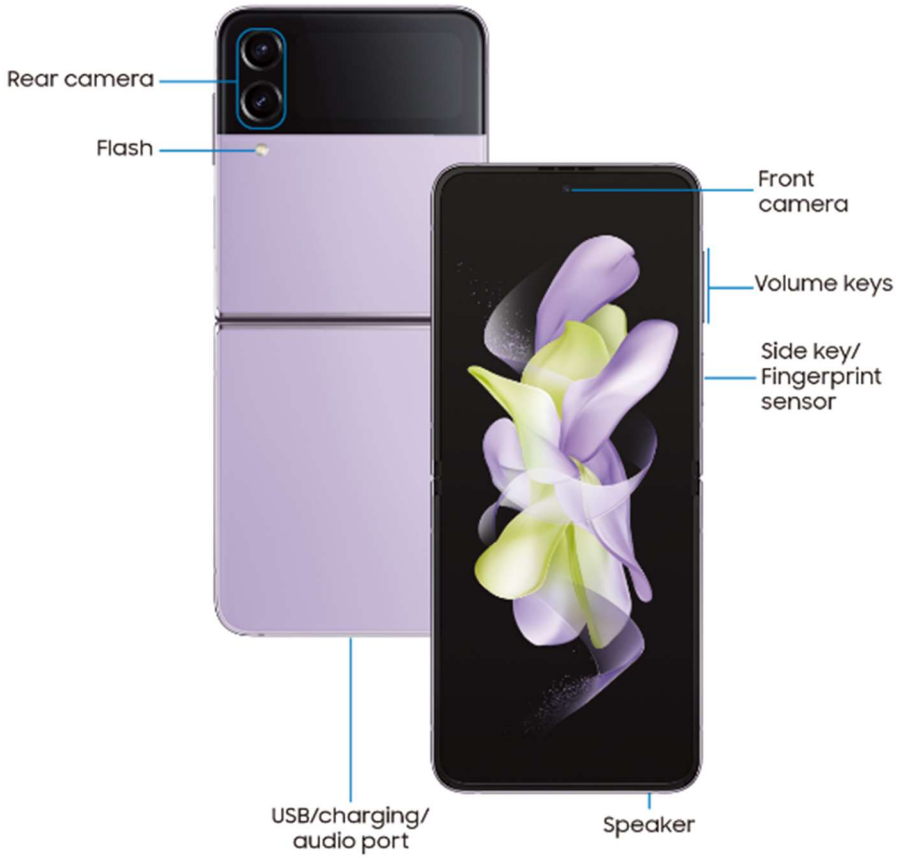
Galaxy Z Fold4 figures showing the command voice registration process being Bixby receiving command voices to teach Bixby a user's voice.



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	 Galaxy Z Flip4 technical specifications; https://www.samsung.com/us/smartphones/galaxy-z-flip4/buy/galaxy-z-flip4-256gb-t-mobile-sm-f721uzdexau/; https://www.gsmarena.com/samsung_galaxy_z_flip4-11538.php.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy Z Flip4 Camera features  **Selfies in Flex mode** Use your camera in Flex mode for hands-free selfies. 1. Place your phone on a flat surface in table top view. 2. From **Camera**, tap **Portrait**. 3. Tap or to move the camera preview to the top or bottom half of the screen. Galaxy Z Flip4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/galaxy_z_flip4_camera_features_d1e3206.html.

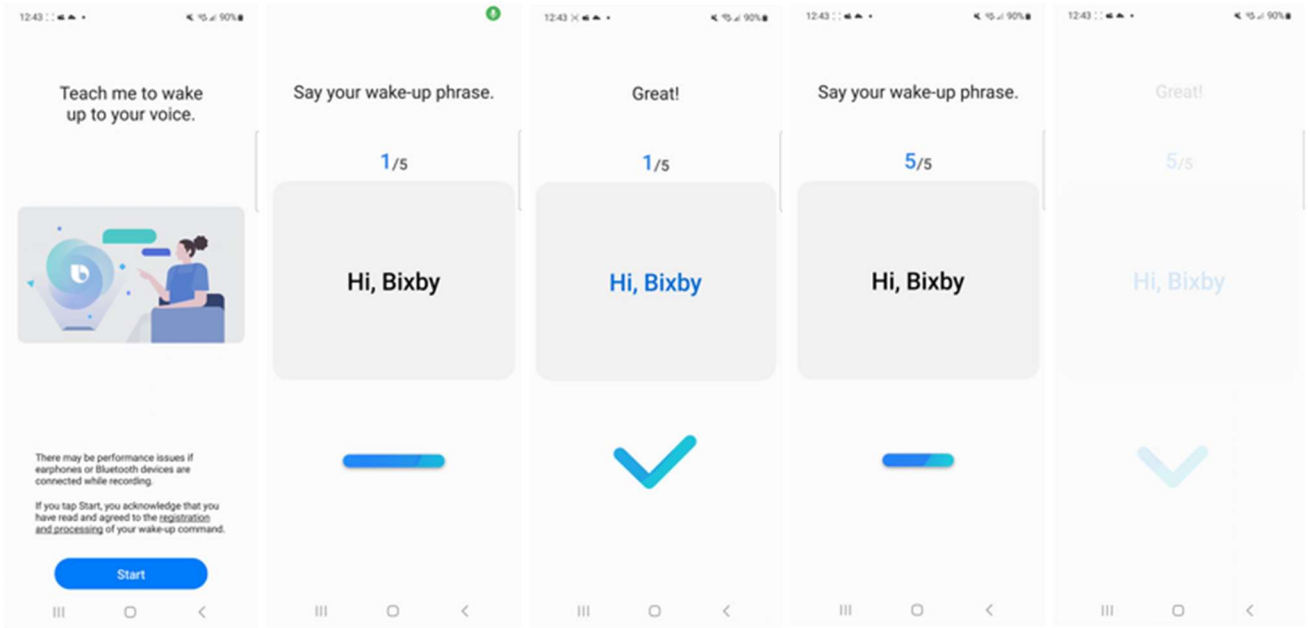
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Configure shooting mode Allow the camera to determine the ideal mode for your pictures or choose from several shooting modes. ○ From **Camera**, swipe the screen right and left to change shooting modes. • **Portrait**: Adjust the background of your shots for portrait photos. • **Photo**: Allow the camera to determine the ideal settings for pictures. • **Video**: Allow the camera to determine the ideal settings for videos. • **More**: Choose other available shooting modes. Tap **Add** to drag modes into or out of the shooting modes tray at the bottom of the Camera screen. - **Pro**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while taking pictures. - **Pro video**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while recording videos. - **Single take**: Capture multiple pictures and video clips from different angles. - **Panorama**: Create a linear image by taking pictures in either a horizontal or vertical direction. - **Night**: Use this to take photos in low-light conditions, without using the flash. - **Food**: Take pictures that emphasize the vivid colors of food. - **Super slow-mo**: Record videos at an extremely high frame rate for viewing in high quality slow motion. You can play a specific section of each video in slow motion after recording it. - **Slow motion**: Record videos at a high frame rate for viewing in slow motion. - **Hyperlapse**: Create a time lapse video by recording at various frame rates. The frame rate is adjusted depending on the scene being recorded and the movement of the device. - **Portrait video**: Adjust the background of your shots for portrait videos. - **Director's view**: Access advanced features such as lock onto a subject in view, change between different rear camera lenses, and more. Galaxy Z Flip4 technical specification; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/configure_shooting_mode_d1e3233.html.

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	Galaxy Z Flip4  Galaxy Z Flip4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/galaxy_z_flip4_d1e661.html.

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U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
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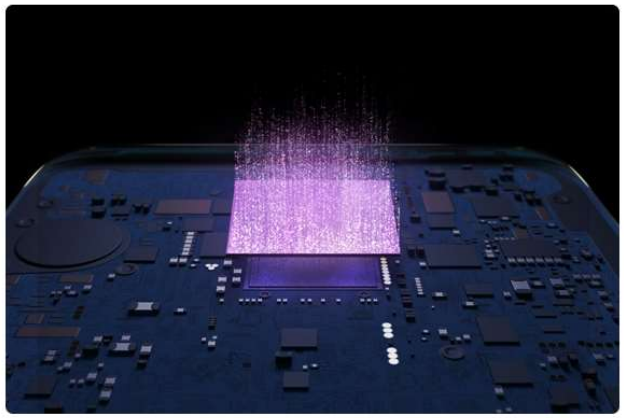


Galaxy Z Flip4 figures showing the one or more processors (chipset) capable of verifying that a user's command voice is identical to the user's command voice stored in the internal RAM or memory device.



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Performance



Impressive speed. Powerful processor

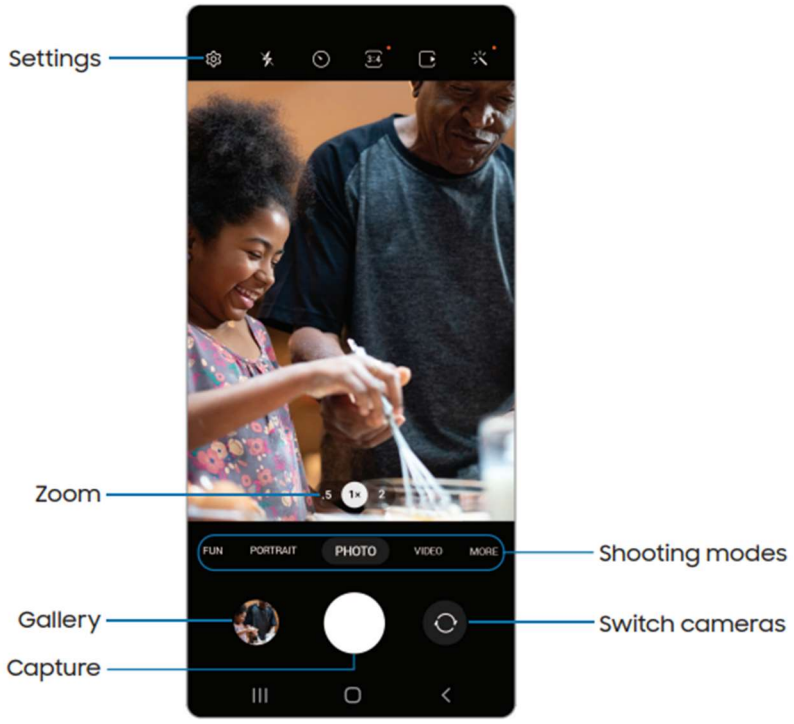
The powerful Octa-core processor opens up a new range of possibilities with heightened performance and capacity.

PLATFORM	OS	Android 13, One UI 5.1
	Chipset	Exynos 1380 (5 nm)
	CPU	Octa-core (4x2.4 GHz Cortex-A78 & 4x2.0 GHz Cortex-A55)
	GPU	Mali-G68 MP5

CAPACITY

128GB

MEMORY	Card slot	microSDXC (uses shared SIM slot)
	Internal	128GB 6GB RAM, 128GB 8GB RAM, 256GB 6GB RAM, 256GB 8GB RAM

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	Galaxy A54 5G technical specifications; https://www.samsung.com/us/mobile/phones/galaxy-a/galaxy-a54-5g-128gb-verizon-sm-a546vzkbvzw/; https://www.gsmarena.com/samsung_galaxy_a54-12070.php. Camera Enjoy a full kit of pro lenses and pro-grade video modes and settings. ○ From Apps, tap Camera. TIP Quickly press the Side key twice to open the Camera app. 

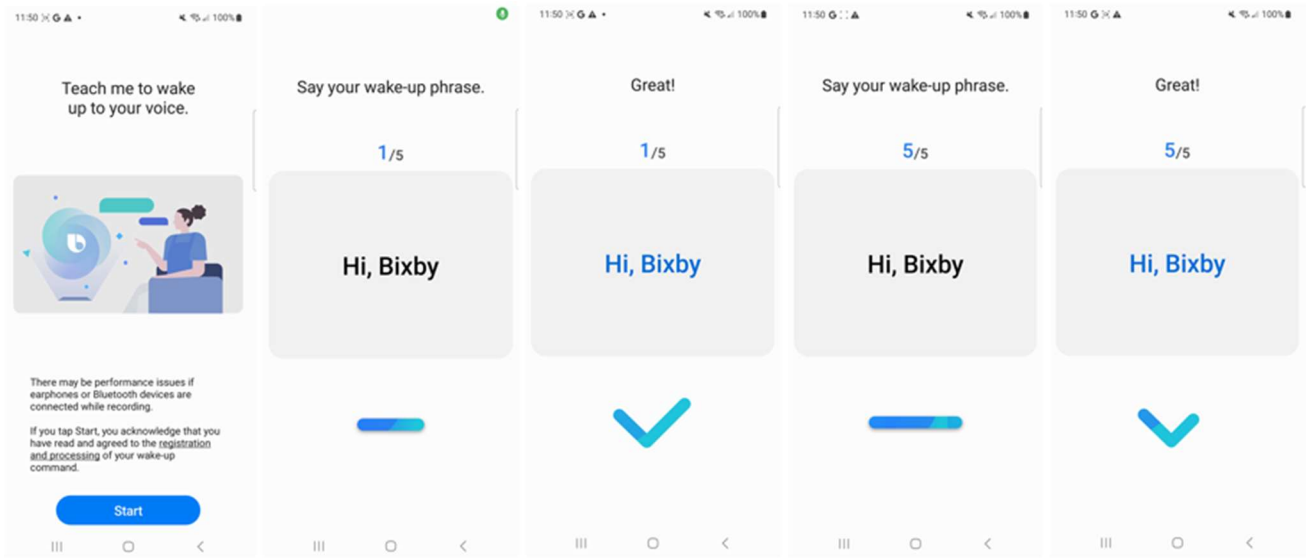
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy A54 5G technical specifications; https://downloadcenter.samsung.com/content/UM/202304/20230407022332214/SAM_A546_EN_UM_OS13_040523_FINAL.pdf at 40. Configure shooting mode Allow the camera to determine the ideal mode for your pictures or choose from several shooting modes. ○ From Camera, swipe the screen right and left to change shooting modes. • **Fun**: Change your look and reimagine your world with unique Snapchat Lenses. • **Portrait**: Adjust the background of your shots for portrait photos. • **Photo**: Allow the camera to determine the ideal settings for pictures. • **Video**: Allow the camera to determine the ideal settings for videos. • **More**: Choose other available shooting modes. Tap Add to drag modes into or out of the shooting modes tray at the bottom of the Camera screen. - **Pro**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while taking pictures. - **Macro**: Capture close-up images of objects from 3-5 cm away. - **Pro video**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while recording videos.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	- **Single take**: Capture multiple pictures and video clips from different angles. - **Panorama**: Create a linear image by taking pictures in either a horizontal or vertical direction. - **Night**: Use this to take photos in low-light conditions, without using the flash. - **Food**: Take pictures that emphasize the vivid colors of food. - **Super slow-mo**: Record videos at an extremely high frame rate for viewing in high quality slow motion. You can play a specific section of each video in slow motion after recording it. - **Slow motion**: Record videos at a high frame rate for viewing in slow motion. - **Hyperlapse**: Create a time lapse video by recording at various frame rates. The frame rate is adjusted depending on the scene being recorded and the movement of the device. *Id.* at 40–41.

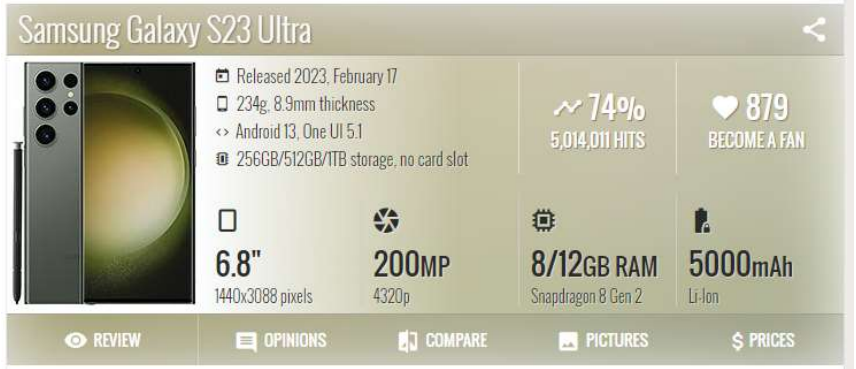
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy A54 5G technical specifications; https://downloadcenter.samsung.com/content/UM/202304/20230407022332214/SAM_A546_EN_UM_OS13_040523_FINAL.pdf at 5.

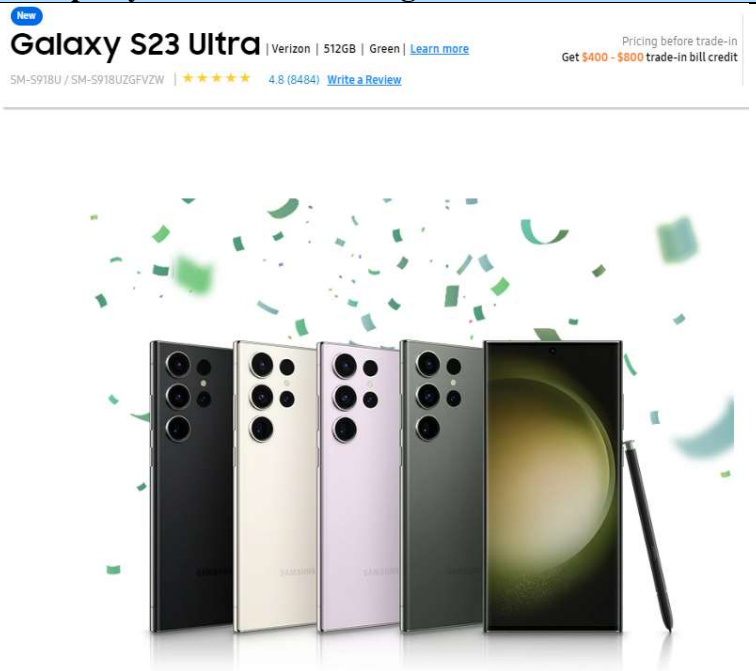
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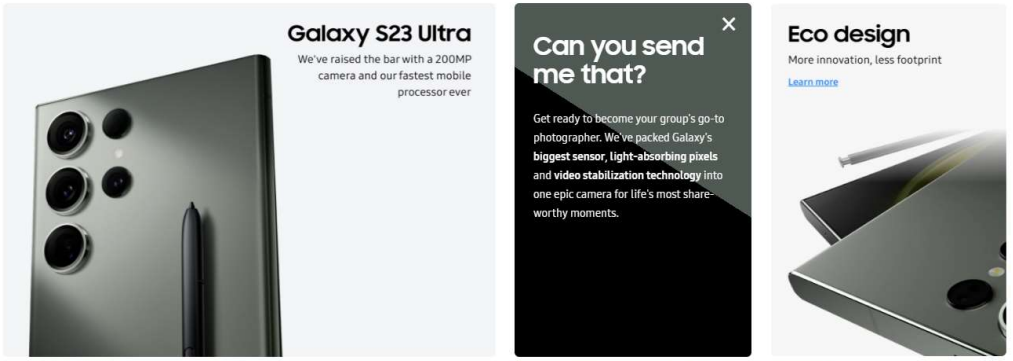
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	 Galaxy A54 5G figures showing the one or more processors (chipset) capable of verifying that a user's command voice is identical to the user's command voice stored in the internal RAM or memory device. *See also* Appendix 8 showing that the remaining Accused Samsung '757 Products implement Bixby. *See* https://www.samsung.com/us/apps/bixby/. Doctrine of Equivalents: To the extent Samsung argues that this limitation is not literally met in the Accused Samsung '757 Products, Maxell asserts that this limitation is met under the doctrine of equivalents because the identified structure matches the function, way, and result of the claimed element and, to the extent there is a difference, the difference is insubstantial. For example, to the extent that Samsung argues that the Accused Samsung '757 Products does not have a recorder configured to perform control such that a command voice to be recorded in the command voice storage is received from the audio input interface and stored in the command voice storage as a command voice registration process. Using software, hardware, or combination of the two, the Accused Samsung '757 Products perform

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	substantially the same function (for example, controlling to store a command voice in the command voice storage as a command voice registration) in substantially the same way as claimed (by using audio processing unit, storage unit, operation unit, video processing unit, communication processing unit, and/or main control unit). The performance of this function achieve substantially the same result, for example, performing a voice registration process by storing a command voice in a command voice storage. Furthermore, to the extent Samsung argues that this limitation is not literally met in the Accused Samsung '757 Products, Maxell asserts that this limitation is met under the doctrine of equivalents because the identified structure matches the function, way, and result of the claimed element and, to the extent there is a difference, the difference is insubstantial. For example, to the extent that Samsung argues that the Accused Samsung '757 Products does not have a recorder that determines that the command voice instructs the photographing when the command voice input to the audio input interface is identical to the command voice stored in the command voice storage. Using software, hardware, or combination of the two, the Accused Samsung '757 Products perform substantially the same function (for example, determining that the command voice input is identical to the command voice stored in the command voice storage causing the recorder to instruct photographing) in substantially the same way as claimed (by using audio processing unit, storage unit, operation unit, video processing unit, communication processing unit, and/or main control unit). The performance of this function achieve substantially the same result, for example, determining that a command voice input is identical to a command voice in the command voice storage causing the recorder to instruct photographing. Moreover, to the extent Samsung argues that this limitation is not literally met in the Accused Samsung '757 Products, Maxell asserts that this limitation is met under the doctrine of equivalents because the identified structure matches the function, way, and result of the claimed element and, to the extent there is a difference, the difference is insubstantial. For example, to the extent that Samsung argues that the Accused Samsung '757 Products does not have a recorder that determines that the command voice does not instruct the photographing when the command voice input to the audio input interface is not identical to the command voice stored in the command voice storage. Using software, hardware, or combination of the two, the Accused Samsung '757 Products perform substantially the same function (for example, determining that the command voice input is not

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	identical to the command voice stored in the command voice storage causing the recorder to not instruct photographing) in substantially the same way as claimed (by using audio processing unit, storage unit, operation unit, video processing unit, communication processing unit, and/or main control unit). The performance of this function achieve substantially the same result, for example, determining that a command voice input is not identical to a command voice in the command voice storage causing the recorder to not instruct photographing.
[11.pre] An image recording method of an image recording device, comprising:	Each of the Accused Samsung '757 Products includes an image recording method of an image recording device. *See e.g.*, Technical Specifications of each of the Accused Samsung '757 Products available at Samsung's website showing that each of the devices include method of an image recording device (https://www.samsung.com/us/mobile/ and https://www.samsung.com/us/tablets/). As a non-limiting example of an image recording device, each of the Accused Samsung '757 Products is a smartphone and/or tablet. For example, the Accused Samsung '757 Products include a plurality of front and rear facing cameras that are configured to execute a plurality of different photographing processes such as taking still-images in different modes: 

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	 Galaxy S23 Ultra technical specifications; https://www.samsung.com/us/smartphones/galaxy-s23-ultra/buy/galaxy-s23-ultra-512gb-verizon-sm-s918uzgfvzw/?modelCode=SM-S918UZGFXAU; https://www.gsmarena.com/samsung_galaxy_s23_ultra-12024.php.

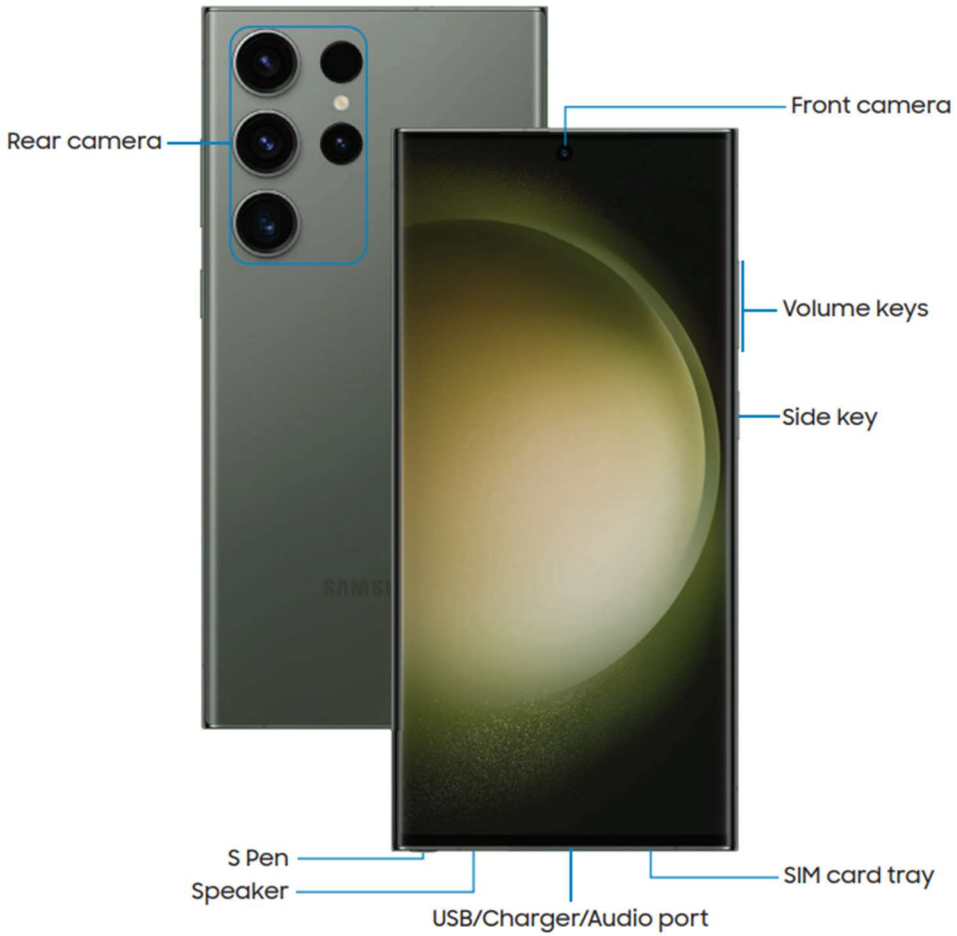
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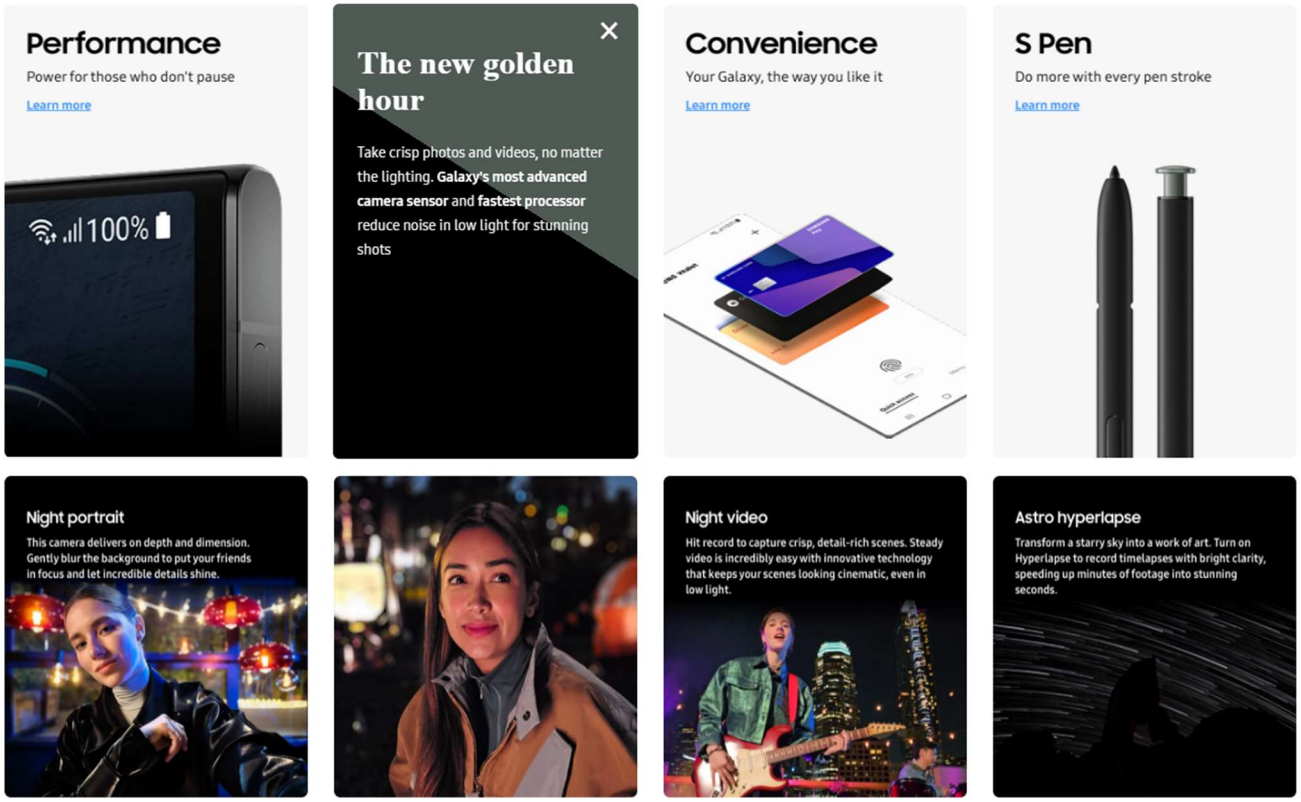


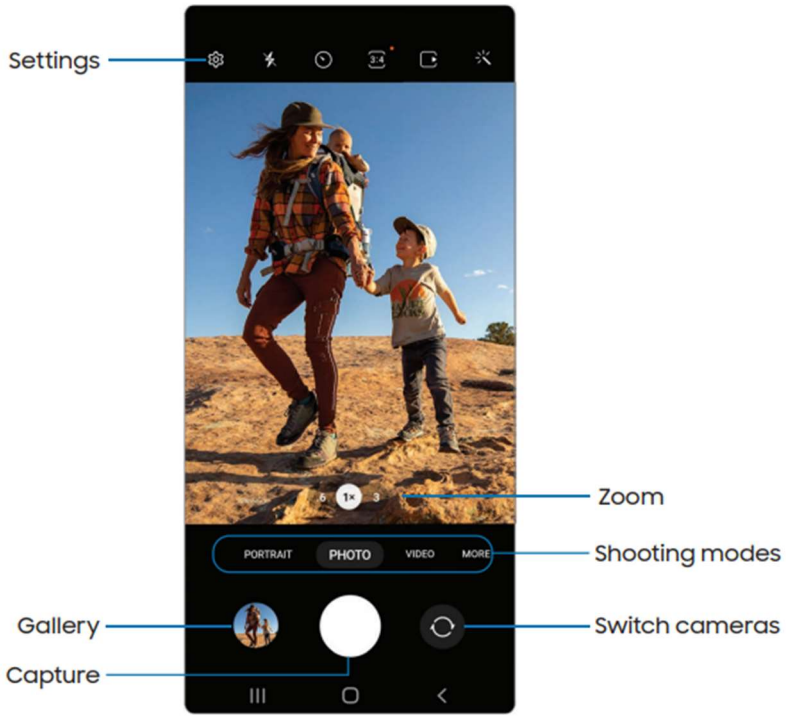


MAIN CAMERA	Quad	200 MP, f/1.7, 24mm (wide), 1/1.3", 0.6µm, multi-directional PDAF, Laser AF, OIS
		10 MP, f/4.9, 230mm (periscope telephoto), 1/3.52", 1.12µm, Dual Pixel PDAF, OIS, 10x optical zoom
		10 MP, f/2.4, 70mm (telephoto), 1/3.52", 1.12µm, Dual Pixel PDAF, OIS, 3x optical zoom
		12 MP, f/2.2, 13mm, 120˚ (ultrawide), 1/2.55", 1.4µm, Dual Pixel PDAF, Super Steady video
	Features	LED flash, auto-HDR, panorama
	Video	8K@24/30fps, 4K@30/60fps, 1080p@30/60/240fps, 1080p@960fps, HDR10+, stereo sound rec., gyro-EIS
SELFIE CAMERA	Single	12 MP, f/2.2, 26mm (wide), Dual Pixel PDAF
	Features	Dual video call, Auto-HDR, HDR10+
	Video	4K@30/60fps, 1080p@30fps

Galaxy S23 Ultra technical specifications; https://www.samsung.com/us/smartphones/galaxy-s23-ultra/buy/galaxy-s23-ultra-512gb-verizon-sm-s918uzgfvzw/?modelCode=SM-S918UZGFXAU; https://www.gsmarena.com/samsung_galaxy_s23_ultra-12024.php.

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	Galaxy S23 Ultra  Galaxy S23 Ultra technical specifications; https://downloadcenter.samsung.com/content/UM/202302/20230228053129621/SAM_S911_S916_S918_EN_UM_OS13_020223_FINAL_AC_022023.pdf at 5.

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	Camera Enjoy a full kit of pro lenses and pro-grade video modes and settings. ○ From Apps, tap Camera. TIP Quickly press the Side key twice to open the Camera app.  Galaxy S23 Ultra technical specification; https://downloadcenter.samsung.com/content/UM/202302/20230228053129621/SAM_S911_S916_S918_EN_UM_OS13_020223_FINAL_AC_022023.pdf at 58.

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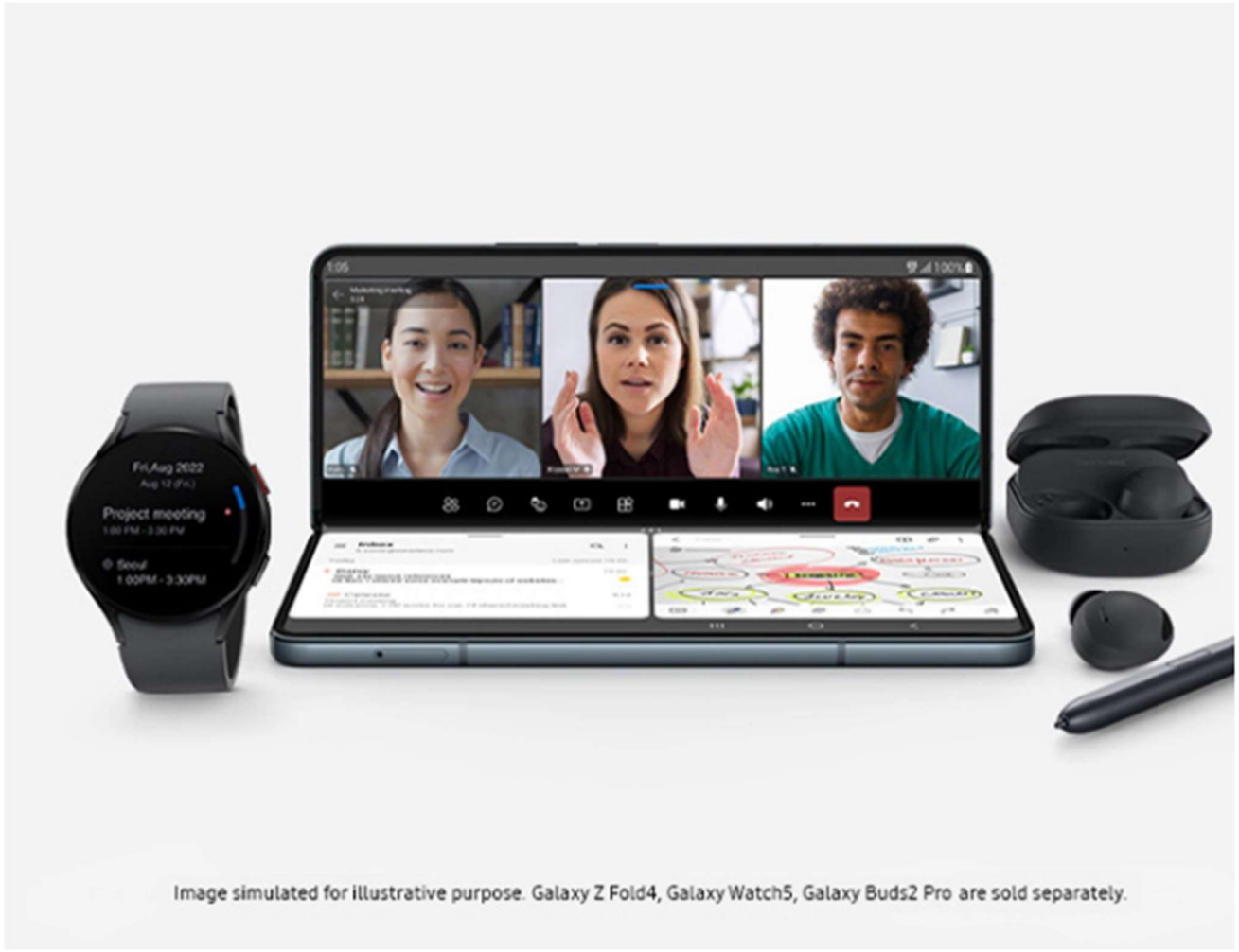
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

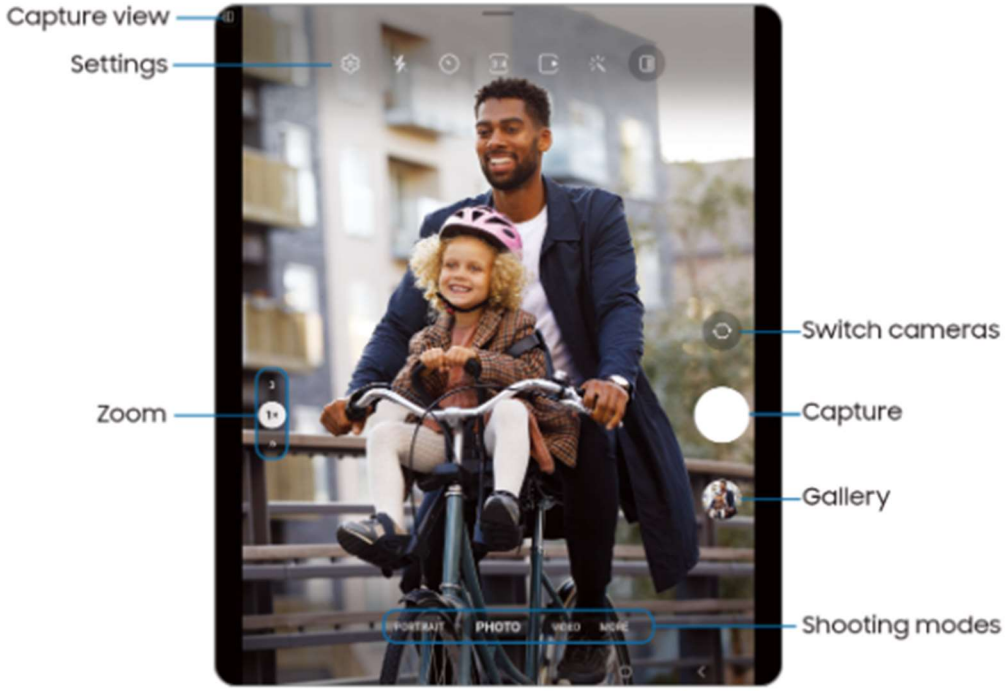


MAIN CAMERA	Triple	50 MP, f/1.8, 23mm (wide), 1.0µm, Dual Pixel PDAF, OIS
		10 MP, f/2.4, 66mm (telephoto), 1.0µm, PDAF, OIS, 3x optical zoom
		12 MP, f/2.2, 123˚, 12mm (ultrawide), 1.12µm
	Features	LED flash, HDR, panorama
	Video	8K@24fps, 4K@60fps, 1080p@60/240fps (gyro-EIS), 720p@960fps (gyro-EIS), HDR10+
SELFIE CAMERA	Single	4 MP, f/1.8, 26mm (wide), 2.0µm, under display
		Cover camera:
		10 MP, f/2.2, 24mm (wide), 1/3", 1.22µm
	Features	HDR
	Video	4K@30/60fps, 1080p@30/60fps, gyro-EIS

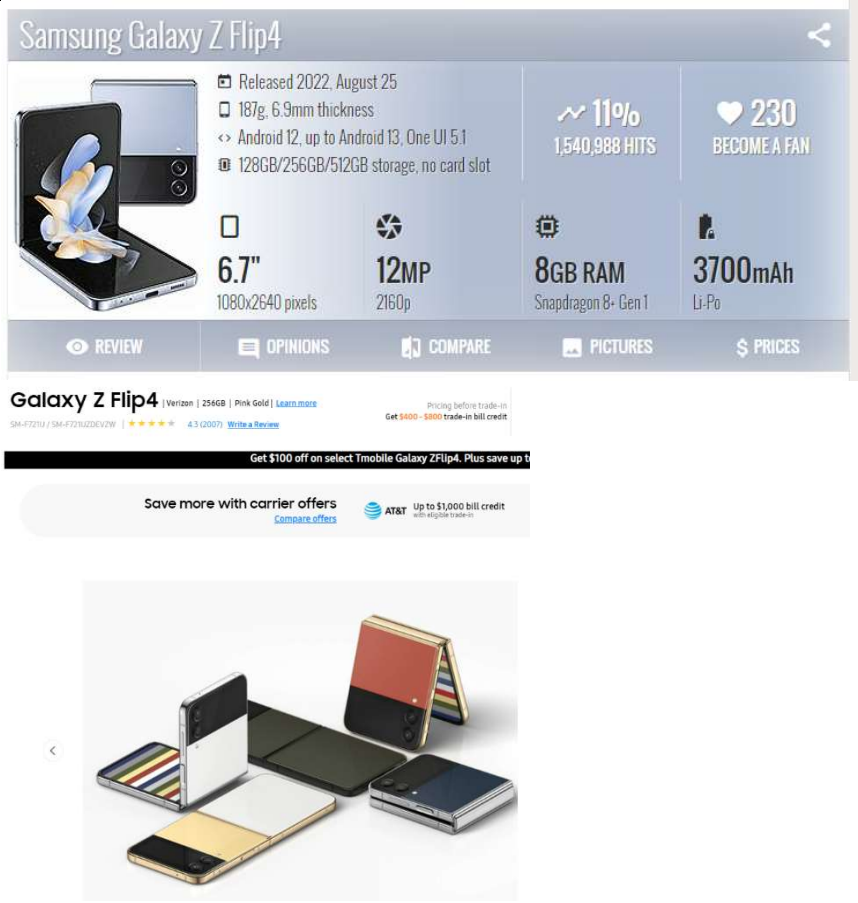
Galaxy Z Fold4 technical specifications; https://www.samsung.com/us/smartphones/galaxy-z-fold4/buy/galaxy-z-fold4-512gb-att-sm-f936uzeeatt/; https://www.gsmarena.com/samsung_galaxy_z_fold4-11737.php.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy Z Fold4 technical specification; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/galaxy_z_fold4_d1e605.html.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy Z Fold4 technical specifications; https://www.samsung.com/us/smartphones/galaxy-z-fold4/buy/galaxy-z-fold4-512gb-att-sm-f936uzeeatt/.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy Z Fold4 Camera features  **Capture and view** View the pictures and videos you capture while still using your camera. Images will be shown on the side panel until the Camera app is closed. This feature is only available when the device is open. ○ From **Camera**, tap **Capture View**. Galaxy Z Fold4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/galaxy_z_fold4_camera_features_d1e3185.

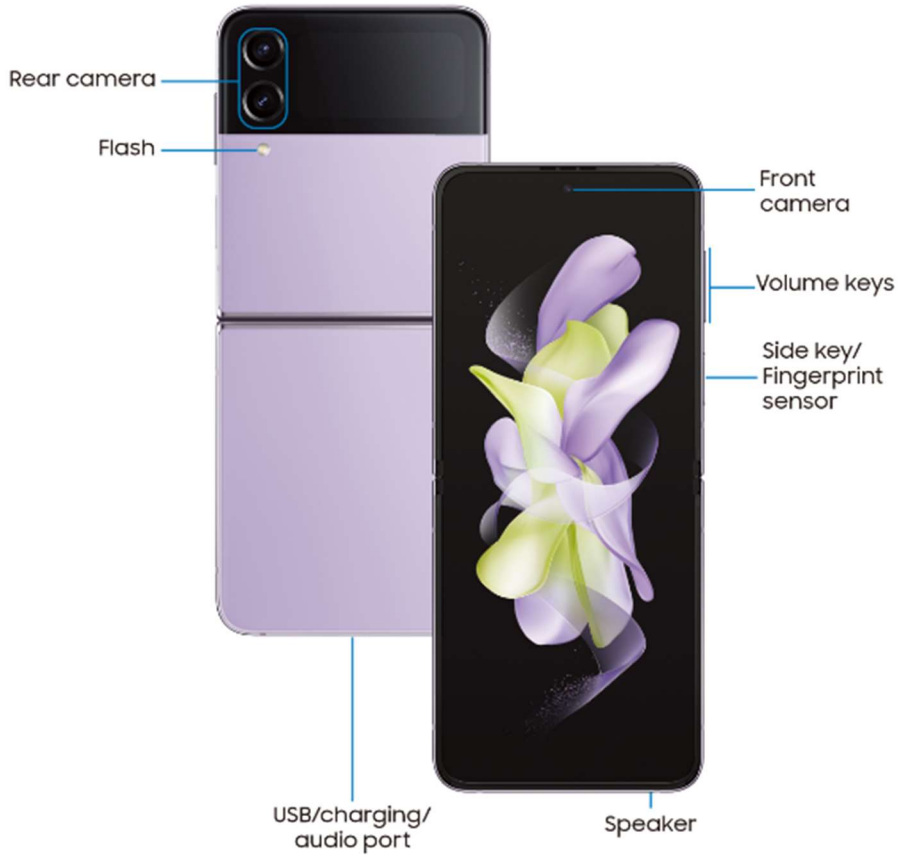
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Configure shooting mode Allow the camera to determine the ideal mode for your pictures or choose from several shooting modes. ◦ From **Camera**, swipe the screen right and left to change shooting modes. • **Portrait**: Adjust the background of your shots for portrait photos. • **Photo**: Allow the camera to determine the ideal settings for pictures. • **Video**: Allow the camera to determine the ideal settings for videos. • **More**: Choose other available shooting modes. Tap **Add** to drag modes into or out of the shooting modes tray at the bottom of the Camera screen. - **Pro**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while taking pictures. - **Pro video**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while recording videos. - **Single take**: Capture multiple pictures and video clips from different angles. - **Panorama**: Create a linear image by taking pictures in either a horizontal or vertical direction. - **Night**: Use this to take photos in low-light conditions, without using the flash. - **Food**: Take pictures that emphasize the vivid colors of food. - **Super slow-mo**: Record videos at an extremely high frame rate for viewing in high quality slow motion. You can play a specific section of each video in slow motion after recording it. - **Slow motion**: Record videos at a high frame rate for viewing in slow motion. - **Hyperlapse**: Create a time lapse video by recording at various frame rates. The frame rate is adjusted depending on the scene being recorded and the movement of the device. - **Portrait video**: Adjust the background of your shots for portrait videos. - **Director's view**: Access advanced features such as lock onto a subject in view, change between different rear camera lenses, and more. Galaxy Z Fold4 technical specification; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/configure_shooting_mode_d1e3233.html.

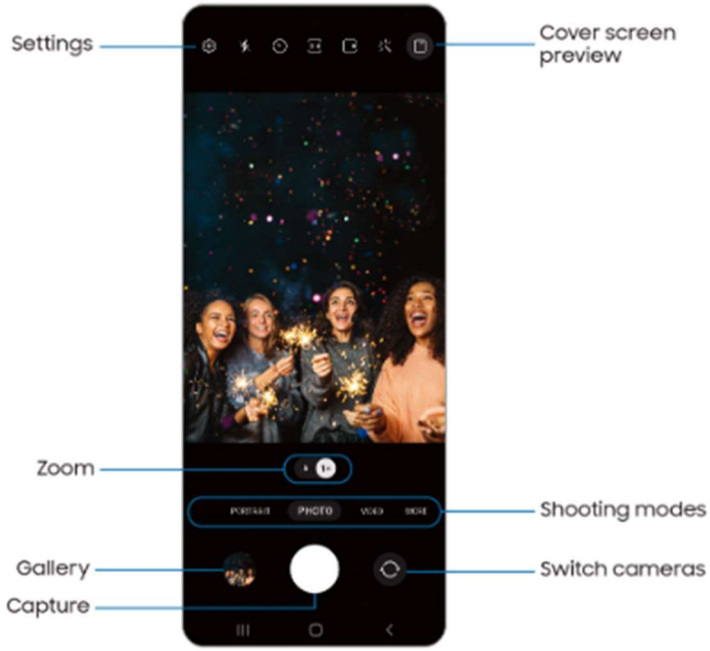
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy Z Flip4 technical specifications; https://www.samsung.com/us/smartphones/galaxy-z-flip4/buy/galaxy-z-flip4-256gb-t-mobile-sm-f721uzdexau/; https://www.gsmarena.com/samsung_galaxy_z_flip4-11538.php.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

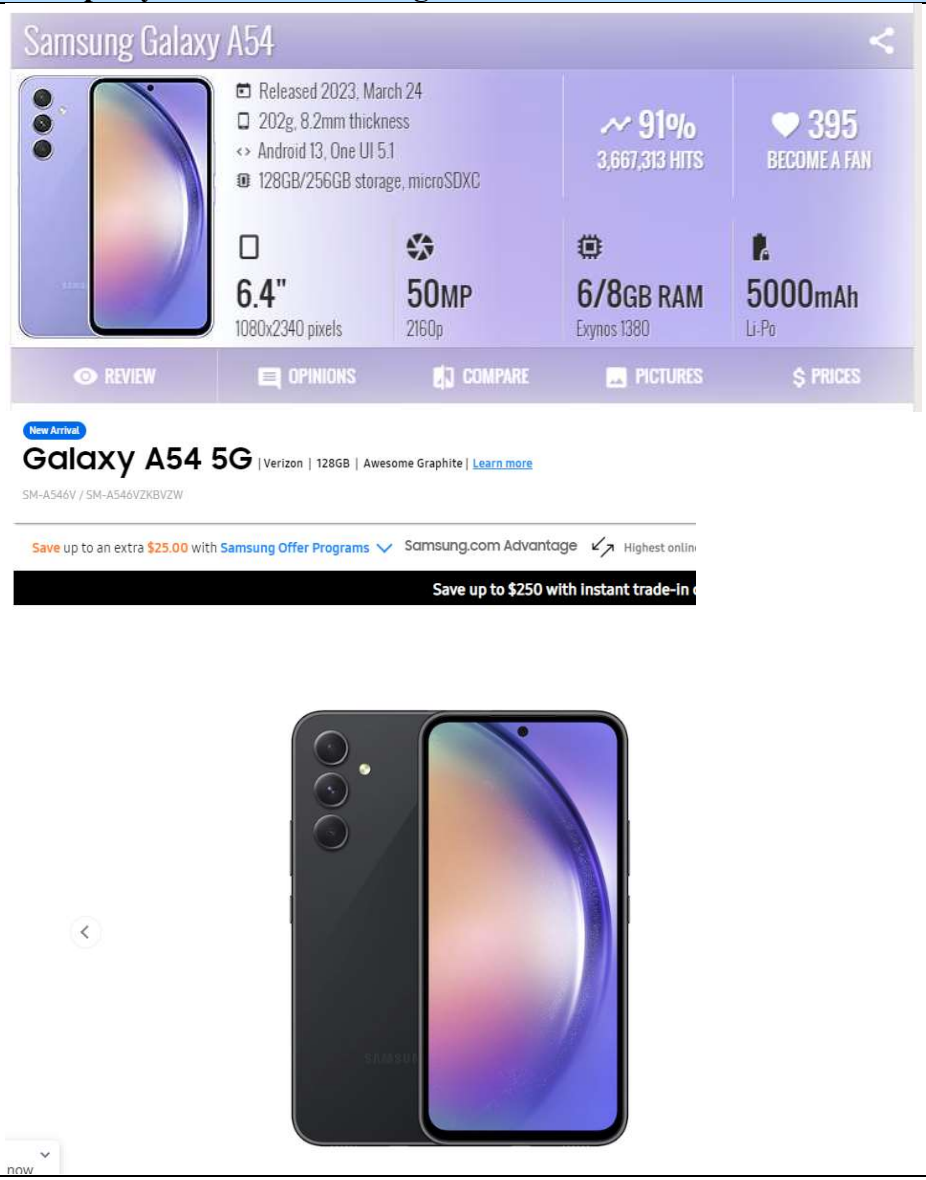
MAIN CAMERA	Dual	12 MP, f/1.8, 24mm (wide), 1/1.76", 1.8µm, Dual Pixel PDAF, OIS
		12 MP, f/2.2, 123° (ultrawide), 1.12µm
	Features	LED flash, HDR, panorama
	Video	4K@30/60fps, 1080p@60/240fps, 720p@960fps, HDR10+
SELFIE CAMERA	Single	10 MP, f/2.4, 26mm (wide), 1.22µm
	Features	HDR
	Video	4K@30fps

Galaxy Z Flip4 technical specifications; https://www.gsmarena.com/samsung_galaxy_z_flip4-11538.php.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy Z Flip4  Galaxy Z Flip4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/galaxy_z_flip4_d1e661.html.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy Z Flip4 Camera features  **Selfies in Flex mode** Use your camera in Flex mode for hands-free selfies. 1. Place your phone on a flat surface in table top view. 2. From **Camera**, tap **Portrait**. 3. Tap or to move the camera preview to the top or bottom half of the screen. Galaxy Z Flip4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/galaxy_z_flip4_camera_features_d1e3206.html.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Configure shooting mode Allow the camera to determine the ideal mode for your pictures or choose from several shooting modes. ◦ From **Camera**, swipe the screen right and left to change shooting modes. • **Portrait**: Adjust the background of your shots for portrait photos. • **Photo**: Allow the camera to determine the ideal settings for pictures. • **Video**: Allow the camera to determine the ideal settings for videos. • **More**: Choose other available shooting modes. Tap **Add** to drag modes into or out of the shooting modes tray at the bottom of the Camera screen. - **Pro**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while taking pictures. - **Pro video**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while recording videos. - **Single take**: Capture multiple pictures and video clips from different angles. - **Panorama**: Create a linear image by taking pictures in either a horizontal or vertical direction. - **Night**: Use this to take photos in low-light conditions, without using the flash. - **Food**: Take pictures that emphasize the vivid colors of food. - **Super slow-mo**: Record videos at an extremely high frame rate for viewing in high quality slow motion. You can play a specific section of each video in slow motion after recording it. - **Slow motion**: Record videos at a high frame rate for viewing in slow motion. - **Hyperlapse**: Create a time lapse video by recording at various frame rates. The frame rate is adjusted depending on the scene being recorded and the movement of the device. - **Portrait video**: Adjust the background of your shots for portrait videos. - **Director's view**: Access advanced features such as lock onto a subject in view, change between different rear camera lenses, and more. Galaxy Z Flip4 technical specification; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/configure_shooting_mode_d1e3233.html.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy A54 5G technical specifications; https://www.samsung.com/us/mobile/phones/galaxy-a54/buy/; https://www.gsmarena.com/samsung_galaxy_a54-12070.php.

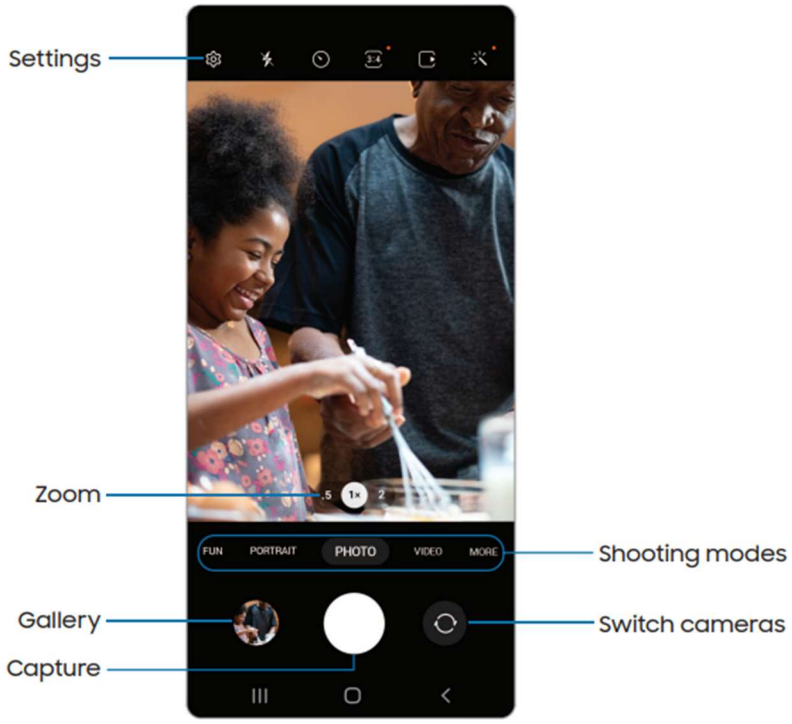


MAIN CAMERA	Triple	50 MP, f/1.8, (wide), 1/1.56", 1.0µm, PDAF, OIS
		12 MP, f/2.2, 123˚ (ultrawide), 1.12µm
		5 MP, f/2.4, (macro)
	Features	LED flash, panorama, HDR
	Video	4K@30fps, 1080p@30/60fps, 720p@480fps
SELFIE CAMERA	Single	32 MP, f/2.2, 26mm (wide), 1/2.8", 0.8µm
	Video	4K@30fps, 1080p@30/60fps

Samsung Galaxy A54 5G technical specifications; Galaxy A54 5G, 128GB (Unlocked) Phones - SM-A546UZKBXAA | Samsung US; https://www.gsmarena.com/samsung_galaxy_a54-12070.php.

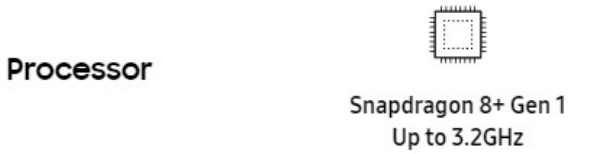
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy A54 5G technical specifications; https://downloadcenter.samsung.com/content/UM/202304/20230407022332214/SAM_A546_EN_UM_OS13_040523_FINAL.pdf at 5.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Samsung Galaxy A54 5G technical specifications; https://www.samsung.com/us/mobile/phones/galaxy-a/galaxy-a54-5g-128gb-unlocked-sm-a546uzkbxaa/?cid=sem-mktg-pfs-mob-us-google-na-04062023-141977-&ds_e=GOOGLE-cr:0-pl:331187244-&ds_c=FF~A54+Core_CN~hhp+a+series_PH~on_MK~usnat_BS~mx_PR~smart_SB~A54_FS~lo_CA~kew_KS~ba_MT~exact-&ds_ag=AG~Core-

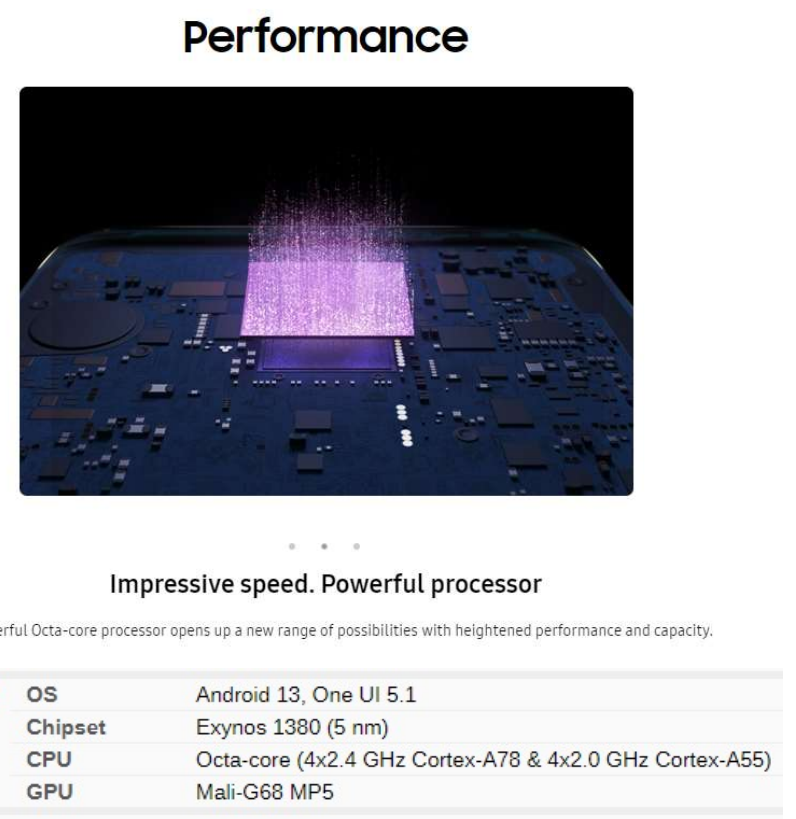
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	RLSA_MK~usnat_AT~ta_MD~h_PK~roah_PB~google_AI~yes_TG~rtg_SA~rtgrtgs-&ds_k=samsung+galaxy+A54+5g&gclid=EAIaIQobChMI2ePmmu6x_wIVdBOzAB3CNQgMEAAYASAAEgJt2fD_BwE&gclsrc=aw.ds. Camera Enjoy a full kit of pro lenses and pro-grade video modes and settings. ○ From Apps, tap Camera. TIP Quickly press the Side key twice to open the Camera app. 

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy A54 5G technical specifications; https://downloadcenter.samsung.com/content/UM/202304/20230407022332214/SAM_A546_EN_UM_OS13_040523_FINAL.pdf at 40. Configure shooting mode Allow the camera to determine the ideal mode for your pictures or choose from several shooting modes. ○ From Camera, swipe the screen right and left to change shooting modes. • **Fun**: Change your look and reimagine your world with unique Snapchat Lenses. • **Portrait**: Adjust the background of your shots for portrait photos. • **Photo**: Allow the camera to determine the ideal settings for pictures. • **Video**: Allow the camera to determine the ideal settings for videos. • **More**: Choose other available shooting modes. Tap Add to drag modes into or out of the shooting modes tray at the bottom of the Camera screen. - **Pro**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while taking pictures. - **Macro**: Capture close-up images of objects from 3-5 cm away. - **Pro video**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while recording videos.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	- **Single take**: Capture multiple pictures and video clips from different angles. - **Panorama**: Create a linear image by taking pictures in either a horizontal or vertical direction. - **Night**: Use this to take photos in low-light conditions, without using the flash. - **Food**: Take pictures that emphasize the vivid colors of food. - **Super slow-mo**: Record videos at an extremely high frame rate for viewing in high quality slow motion. You can play a specific section of each video in slow motion after recording it. - **Slow motion**: Record videos at a high frame rate for viewing in slow motion. - **Hyperlapse**: Create a time lapse video by recording at various frame rates. The frame rate is adjusted depending on the scene being recorded and the movement of the device. *Id.* at 40–41. *See also* Appendix 8 showing that the remaining Accused Samsung '757 Products are image recording device configured to execute a plurality of different photographing processes. Specifically, the remaining Accused Samsung '757 Products, including Galaxy smartphones and Galaxy tablets are image recording devices that have a plurality of front and rear facing cameras for executing a plurality of different photographing processes, such as, *e.g.*, still-images.
[11.a] photographing an object and acquiring an image signal by a first camera or a second camera, the first camera being arranged on the same face side of a touch display and configured to acquire a first image signal, the second camera being arranged on an opposite side of the	Each of the Accused Samsung '757 Products includes photographing an object and acquiring an image signal by a first camera or a second camera, the first camera being arranged on the same face side of a touch display and configured to acquire a first image signal, the second camera being arranged on an opposite side of the touch display and configured to acquire a second image signal. *See e.g.*, Technical Specifications of each of the Accused Samsung '757 Products available at Samsung's website showing that each of the devices include photographing an object and acquiring an image signal by a first camera or a second camera, the first camera being arranged on the same face side of a touch display and configured to acquire a first image signal, the second camera being arranged on an opposite side of the touch display and configured to acquire a second image signal (https://www.samsung.com/us/mobile/ and https://www.samsung.com/us/tablets/).

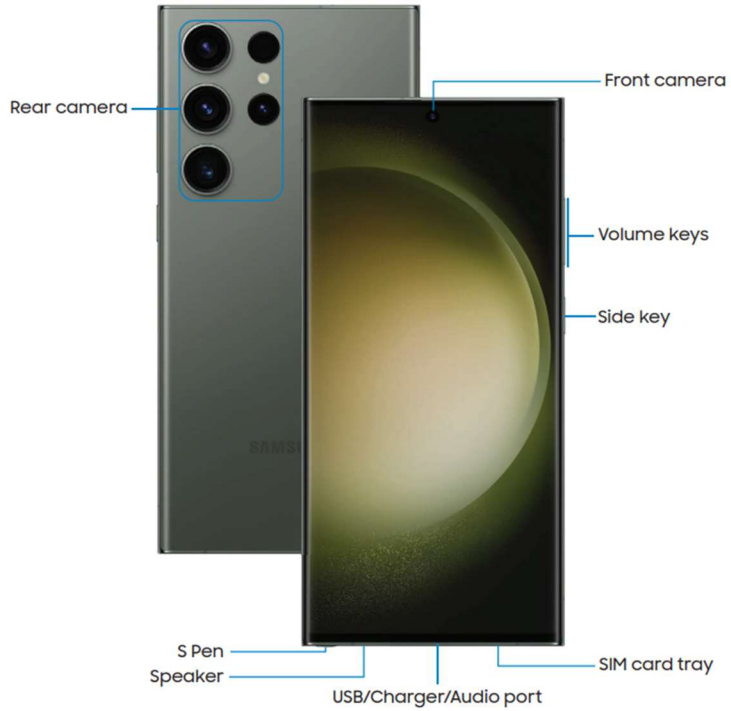
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
touch display and configured to acquire a second image signal;	As a non-limiting example of photographing an object, each of the Accused Samsung '757 Products is a smartphone and/or tablet with one or more processors (chipset) capable of acquiring an image signal by a first camera or a second camera, the first camera being arranged on the same face side of a touch display and configured to acquire a first image signal, the second camera being arranged on an opposite side of the touch display and configured to acquire a second image signal. For example, the Accused Samsung '757 Products include one or more processors (chipset) that are capable of acquiring a first still-image signal from a front facing camera or a second still-image from a rear facing camera where the front facing camera is one or more cameras located on the same face side as a touch display, and the rear facing camera is one or more cameras located on the opposite face side as the touch display:  PLATFORM OS: Android 13, One UI 5.1 Chipset: Qualcomm SM8550-AC Snapdragon 8 Gen 2 (4 nm) CPU: Octa-core (1x3.36 GHz Cortex-X3 & 2x2.8 GHz Cortex-A715 & 2x2.8 GHz Cortex-A710 & 3x2.0 GHz Cortex-A510) GPU: Adreno 740 Galaxy S23 Ultra technical specifications; https://www.samsung.com/us/smartphones/galaxy-s23-ultra/buy/galaxy-s23-ultra-512gb-verizon-sm-s918uzgfvzw/?modelCode=SM-S918UZGFXAU; https://www.gsmarena.com/samsung_galaxy_s23_ultra-12024.php.  PLATFORM OS: Android 12L, upgradable to Android 13, One UI 5.1 Chipset: Qualcomm SM8475 Snapdragon 8+ Gen 1 (4 nm) CPU: Octa-core (1x3.19 GHz Cortex-X2 & 3x2.75 GHz Cortex-A710 & 4x1.80 GHz Cortex-A510) GPU: Adreno 730

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy Z Fold4 technical specifications; https://www.samsung.com/us/smartphones/galaxy-z-fold4/buy/galaxy-z-fold4-512gb-att-sm-f936uzeeatt/; https://www.gsmarena.com/samsung_galaxy_z_fold4-11737.php.  Processor Snapdragon 8+ Gen 1 Up to 3.2GHz PLATFORM OS: Android 12, upgradable to Android 13, One UI 5.1 Chipset: Qualcomm SM8475 Snapdragon 8+ Gen 1 (4 nm) CPU: Octa-core (1x3.19 GHz Cortex-X2 & 3x2.75 GHz Cortex-A710 & 4x1.80 GHz Cortex-A510) GPU: Adreno 730 Galaxy Z Flip4 technical specifications; https://www.samsung.com/us/smartphones/galaxy-z-flip4/buy/galaxy-z-flip4-256gb-t-mobile-sm-f721uzdexau/; https://www.gsmarena.com/samsung_galaxy_z_flip4-11538.php. Processor CPU Type: Octa-Core CPU Speed: 2.4GHz,2GHz

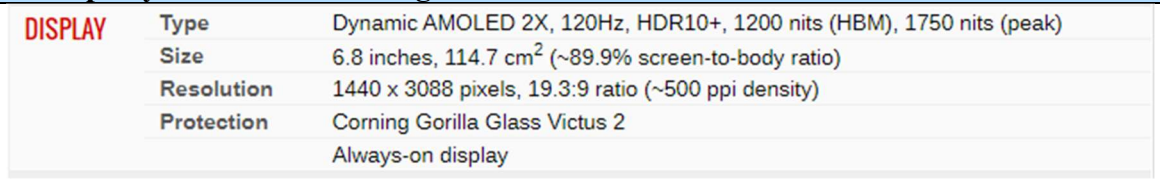
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy A54 5G technical specifications; https://www.samsung.com/us/mobile/phones/galaxy-a/galaxy-a54-5g-128gb-verizon-sm-a546vzkbvzw/; https://www.gsmarena.com/samsung_galaxy_a54-12070.php.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

Galaxy S23 Ultra



MAIN CAMERA	Quad	200 MP, f/1.7, 24mm (wide), 1/1.3", 0.6µm, multi-directional PDAF, Laser AF, OIS
		10 MP, f/4.9, 230mm (periscope telephoto), 1/3.52", 1.12µm, Dual Pixel PDAF, OIS, 10x optical zoom
		10 MP, f/2.4, 70mm (telephoto), 1/3.52", 1.12µm, Dual Pixel PDAF, OIS, 3x optical zoom
		12 MP, f/2.2, 13mm, 120˚ (ultrawide), 1/2.55", 1.4µm, Dual Pixel PDAF, Super Steady video
	Features	LED flash, auto-HDR, panorama
	Video	8K@24/30fps, 4K@30/60fps, 1080p@30/60/240fps, 1080p@960fps, HDR10+, stereo sound rec., gyro-EIS
SELFIE CAMERA	Single	12 MP, f/2.2, 26mm (wide), Dual Pixel PDAF
	Features	Dual video call, Auto-HDR, HDR10+
	Video	4K@30/60fps, 1080p@30fps

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy S23 Ultra technical specifications; https://downloadcenter.samsung.com/content/UM/202302/20230228053129621/SAM_S911_S916_S918_EN_UM_OS13_020223_FINAL_AC_022023.pdf at 5; https://www.gsmarena.com/samsung_galaxy_s23_ultra-12024.php.

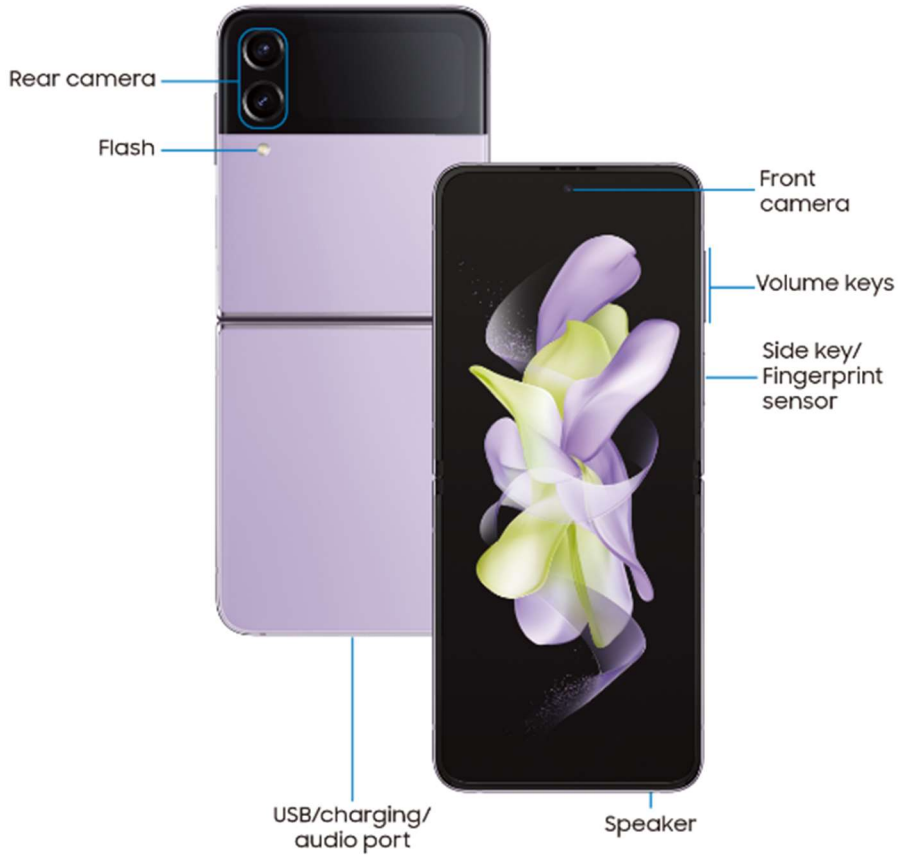
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

MAIN CAMERA	Triple	50 MP, f/1.8, 23mm (wide), 1.0µm, Dual Pixel PDAF, OIS
		10 MP, f/2.4, 66mm (telephoto), 1.0µm, PDAF, OIS, 3x optical zoom
		12 MP, f/2.2, 123˚, 12mm (ultrawide), 1.12µm
	Features	LED flash, HDR, panorama
	Video	8K@24fps, 4K@60fps, 1080p@60/240fps (gyro-EIS), 720p@960fps (gyro-EIS), HDR10+
SELFIE CAMERA	Single	4 MP, f/1.8, 26mm (wide), 2.0µm, under display
		Cover camera:
		10 MP, f/2.2, 24mm (wide), 1/3", 1.22µm
	Features	HDR
	Video	4K@30/60fps, 1080p@30/60fps, gyro-EIS

DISPLAY	Type	Foldable Dynamic AMOLED 2X, 120Hz, HDR10+, 1200 nits (peak)
	Size	7.6 inches, 183.2 cm^2 (~90.9% screen-to-body ratio)
	Resolution	1812 x 2176 pixels (~373 ppi density)
		Cover display:
		Dynamic AMOLED 2X, 120Hz, Corning Gorilla Glass Victus+
		6.2 inches, 904 x 2316 pixels, 23.1:9 ratio

Galaxy Z Fold4 technical specification; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/galaxy_z_fold4_d1e605.html; https://www.gsmarena.com/samsung_galaxy_z_fold4-11737.php.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy Z Flip4 

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

MAIN CAMERA	Dual	12 MP, f/1.8, 24mm (wide), 1/1.76", 1.8µm, Dual Pixel PDAF, OIS
		12 MP, f/2.2, 123° (ultrawide), 1.12µm
	Features	LED flash, HDR, panorama
	Video	4K@30/60fps, 1080p@60/240fps, 720p@960fps, HDR10+
SELFIE CAMERA	Single	10 MP, f/2.4, 26mm (wide), 1.22µm
	Features	HDR
	Video	4K@30fps

DISPLAY	Type	Foldable Dynamic AMOLED 2X, 120Hz, HDR10+, 1200 nits (peak)
	Size	6.7 inches, 101.5 cm^2 (~85.4% screen-to-body ratio)
	Resolution	1080 x 2640 pixels (~426 ppi density)
		Cover display:
		Super AMOLED, 1.9 inches, 260 x 512 pixels (Gorilla Glass Victus+)

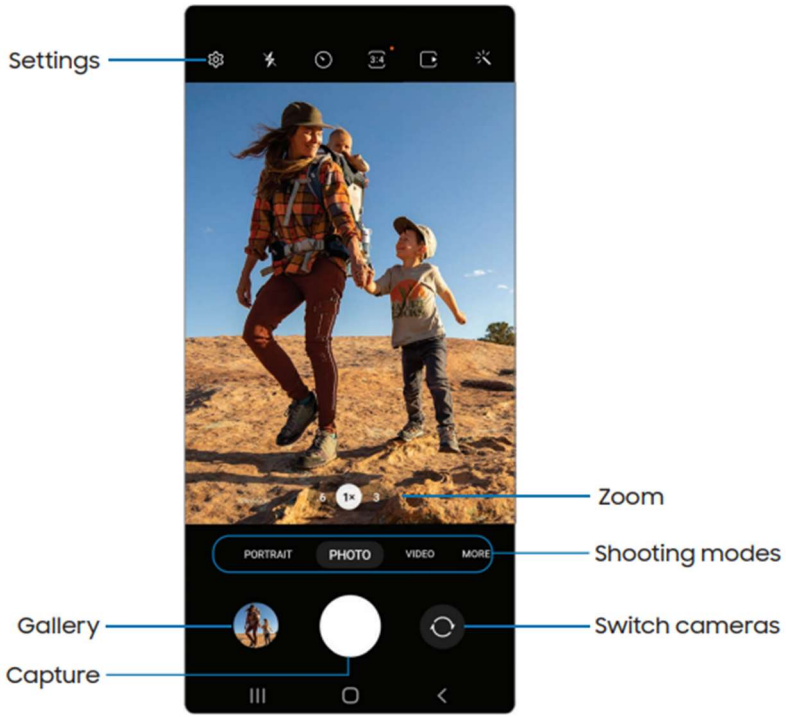
Galaxy Z Flip4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/galaxy_z_flip4_d1e661.html; https://www.gsmarena.com/samsung_galaxy_z_flip4-11538.php.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy A54 5G 

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

MAIN CAMERA	Triple	50 MP, f/1.8, (wide), 1/1.56", 1.0µm, PDAF, OIS
		12 MP, f/2.2, 123° (ultrawide), 1.12µm
		5 MP, f/2.4, (macro)
	Features	LED flash, panorama, HDR
	Video	4K@30fps, 1080p@30/60fps, 720p@480fps
SELFIE CAMERA	Single	32 MP, f/2.2, 26mm (wide), 1/2.8", 0.8µm
	Video	4K@30fps, 1080p@30/60fps
DISPLAY	Type	Super AMOLED, 120Hz, HDR10+, 1000 nits (HBM)
	Size	6.4 inches, 100.5 cm^2 (~82.9% screen-to-body ratio)
	Resolution	1080 x 2340 pixels, 19.5:9 ratio (~403 ppi density)
	Protection	Corning Gorilla Glass 5

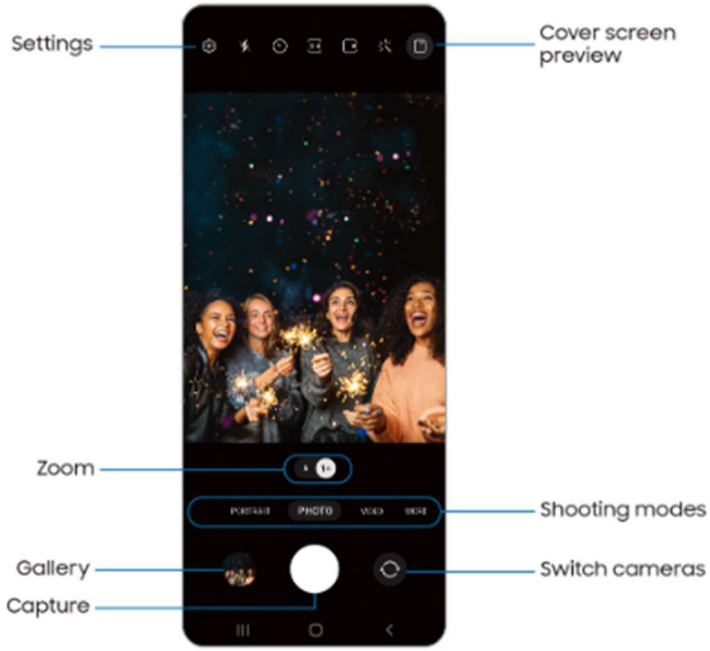
Galaxy A54 5G technical specifications; https://downloadcenter.samsung.com/content/UM/202304/20230407022332214/SAM_A546_EN_UM_OS13_040523_FINAL.pdf at 5; https://www.gsmarena.com/samsung_galaxy_a54-12070.php.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Camera Enjoy a full kit of pro lenses and pro-grade video modes and settings. ○ From Apps, tap Camera. TIP Quickly press the Side key twice to open the Camera app.  Galaxy S23 Ultra technical specification; https://downloadcenter.samsung.com/content/UM/202302/20230228053129621/SAM_S911_S916_S918_EN_UM_OS13_020223_FINAL_AC_022023.pdf at 58.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Configure shooting mode Allow the camera to determine the ideal mode for your pictures or choose from several shooting modes. ○ From Camera, swipe the screen right and left to change shooting modes. • **Portrait**: Adjust the background of your shots for portrait photos. • **Photo**: Allow the camera to determine the ideal settings for pictures. • **Video**: Allow the camera to determine the ideal settings for videos. • **More**: Choose other available shooting modes. Tap ⊕ **Add** to drag modes into or out of the shooting modes tray at the bottom of the Camera screen. - **Expert RAW**: Download the Expert RAW shooting mode. - **Pro**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while taking pictures. - **Pro video**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while recording videos. - **Single take**: Capture multiple pictures and video clips from different angles. - **Panorama**: Create a linear image by taking pictures in either a horizontal or vertical direction. - **Night**: Use this to take photos in low-light conditions, without using the flash. - **Food**: Take pictures that emphasize the vivid colors of food. - **Super slow-mo**: Record videos at an extremely high frame rate for viewing in high quality slow motion. You can play a specific section of each video in slow motion after recording it. - **Slow motion**: Record videos at a high frame rate for viewing in slow motion. - **Hyperlapse**: Create a time lapse video by recording at various frame rates. The frame rate is adjusted depending on the scene being recorded and the movement of the device. - **Portrait video**: Adjust the background of your shots for portrait videos. - **Director's view**: Access advanced features such as lock onto a subject in view, change between different rear camera lenses, and more. *Id.* at 59–60.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy Z Fold4 Camera features  **Capture and view** View the pictures and videos you capture while still using your camera. Images will be shown on the side panel until the Camera app is closed. This feature is only available when the device is open. ○ From Camera, tap Capture View. Galaxy Z Fold4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/galaxy_z_fold4_camera_features_d1e3185.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Configure shooting mode Allow the camera to determine the ideal mode for your pictures or choose from several shooting modes. ◦ From **Camera**, swipe the screen right and left to change shooting modes. • **Portrait**: Adjust the background of your shots for portrait photos. • **Photo**: Allow the camera to determine the ideal settings for pictures. • **Video**: Allow the camera to determine the ideal settings for videos. • **More**: Choose other available shooting modes. Tap **Add** to drag modes into or out of the shooting modes tray at the bottom of the Camera screen. - **Pro**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while taking pictures. - **Pro video**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while recording videos. - **Single take**: Capture multiple pictures and video clips from different angles. - **Panorama**: Create a linear image by taking pictures in either a horizontal or vertical direction. - **Night**: Use this to take photos in low-light conditions, without using the flash. - **Food**: Take pictures that emphasize the vivid colors of food. - **Super slow-mo**: Record videos at an extremely high frame rate for viewing in high quality slow motion. You can play a specific section of each video in slow motion after recording it. - **Slow motion**: Record videos at a high frame rate for viewing in slow motion. - **Hyperlapse**: Create a time lapse video by recording at various frame rates. The frame rate is adjusted depending on the scene being recorded and the movement of the device. - **Portrait video**: Adjust the background of your shots for portrait videos. - **Director's view**: Access advanced features such as lock onto a subject in view, change between different rear camera lenses, and more. Galaxy Z Fold4 technical specification; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/configure_shooting_mode_d1e3233.html.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy Z Flip4 Camera features  **Selfies in Flex mode** Use your camera in Flex mode for hands-free selfies. 1. Place your phone on a flat surface in table top view. 2. From **Camera**, tap **Portrait**. 3. Tap or to move the camera preview to the top or bottom half of the screen. Galaxy Z Flip4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/galaxy_z_flip4_camera_features_d1e3206.html.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

Configure shooting mode

Allow the camera to determine the ideal mode for your pictures or choose from several shooting modes.

- From **Camera**, swipe the screen right and left to change shooting modes.
  - **Portrait**: Adjust the background of your shots for portrait photos.
  - **Photo**: Allow the camera to determine the ideal settings for pictures.
  - **Video**: Allow the camera to determine the ideal settings for videos.
  - **More**: Choose other available shooting modes. Tap **Add** to drag modes into or out of the shooting modes tray at the bottom of the Camera screen.
    - **Pro**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while taking pictures.
    - **Pro video**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while recording videos.
    - **Single take**: Capture multiple pictures and video clips from different angles.
    - **Panorama**: Create a linear image by taking pictures in either a horizontal or vertical direction.
    - **Night**: Use this to take photos in low-light conditions, without using the flash.
    - **Food**: Take pictures that emphasize the vivid colors of food.
    - **Super slow-mo**: Record videos at an extremely high frame rate for viewing in high quality slow motion. You can play a specific section of each video in slow motion after recording it.
    - **Slow motion**: Record videos at a high frame rate for viewing in slow motion.
    - **Hyperlapse**: Create a time lapse video by recording at various frame rates. The frame rate is adjusted depending on the scene being recorded and the movement of the device.
    - **Portrait video**: Adjust the background of your shots for portrait videos.
    - **Director's view**: Access advanced features such as lock onto a subject in view, change between different rear camera lenses, and more.

Galaxy Z Flip4 technical specification; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/configure_shooting_mode_d1e3233.html.

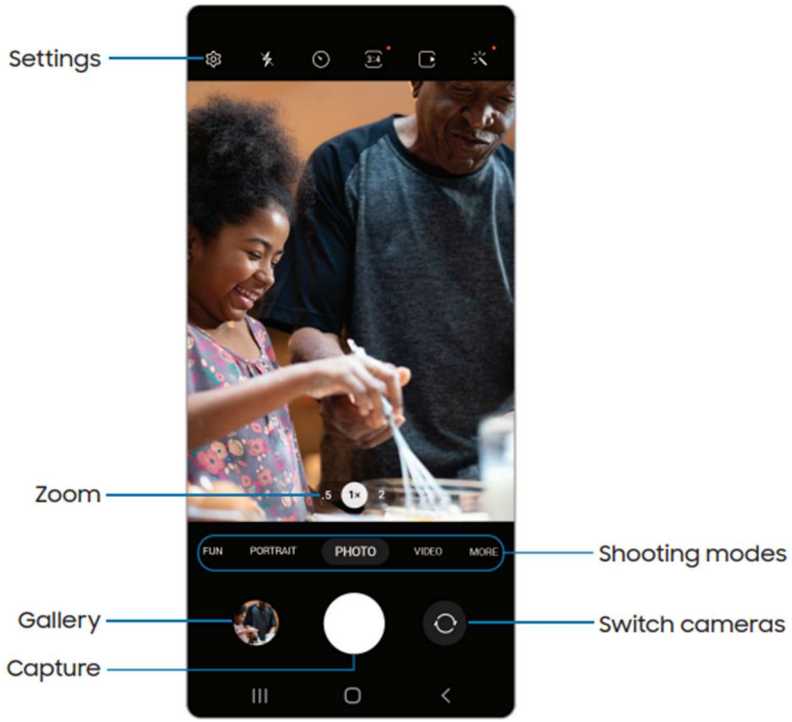
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

Camera

Enjoy a full kit of pro lenses and pro-grade video modes and settings.

From Apps, tap Camera.

TIP Quickly press the Side key twice to open the Camera app.



Galaxy A54 5G technical specifications; https://downloadcenter.samsung.com/content/UM/202304/20230407022332214/SAM_A546_EN_UM_OS13_040523_FINAL.pdf at 40.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

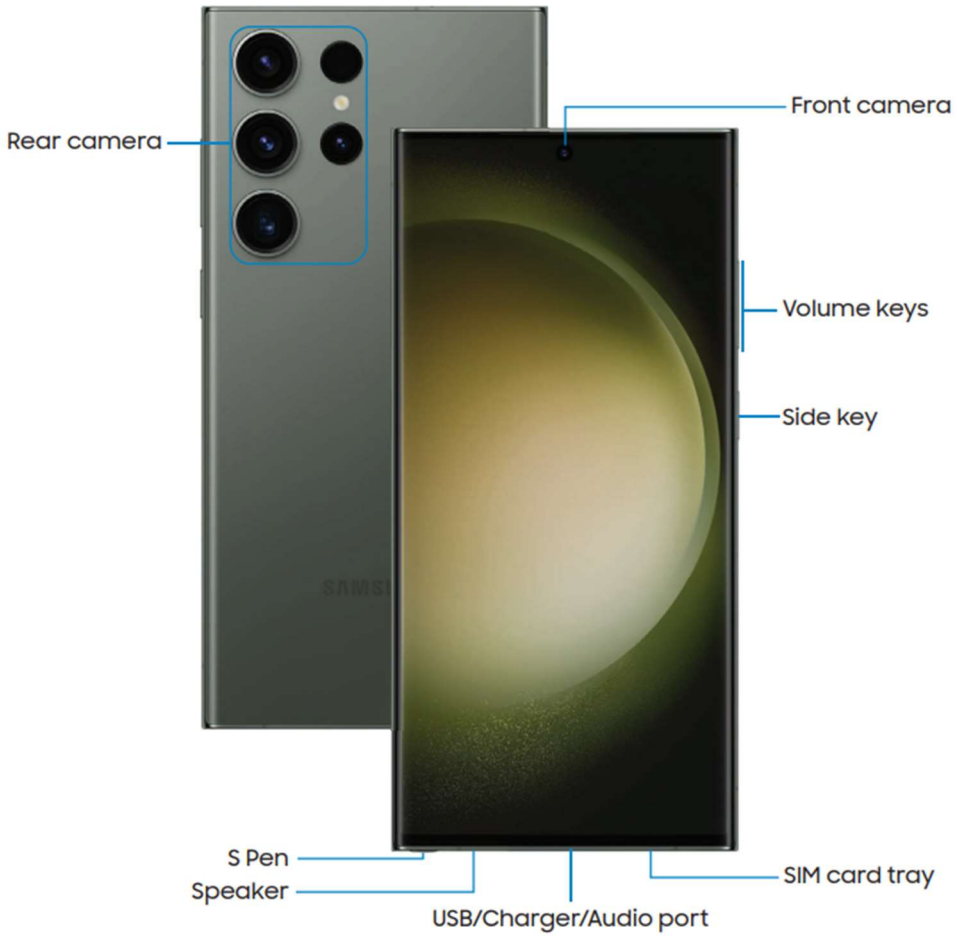
Configure shooting mode

Allow the camera to determine the ideal mode for your pictures or choose from several shooting modes.

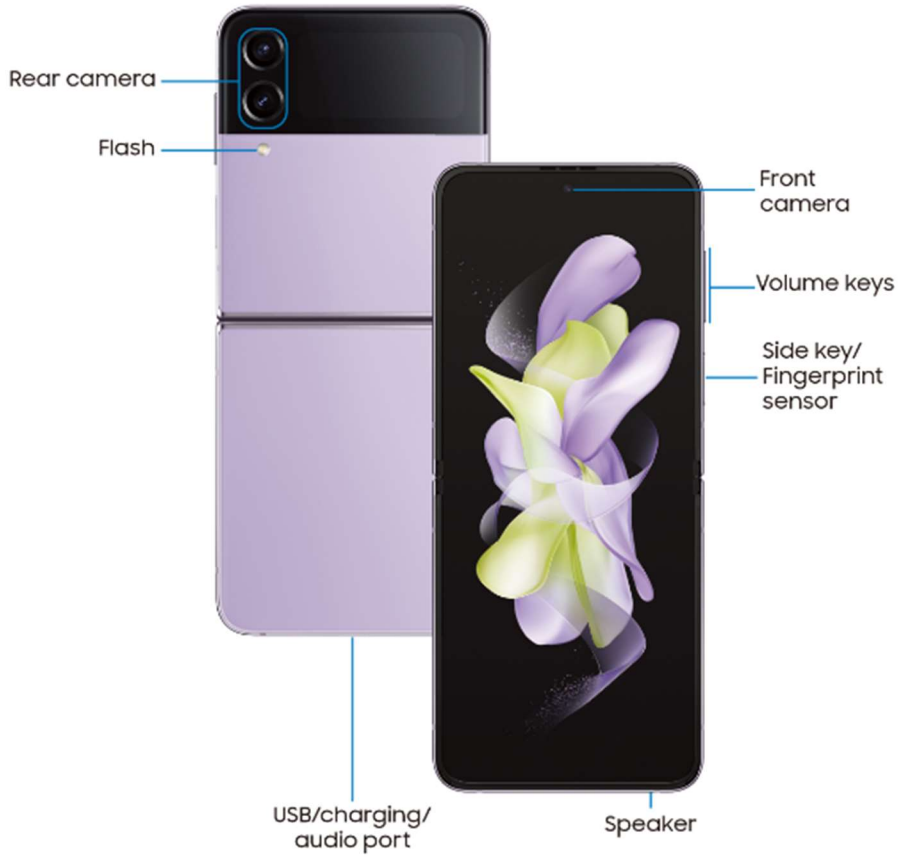
- From **Camera**, swipe the screen right and left to change shooting modes.
  - **Fun**: Change your look and reimagine your world with unique Snapchat Lenses.
  - **Portrait**: Adjust the background of your shots for portrait photos.
  - **Photo**: Allow the camera to determine the ideal settings for pictures.
  - **Video**: Allow the camera to determine the ideal settings for videos.
  - **More**: Choose other available shooting modes. Tap **Add** to drag modes into or out of the shooting modes tray at the bottom of the Camera screen.
    - **Pro**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while taking pictures.
    - **Macro**: Capture close-up images of objects from 3-5 cm away.
    - **Pro video**: Manually adjust the ISO sensitivity, exposure value, white balance, and color tone while recording videos.
    - **Single take**: Capture multiple pictures and video clips from different angles.
    - **Panorama**: Create a linear image by taking pictures in either a horizontal or vertical direction.
    - **Night**: Use this to take photos in low-light conditions, without using the flash.
    - **Food**: Take pictures that emphasize the vivid colors of food.
    - **Super slow-mo**: Record videos at an extremely high frame rate for viewing in high quality slow motion. You can play a specific section of each video in slow motion after recording it.
    - **Slow motion**: Record videos at a high frame rate for viewing in slow motion.
    - **Hyperlapse**: Create a time lapse video by recording at various frame rates. The frame rate is adjusted depending on the scene being recorded and the movement of the device.

Id. at 40–41.

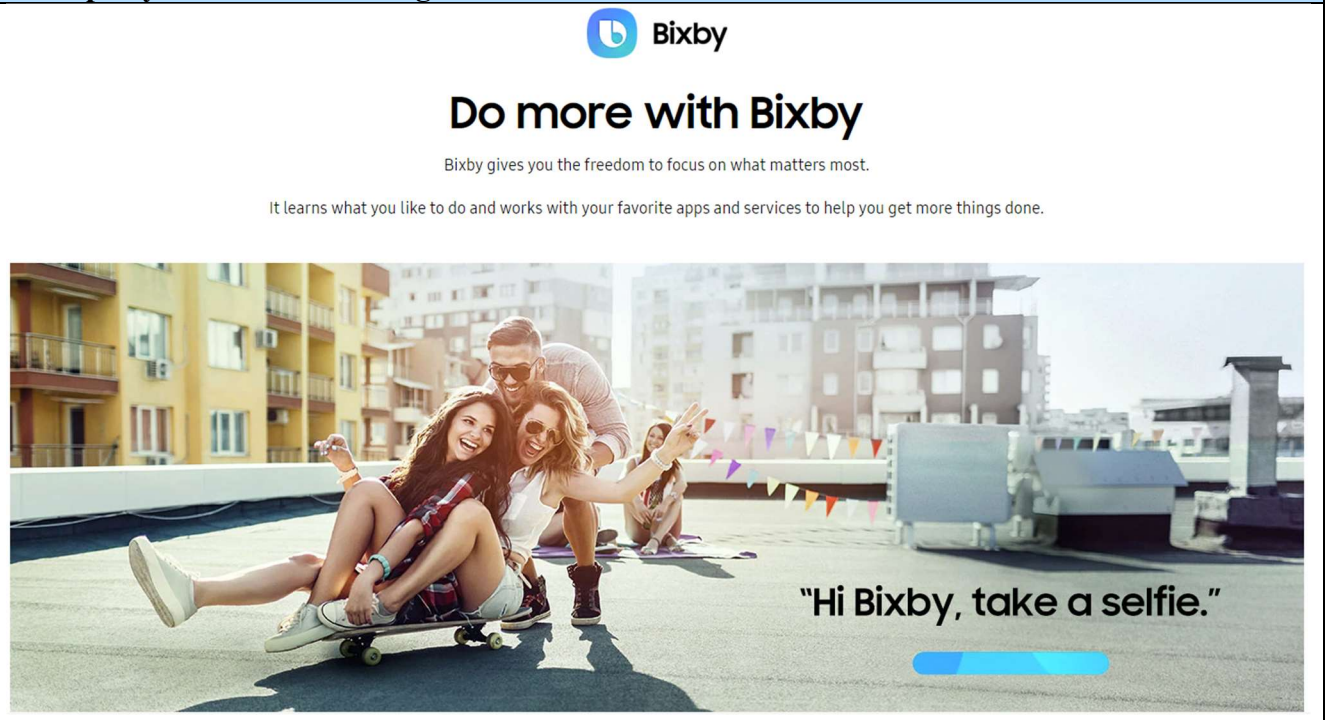
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	See also Appendix 8 showing that the remaining Accused Samsung '757 Products include one or more processors (chipset), a first camera for acquiring a first image signal, and a second camera for acquiring a second image signal for photographing an object. For example, the Accused Samsung '757 Products include a touch display screen and one or more processors (chipset) that are capable of acquiring a first still-image signal from a front facing camera or a second still-image from a rear facing camera. *See* https://www.samsung.com/us/support/answer/ANS00089063/.
[11.b] in a case that the first camera is used for photographing: receiving a command voice from an audio input interface;	Each of the Accused Samsung '757 Products includes a case that the first camera is used for photographing: receiving a command voice from an audio input interface. *See e.g.*, Technical Specifications of each of the Accused Samsung '757 Products available at Samsung's website showing that each of the devices include a case that the first camera is used for photographing: receiving a command voice from an audio input interface (https://www.samsung.com/us/mobile/ and https://www.samsung.com/us/tablets/). As a non-limiting example of an audio input interface, each of the Accused Samsung '757 Products is a smartphone and/or tablet having one or more microphones as audio ports for receiving a command voice for Bixby to photograph an object with the front facing camera:

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy S23 Ultra  Galaxy S23 Ultra technical specifications; https://downloadcenter.samsung.com/content/UM/202302/20230228053129621/SAM_S911_S916_S918_EN_UM_OS13_020223_FINAL_AC_022023.pdf at 5.

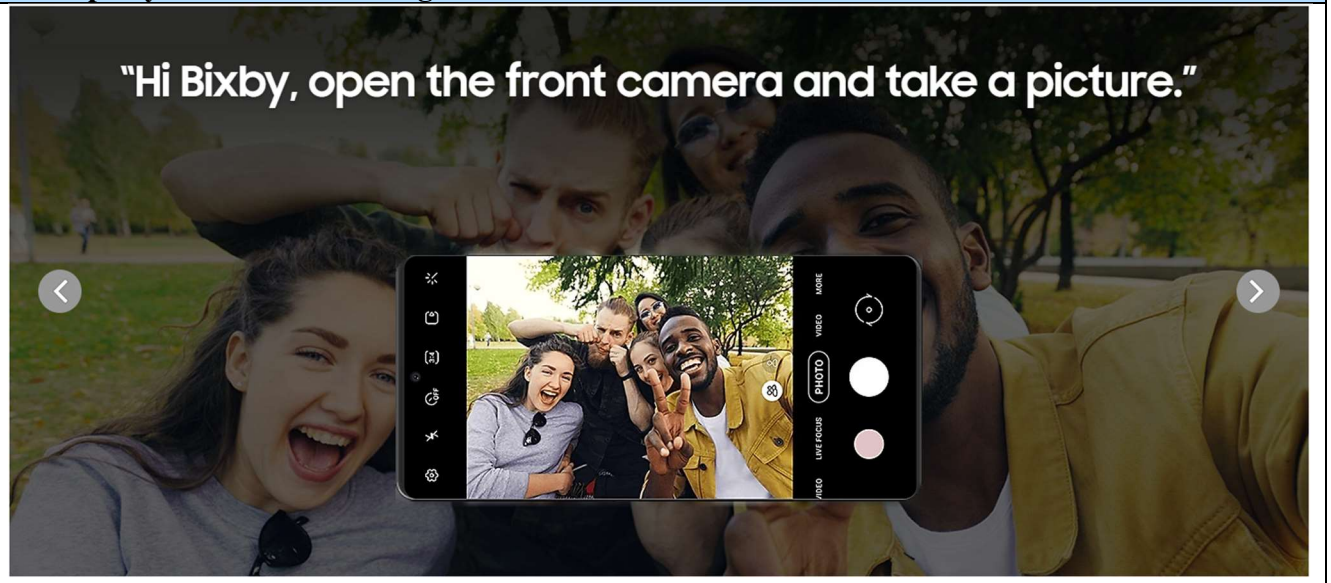
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy Z Fold4  Galaxy Z Fold4 technical specification; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/galaxy_z_fold4_d1e605.html.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy Z Flip4  Galaxy Z Flip4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/galaxy_z_flip4_d1e661.html.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy A54 5G  Galaxy A54 5G technical specifications; https://downloadcenter.samsung.com/content/UM/202304/20230407022332214/SAM_A546_EN_UM_OS13_040523_FINAL.pdf at 5.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 https://www.samsung.com/us/apps/bixby/

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement



Id.

FEATURES	Sensors	Fingerprint (under display, ultrasonic), accelerometer, gyro, proximity, compass, barometer
		Samsung DeX, Samsung Wireless DeX (desktop experience support)
		Bixby natural language commands and dictation
		Samsung Pay (Visa, MasterCard certified)
		Ultra Wideband (UWB) support

Galaxy S23 Ultra technical specifications; https://www.gsmarena.com/samsung_galaxy_s23_ultra-12024.php.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

Hearing enhancements

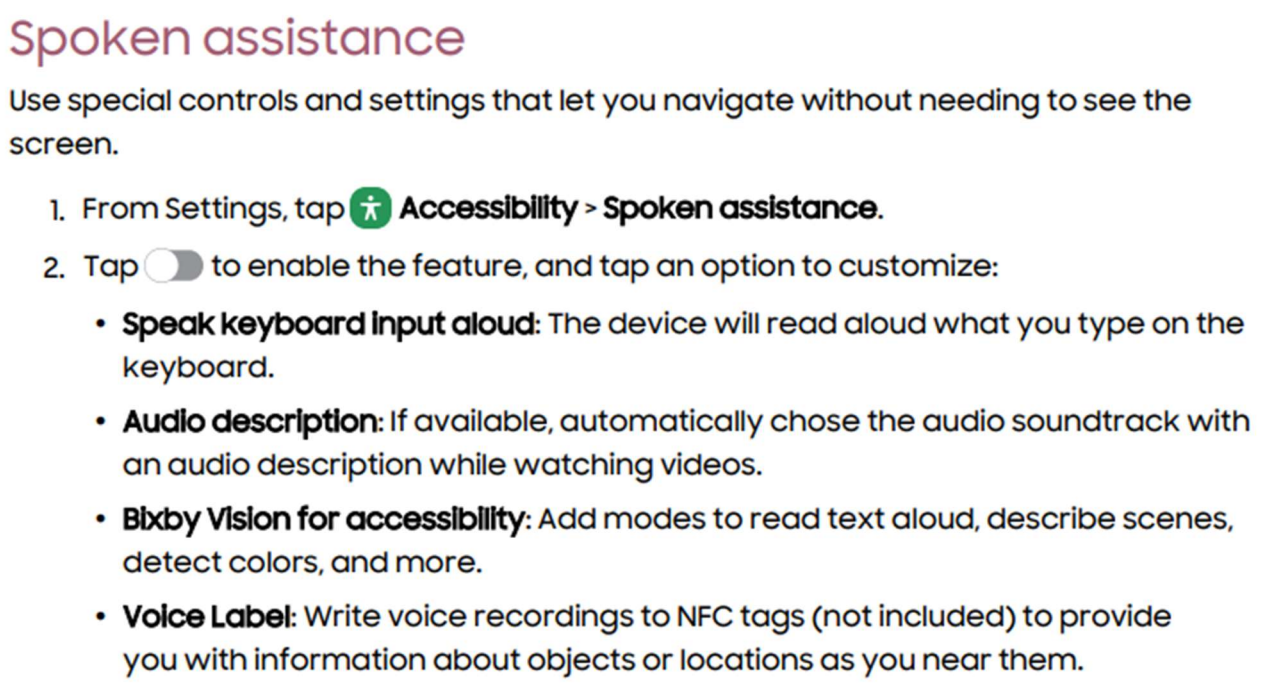
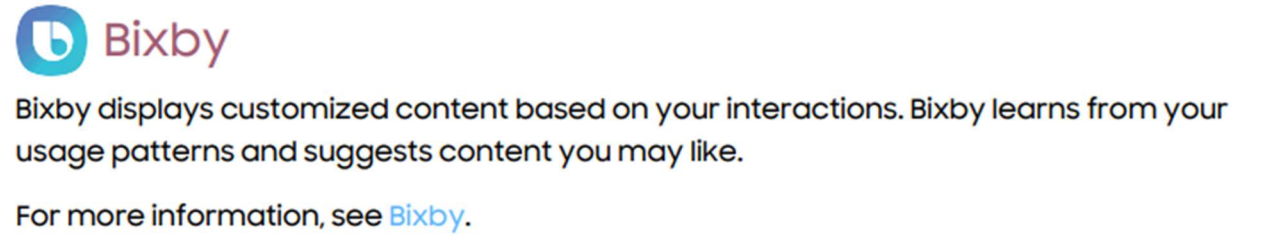
You can configure settings to help you interact with your device's sounds, including captioning, sound balance, and hearing aid support.

The devices covered by this User manual are hearing aid compatible, and have these Hearing Aid Compatibility (HAC) rating(s):

Device	HAC Rating
Glaxay S23 Ultra	M3/T3 (2011)
Galaxy S23+	M3/T3 (2011)
Galaxy S23	M3/T3 (2011)

- From Settings, tap **Accessibility** > **Hearing enhancements** and tap an option:
  - **Real time text**: Activate real-time text (RTT) calling.
  - **Live Transcribe**: Use the microphone to record speech and convert it to text.
  - **Live Caption**: Automatically caption speech in media played on your device.
  - **Caption preference**: Configure closed caption and subtitle services.
  - **Sound notifications**: Receive alerts when the device detects a baby crying or a doorbell.
  - **Hearing aid support**: Improve the sound quality to work better with hearing aids.
  - **Amplify ambient sound**: Enable this feature and connect headphones to your device to amplify the sounds of conversations.
  - **Adapt sound**: Customize the sound for each ear and enhance your listening experience. See Adapt sound.
  - **Mute all sounds**: Turn off all notifications and audio for privacy.
  - **Mono audio**: Switch audio from stereo to mono.
  - **Left/right sound balance**: Use the sliders to adjust the left and right balance for connected audio and device speakers.

Galaxy S23 Ultra technical specifications: https://downloadcenter.samsung.com/content/UM/202302/20230228053129621/SAM_S911_S916_S918_EN_UM_OS13_020223_FINAL_AC_022023.pdf at 169

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 *Id.* at 166.  *Id.* at 74; https://www.samsung.com/us/apps/bixby/; https://www.samsung.com/us/apps/bixby/bixby-user-guide/.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Bixby Bixby is a virtual assistant that learns, evolves, and adapts to you. It learns your routines, helps you set up reminders based on time and location, and is built in to your favorite apps. Visit **samsung.com/us/support/owners/app/Bixby** for more information. ○ From a Home screen, press and hold the **Side** key. **TIP** You can also access Bixby from the Apps list. Bixby Vision Bixby is integrated with your Camera, Gallery, and Internet apps to give you a deeper understanding of what you see. It provides contextual icons for translation, QR code detection, landmark recognition, or shopping. Camera Bixby Vision is available on the Camera viewfinder to help understand what you see. ○ From **Camera**, tap **More** > **Bixby Vision** and follow the prompts. Gallery Bixby Vision can be used on pictures and images saved in the Gallery app. 1. From **Gallery**, tap a picture to view it. 2. Tap **Bixby Vision** and follow the prompts. Internet Bixby Vision can help you find out more about an image you find in the Internet app. 1. From **Internet**, touch and hold an image until a pop-up menu is displayed. 2. Tap **Search with Bixby Vision** and follow the prompts. *Id.* at 41.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

Bixby

Introduction

Bixby is a user interface that helps you use your device more conveniently.

You can talk to Bixby or type text. Bixby will launch a feature you request or show the information you want. Visit www.samsung.com/bixby for more information.

Bixby is only available in some languages, and it may not be available depending on the region.

Starting Bixby

Press and hold the Side key to launch Bixby. The Bixby intro page will appear. After you select the language to use with Bixby, sign in to your Samsung account, and complete the setup by following the on-screen instructions, the Bixby screen will appear.

Using Bixby

While pressing and holding the Side key, say what you want to Bixby. Alternatively, say the wake-up phrase and say what you want.

For example, while pressing and holding the Side key, say "How's the weather today?" The weather information will appear on the screen.

If Bixby asks you a question during a conversation, you can continue to talk to Bixby without pressing the Side key or tapping .

Waking up Bixby using your voice

You can start a conversation with Bixby by saying "Hi, Bixby" or "Bixby". Register your voice so that Bixby will respond to your voice.

1 Open the **Bixby** app and tap → **Voice wake-up**.

2 Tap the switch to turn it on.

3 Select a wake-up phrase you want under **Wake-up phrase**.

4 Tap the **Respond to my voice** switch to turn it on.

5 Follow the on-screen instructions to complete the setup.
Now you can say the wake-up phrase and start a conversation.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

Communicating by typing text

If your voice is not recognized because of noisy environments or if you are in a situation where speaking is difficult, you can communicate with Bixby through text.

Open the **Bixby** app, tap , and then type what you want.

During the communication, Bixby also will answer you through text instead of voice feedback.

Bixby Vision

Introduction

Bixby Vision is a service that provides various features based on image recognition. You can use Bixby Vision to search for information by recognizing objects.

- This feature may not be available or you might not get correct search results depending on the image size, format, or resolution.
- Samsung is not responsible for the product information provided by Bixby Vision.

Launching Bixby Vision

Launch Bixby Vision using one of these methods.

- In the **Camera** app, tap **MORE** on the shooting modes list and tap **BIXBY VISION**.
- In the **Gallery** app, select an image and tap .
- In the **Samsung Internet** app, touch and hold an image and tap **Search with Bixby Vision**.
- If you added the Bixby Vision app icon to the Apps screen, open the **Bixby Vision** app.

Using Bixby Vision

1 Launch Bixby Vision.

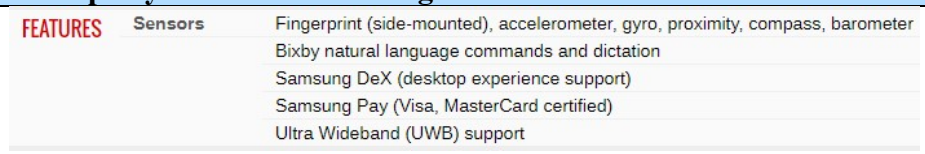
2 Select a feature you want to use.

- **TRANSLATE**: Recognize text from documents or images and translate it.
- **TEXT**: Recognize text from documents or images and extract it.
- **DISCOVER**: Search for images similar to the recognized object online and related information.

The available features and search results may vary depending on the region or carrier.

Galaxy S23 Series User Guide at pg. 88-90.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement



FEATURES	Sensors	Fingerprint (side-mounted), accelerometer, gyro, proximity, compass, barometer
		Bixby natural language commands and dictation
		Samsung DeX (desktop experience support)
		Samsung Pay (Visa, MasterCard certified)
		Ultra Wideband (UWB) support

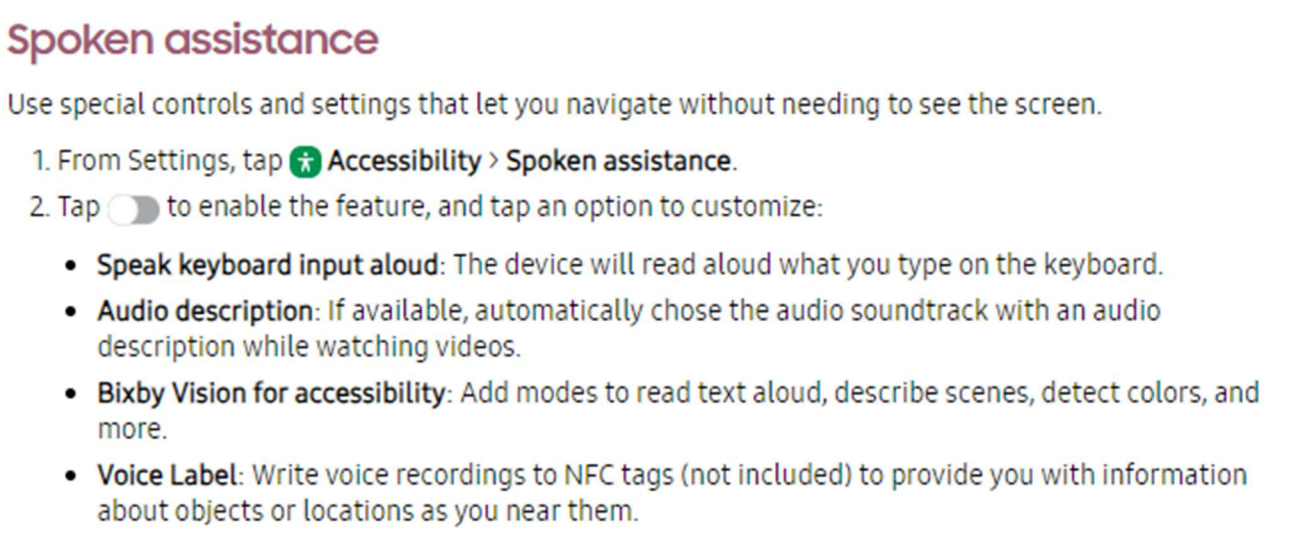
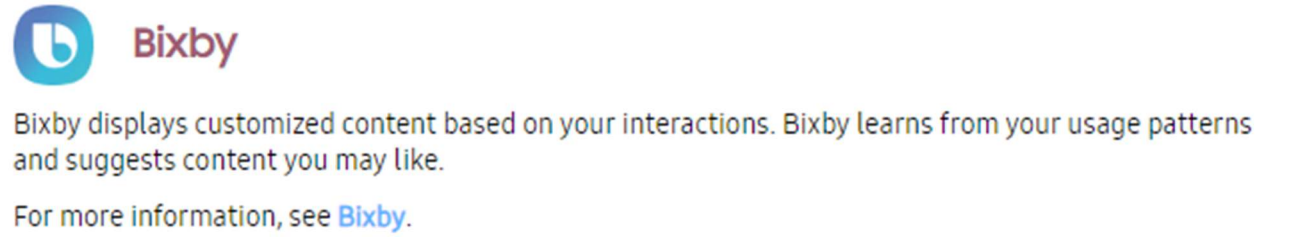
Galaxy Z Fold4 technical specifications; https://www.gsmarena.com/samsung_galaxy_z_fold4-11737.php.

Hearing enhancements

You can configure settings to help you interact with your device's sounds, including captioning, sound balance, and hearing aid support.

- From Settings, tap **Accessibility** > **Hearing enhancements** and tap an option:
  - **Real time text**: Activate real-time text (RTT) calling.
  - **Live Transcribe**: Use the microphone to record speech and convert it to text.
  - **Live Caption**: Automatically caption speech in media played on your device.
  - **Caption preference**: Configure closed caption and subtitle services.
  - Sound notifications: Receive alerts when the device detects a baby crying or a doorbell.
  - **Hearing aid support**: Improve the sound quality to work better with hearing aids.
  - **Amplify ambient sound**: Enable this feature and connect headphones to your device to amplify the sounds of conversations.
  - **Adapt sound**: Customize the sound for each ear and enhance your listening experience. See Adapt sound.
  - **Mute all sounds**: Turn off all notifications and audio for privacy.
  - **Mono audio**: Switch audio from stereo to mono.
  - **Left/right sound balance**: Use the sliders to adjust the left and right balance for connected audio and device speakers.

Galaxy Z Fold4 and Z Flip4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/hearing_enhancements_d1e11918.html.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy Z Fold4 and Z Flip4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/accessibility_d1e11683.html#d1e11766.  Galaxy Z Fold4 and Z Flip4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/samsung_apps_d1e4429.html#d1e4524; https://www.samsung.com/us/apps/bixby/; https://www.samsung.com/us/apps/bixby/bixby-user-guide/.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Bixby Bixby is a virtual assistant that learns, evolves, and adapts to you. It learns your routines, helps you set up reminders based on time and location, and is built in to your favorite apps. Visit **samsung.com/us/support/owners/app/Bixby** for more information. • From a Home screen, press and hold the **Side** key. **TIP** You can also access Bixby from the Apps list. **Bixby Vision** Bixby is integrated with your Camera, Gallery, and Internet apps to give you a deeper understanding of what you see. It provides contextual icons for translation, QR code detection, landmark recognition, or shopping. **Camera** Bixby Vision is available on the Camera viewfinder to help understand what you see. • From **Camera**, tap **More** > **Bixby Vision** and follow the prompts. **Gallery** Bixby Vision can be used on pictures and images saved in the Gallery app. 1. From **Gallery**, tap a picture to view it. 2. Tap **Bixby Vision** and follow the prompts. **Internet** Bixby Vision can help you find out more about an image you find in the Internet app. 1. From **Internet**, touch and hold an image until a pop-up menu is displayed. 2. Tap **Search with Bixby Vision** and follow the prompts. Galaxy Z Fold4 and Z Flip4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/bixby_d1e1993.html#d1e2011.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

Hearing enhancements

You can configure settings to help you interact with your device's sounds, including captioning, sound balance, and hearing aid support.

The devices covered by this User manual are hearing aid compatible, and have these Hearing Aid Compatibility (HAC) rating(s):

Device	FCC ID	HAC Rating
Galaxy A54 5G	A3LSMA546U, A3LSMA546V	M3/T3 (2011)

From Settings, tap **Accessibility** > **Hearing enhancements** and tap an option:

- **Real time text**: Activate real-time text (RTT) calling.
- **Live Transcribe**: Use the microphone to record speech and convert it to text.
- **Live Caption**: Automatically caption speech in media played on your device.
- **Caption preference**: Configure closed caption and subtitle services.
- **Sound notifications**: Receive alerts when the device detects a baby crying or a doorbell.
- **Hearing aid support**: Improve the sound quality to work better with hearing aids.
- **Amplify ambient sound**: Enable this feature and connect headphones to your device to amplify the sounds of conversations.
- **Adapt sound**: Customize the sound for each ear and enhance your listening experience. See Adapt sound.
- **Mute all sounds**: Turn off all notifications and audio for privacy.
- **Mono audio**: Switch audio from stereo to mono.
- **Left/right sound balance**: Use the sliders to adjust the left and right balance for connected audio and device speakers.

Galaxy A54 5G technical specifications; https://downloadcenter.samsung.com/content/UM/202304/20230407022332214/SAM_A546_EN_UM_OS13_040523_FINAL at 152.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

Spoken assistance

Use special controls and settings that let you navigate without needing to see the screen.

1. From Settings, tap **Accessibility** > **Spoken assistance**.
2. Tap to enable the feature, and tap an option to customize:
   - **Speak keyboard input aloud**: The device will read aloud what you type on the keyboard.
   - **Audio description**: If available, automatically chose the audio soundtrack with an audio description while watching videos.
   - **Bixby Vision for accessibility**: Add modes to read text aloud, describe scenes, detect colors, and more.
   - **Voice Label**: Write voice recordings to NFC tags (not included) to provide you with information about objects or locations as you near them.

Id. at 150.

Bixby

Bixby displays customized content based on your interactions. Bixby learns from your usage patterns and suggests content you may like.

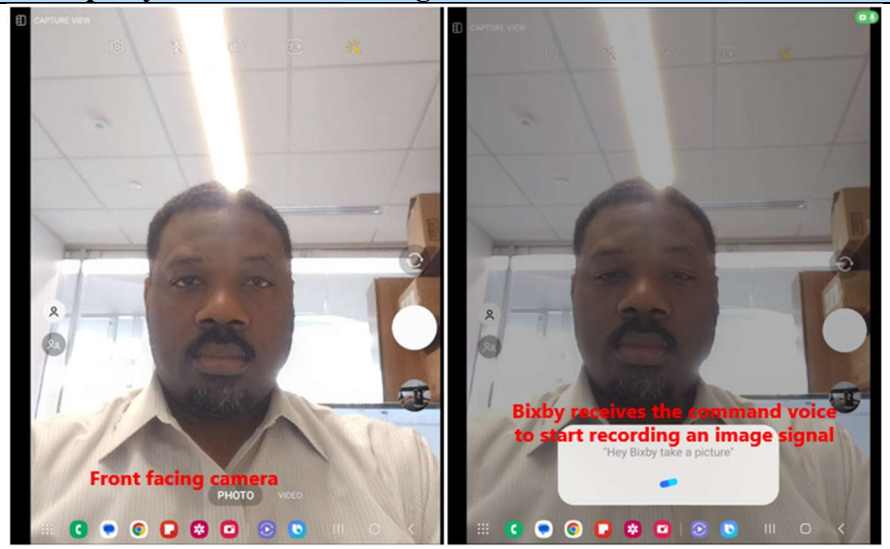
For more information, see Bixby.

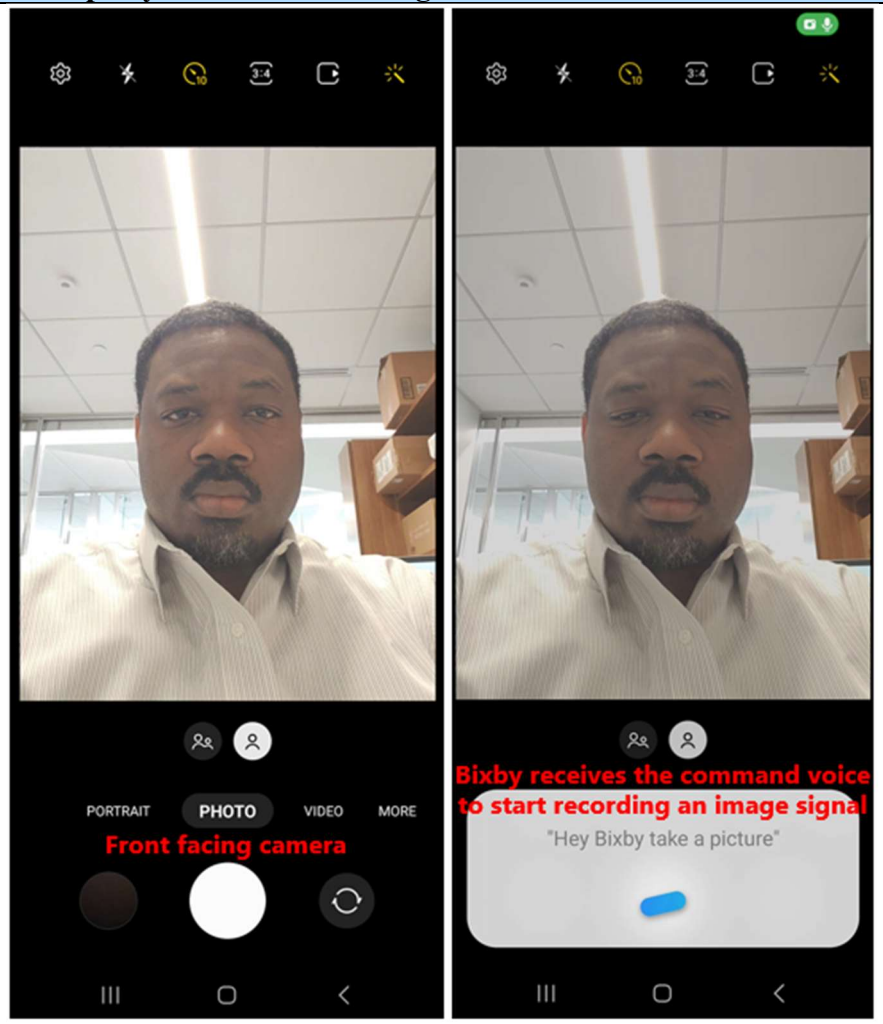
Id. at 55; https://www.samsung.com/us/apps/bixby/; https://www.samsung.com/us/apps/bixby/bixby-user-guide/.

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	Bixby Bixby is a virtual assistant that learns, evolves, and adapts to you. It learns your routines, helps you set up reminders based on time and location, and is built in to your favorite apps. Visit **samsung.com/us/support/owners/app/Bixby** for more information. ○ From a Home screen, press and hold the **Side** key. Bixby Vision Bixby is integrated with your Camera, Gallery, and Internet apps to give you a deeper understanding of what you see. It provides contextual icons for translation, QR code detection, landmark recognition, or shopping. Camera Bixby Vision is available on the Camera viewfinder to help understand what you see. ○ From **Camera**, tap **More** > **Bixby Vision** and follow the prompts. Gallery Bixby Vision can be used on pictures and images saved in the Gallery app. 1. From **Gallery**, tap a picture to view it. 2. Tap **Bixby Vision** and follow the prompts. Internet Bixby Vision can help you find out more about an image you find in the Internet app. 1. From **Internet**, touch and hold an image until a pop-up menu is displayed. 2. Tap **Search with Bixby Vision** and follow the prompts. *Id.* at 24.

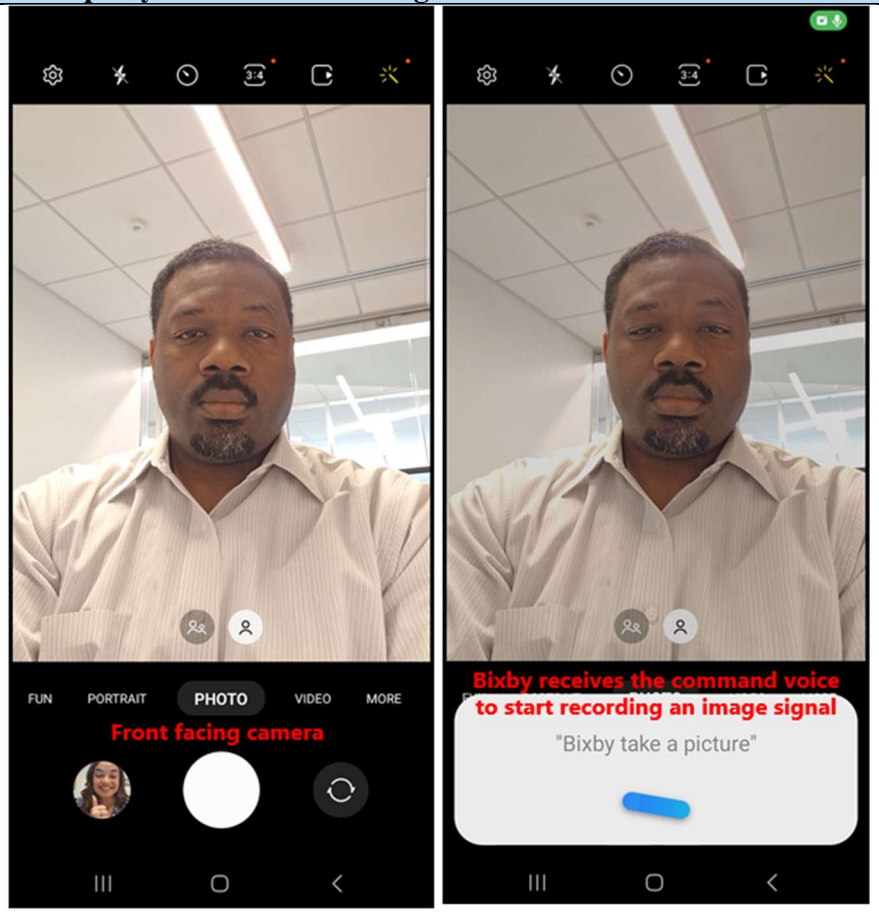
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	See also Appendix 8 showing that the remaining Accused Samsung '757 Products include an audio input interface configured to receive a command voice. Specifically, the remaining Accused Samsung '757 Products, including Galaxy smartphones and Galaxy tablets have one or more microphones or audio ports for receiving command voice to interact with the image recording device or plurality of cameras using Bixby. *See e.g.*, https://www.samsung.com/us/support/answer/ANS00089063/; *see also* https://www.samsung.com/us/apps/bixby/.
[11.c] determining whether or not the command voice includes a first instruction to start a recording of the first image signal;	Each of the Accused Samsung '757 Products includes a case that the first camera is used for photographing: determining whether or not the command voice includes a first instruction to start a recording of the first image signal. *See e.g.*, Technical Specifications of each of the Accused Samsung '757 Products available at Samsung's website showing that each of the devices includes a case that the first camera is used for photographing: determining whether or not the command voice includes a first instruction to start a recording of the first image signal (https://www.samsung.com/us/mobile/ and https://www.samsung.com/us/tablets/). As a non-limiting example of determining whether or not the command voice includes a first instruction, each of the Accused Samsung '757 Products is a smartphone and/or tablet having one or more processors (chipset), as a controller, to determine whether or not the audio input interface receives the command voice giving a first instruction to start a recording of a first image signal. For example, the Accused Samsung '757 Products' one or more processors (chipset) control such that the front facing camera records an image signal upon user giving a first instruction being a command voice to the audio port for Bixby to start the recording process for a still-image. The following exemplary annotated screenshots show the implementation of determining whether or not the audio input interface receives the first instruction being a command voice to Bixby to start a recording of a first image signal (still-image) from the front facing camera:

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy S23 Ultra annotated figures.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy Z Fold4 annotated figures.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy Z Flip4 annotated figures.

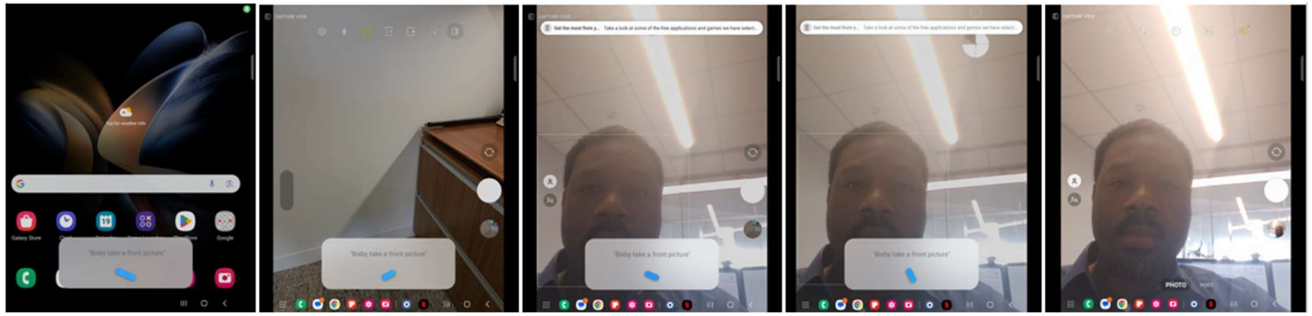
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

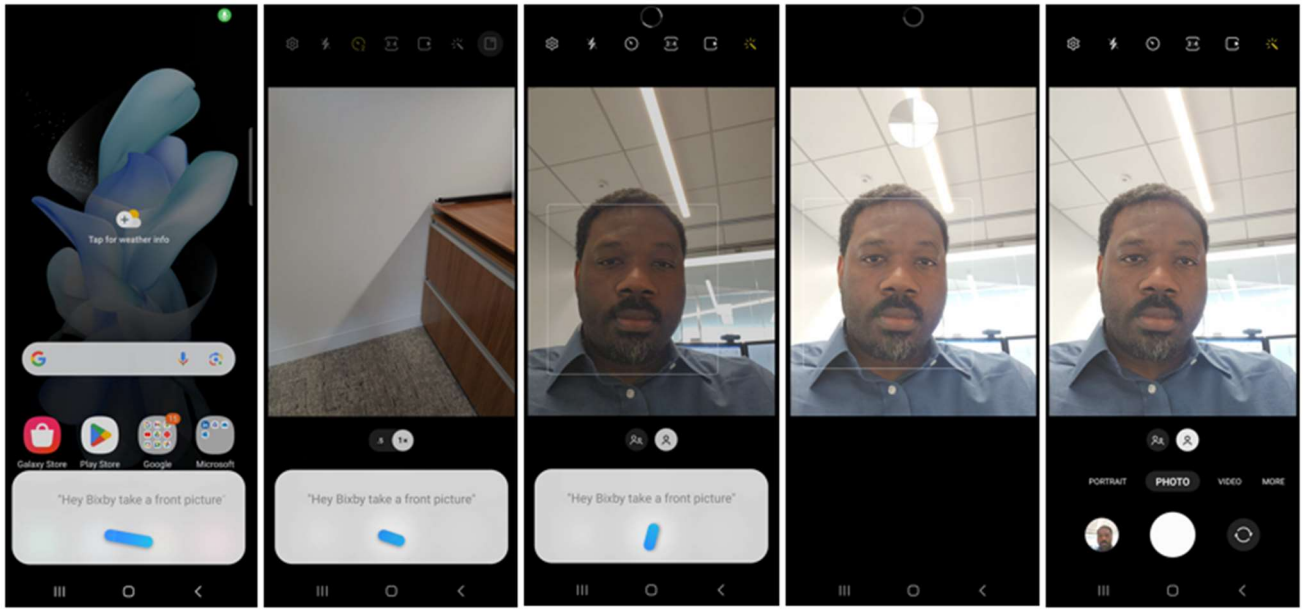


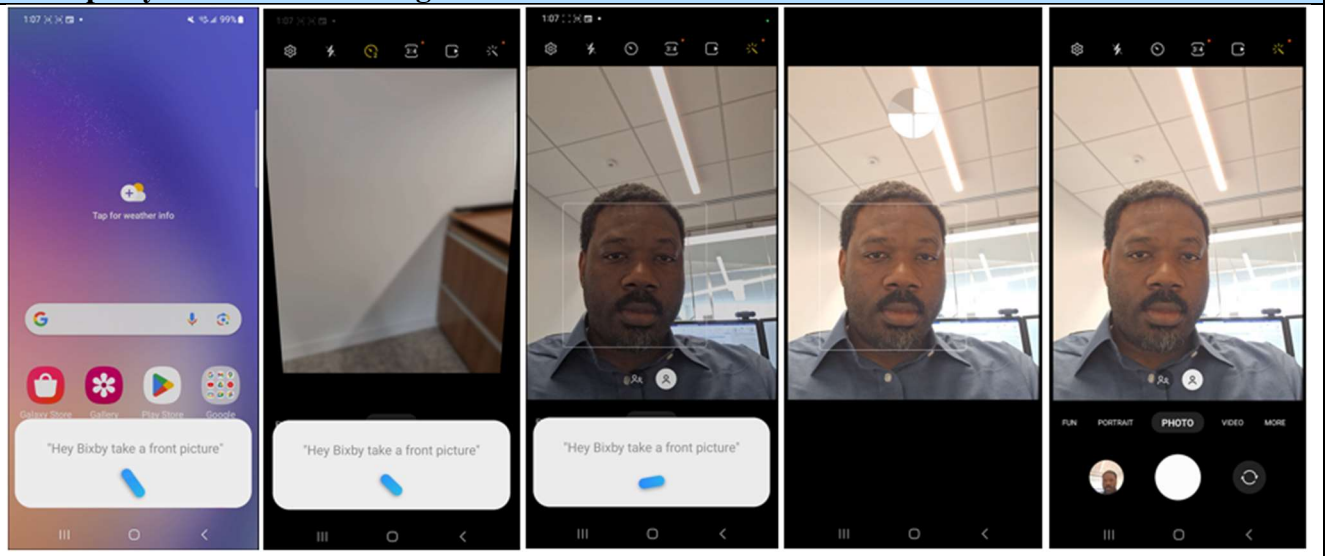
Galaxy A54 5G annotated figures.

See also Appendix 8 showing that the remaining Accused Samsung '757 Products' one or more processors (chipset) determines whether or not the audio input interface receives the command voice giving a first instruction to start a recording of an image signal. For example, the Accused Samsung '757 Products include one or more processors (chipset), Bixby, an audio input interface, and a front facing camera for taking still-images. *See e.g.*,

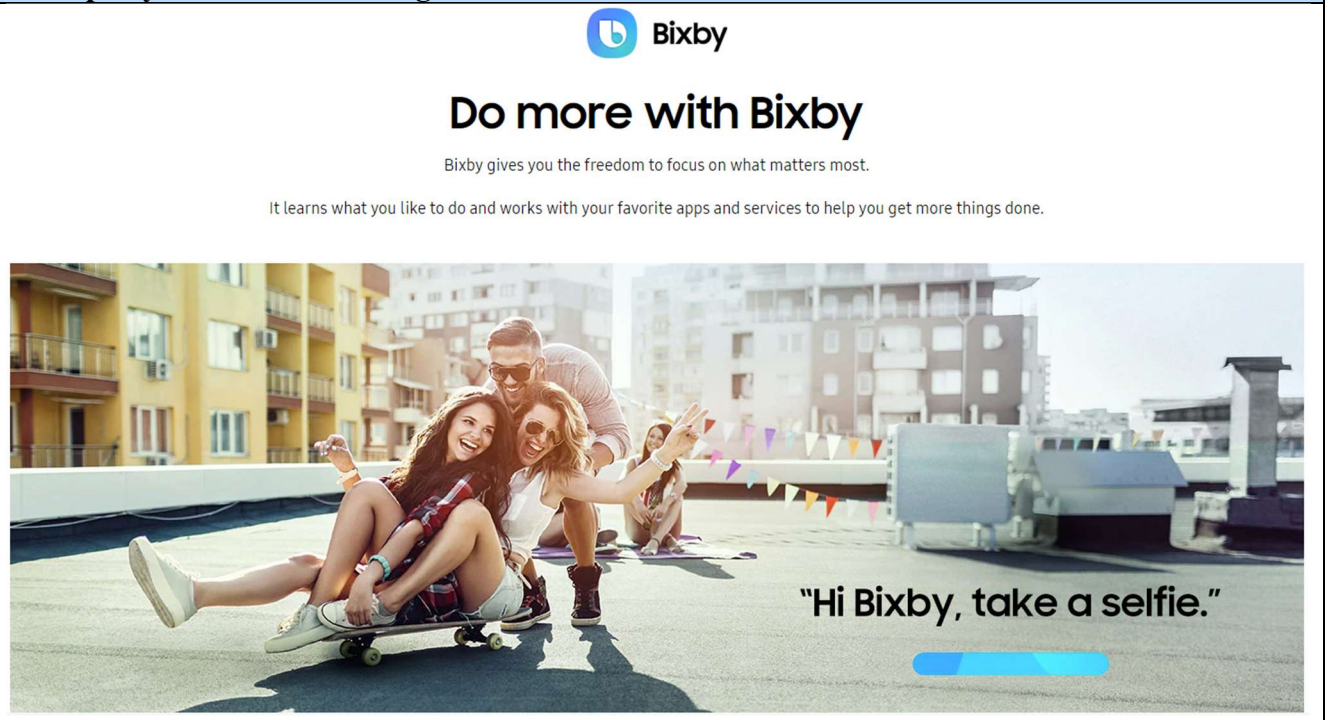
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	https://www.samsung.com/us/support/answer/ANS00089063/; *see also* https://www.samsung.com/us/apps/bixby/.
[11.d] performing a first standby process during a first predetermined time when the command voice includes the first instruction and when the first camera is enabled and the second camera is disabled; and	Each of the Accused Samsung '757 Products includes a case that the first camera is used for photographing: performing a first standby process during a first predetermined time when the command voice includes the first instruction and when the first camera is enabled and the second camera is disabled. *See e.g.*, Technical Specifications of each of the Accused Samsung '757 Products available at Samsung's website showing that each of the devices a case that the first camera is used for photographing: performing a first standby process during a first predetermined time when the command voice includes the first instruction and when the first camera is enabled and the second camera is disabled (https://www.samsung.com/us/mobile/ and https://www.samsung.com/us/tablets/). As a non-limiting example of performing a first standby process, each of the Accused Samsung '757 Products is a smartphone and/or tablet having a first standby process during a first predetermined time when the command voice includes the first instruction and the front facing camera is enabled by the first image signal displayed on the touch screen, but the rear facing camera is disabled by not displaying the second image signal on the touch screen. For example, the Accused Samsung '757 Products' one or more processors (chipset) perform a first standby process including a first predetermined time when Bixby receives a command voice instruction for the front facing camera to begin recording, and the front facing camera's first image signal is displayed on the touch screen, but the rear facing camera's second image signal is not displayed on the touch screen:

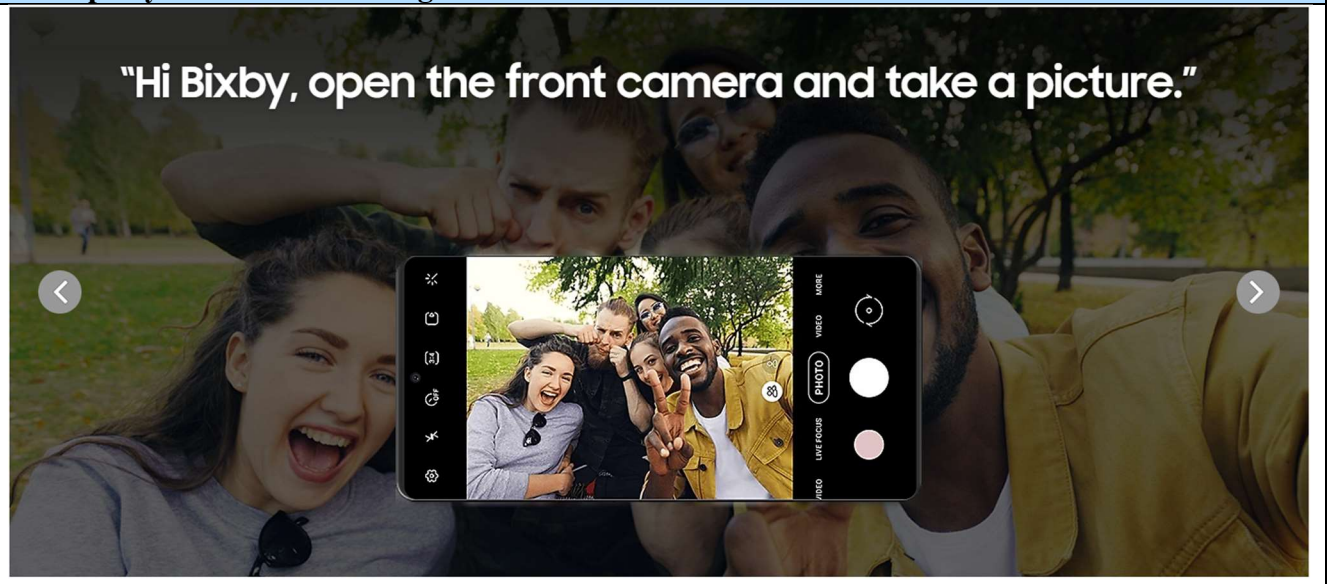
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy S23 Ultra annotated figures showing a first standby process including a predetermined time associated with the front facing camera where the rear facing camera is disabled after a user provides a command voice to Bixby to take a front facing picture, which enables the front facing camera as evidenced by the display displaying image signals from the front facing camera after switching from the rear camera to the front camera.  Galaxy Z Fold4 annotated figures showing a first standby process including a first predetermined time associated with the front facing camera where the rear facing camera is disabled after a user provides a command voice to Bixby to take a front facing picture, which enables the front facing

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	camera as evidenced by the display displaying image signals from the front facing camera after switching from the rear facing camera to the front facing camera.  Galaxy Z Flip4 annotated figures showing a first standby process including a predetermined time associated with the front facing camera where the rear facing camera is disabled after a user provides a command voice to Bixby to take a front facing picture, which enables the front facing camera as evidenced by the display displaying image signals from the front facing camera after switching from the rear camera to the front camera.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy A54 5G annotated figures showing a first standby process including a predetermined time associated with the front facing camera where the rear facing camera is disabled after a user provides a command voice to Bixby to take a front facing picture, which enables the front facing camera as evidenced by the display displaying image signals from the front facing camera after switching from the rear camera to the front camera. *See also* Appendix 8 showing that the remaining Accused Samsung '757 Products include one or more processors (chipset) performing a first standby process during a first predetermined time when the command voice includes the first instruction and when the first camera is enabled and the second camera is disabled. For example, the Accused Samsung '757 Products include one or more processors (chipset), Bixby, a front facing camera, and a first standby process. *See e.g.*, https://www.samsung.com/us/support/answer/ANS00089063/; *see also* https://www.samsung.com/us/apps/bixby/. Doctrine of Equivalents: To the extent Samsung argues that this limitation is not literally met in the Accused Samsung '757 Products, Maxell asserts that this limitation is met under the doctrine of equivalents because the

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	identified structure matches the function, way, and result of the claimed element and, to the extent there is a difference, the difference is insubstantial. For example, to the extent that Samsung argues that the Accused Samsung '757 Products does not have a controller performing a first standby process during a first predetermined time when the command voice includes the first instruction and when the first camera is enabled and the second camera is disabled. Using software, hardware, or combination of the two, the Accused Samsung '757 Products perform substantially the same function (for example, performing a first standby process during a first predetermined time including a first instruction based on command voice) in substantially the same way as claimed (by using audio processing unit, video processing unit, and/or main control unit). The performance of this function achieve substantially the same result, for example, performing a first standby time based on a command voice instruction.
[11.e] start recording the first image signal acquired by the first camera after the first predetermined time; and	Each of the Accused Samsung '757 Products includes a case that the first camera is used for photographing: start recording the first image signal acquired by the first camera after the first predetermined time. *See e.g.*, Technical Specifications of each of the Accused Samsung '757 Products available at Samsung's website showing that each of the devices a case that the first camera is used for photographing: start recording the first image signal acquired by the first camera after the first predetermined time (https://www.samsung.com/us/mobile/ and https://www.samsung.com/us/tablets/). As a non-limiting example of starting recording the first image signal, each of the Accused Samsung '757 Products is a smartphone and/or tablet having one or more processors (chipset) for starting to record a first image signal from the front facing camera after the first predetermined time. For example, the Accused Samsung '757 Products' one or more processors (chipset) start recording with the first predetermined time setting the first image signal from the front facing camera to record after Bixby receives a command voice instruction to record under three (3) exemplary infringement theories:

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 https://www.samsung.com/us/apps/bixby/

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 *Id.*

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Take the best selfies with your Galaxy phone  Selfies: you know you love 'em. Luckily, your Galaxy phone comes with special features like a front-facing camera, built-in filters, and different camera modes so you can take the best possible selfies. **Note:** Available screens and settings may vary by wireless service provider, software version, and phone model. Set up for the perfect selfie › Adjust selfie camera settings › Camera modes › https://www.samsung.com/us/support/answer/ANS00062594/

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

Adjust selfie camera settings

You can also adjust the different settings for your selfies, such as your preferred shooting method, selfie colors, and filters.

For example, you can set the color tone of your photos to bright or natural. Just navigate to the **Camera** app on your phone, tap **Settings**, and then swipe to and tap **Selfie color tone**. This way, you can select from **Natural** or **Bright** before you take a selfie, rather than after.

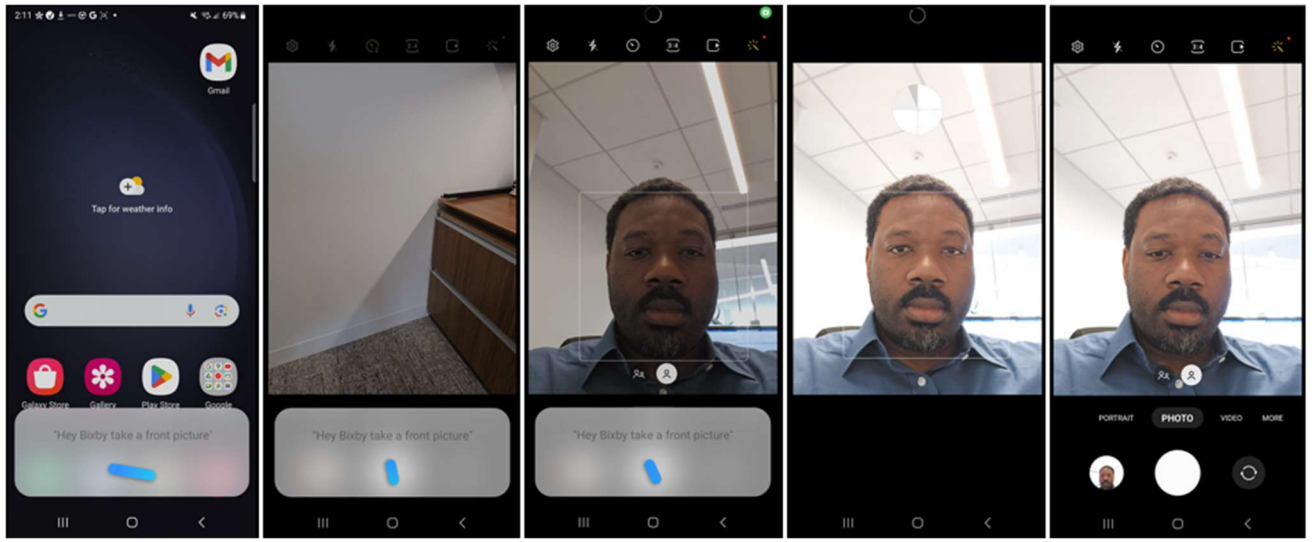
Snapping a photo of yourself can be easy, especially if you do not have to adjust the grip on your phone. Better shooting methods can be accessed from your Camera settings page. Swipe to and tap **Shooting methods**, and then tap **Press Volume keys to** or **Voice commands** to take a photo or video. Or, add a floating shutter button that can be moved around the screen. If you're taking a group selfie, it might be easier to simply show your palm to the screen to take the photo.



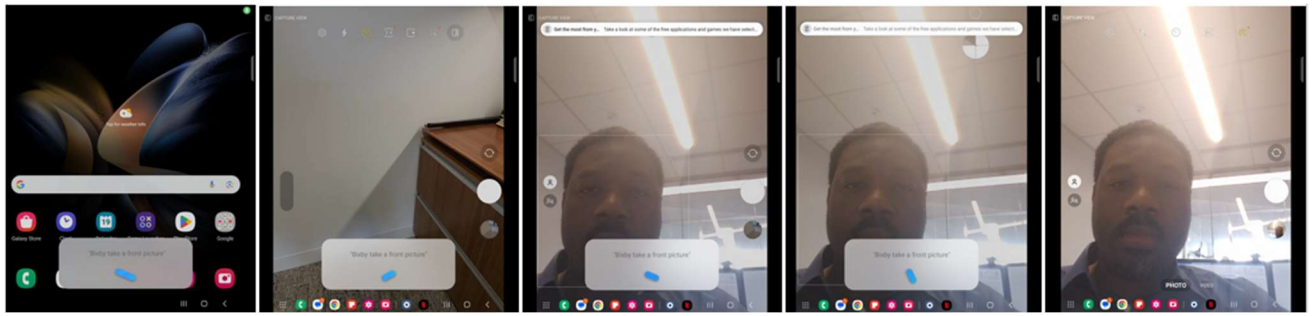
You can also set up automatic Camera modes that appear when launching the app. Tap **Settings to keep**, and then tap **Selfie angle** to use your previous angle again or tap **Filters** to reapply the same filters you have applied in the past. You can also select additional options such as Camera mode, Super steady, and Portrait zoom.

Id.

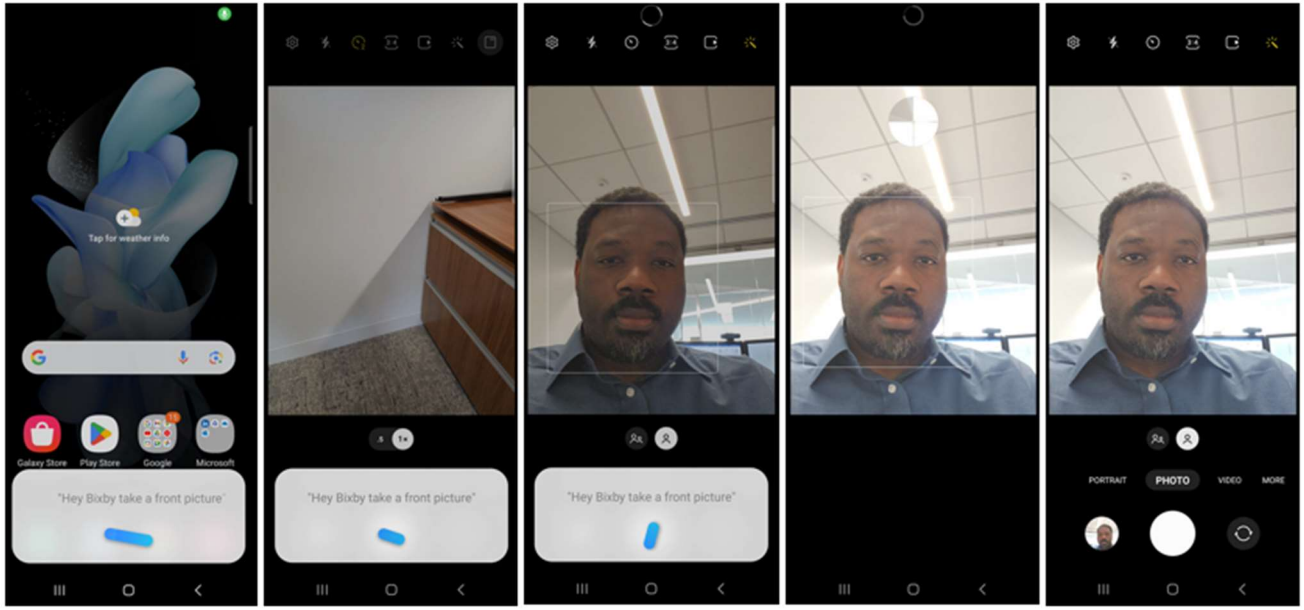
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	First Infringement Theory:

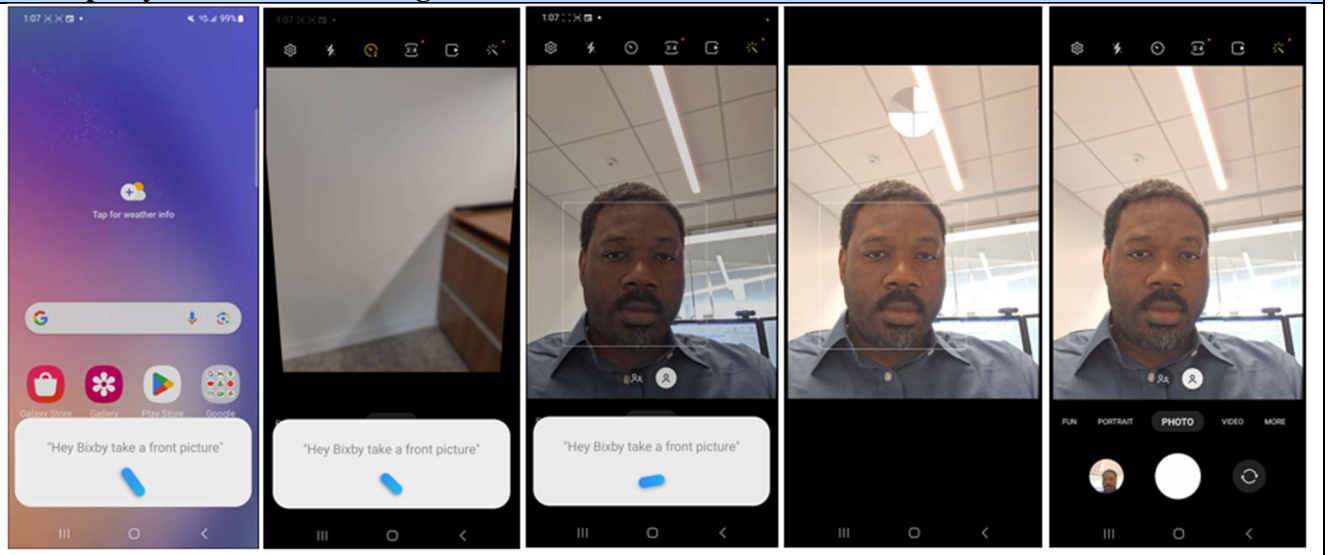


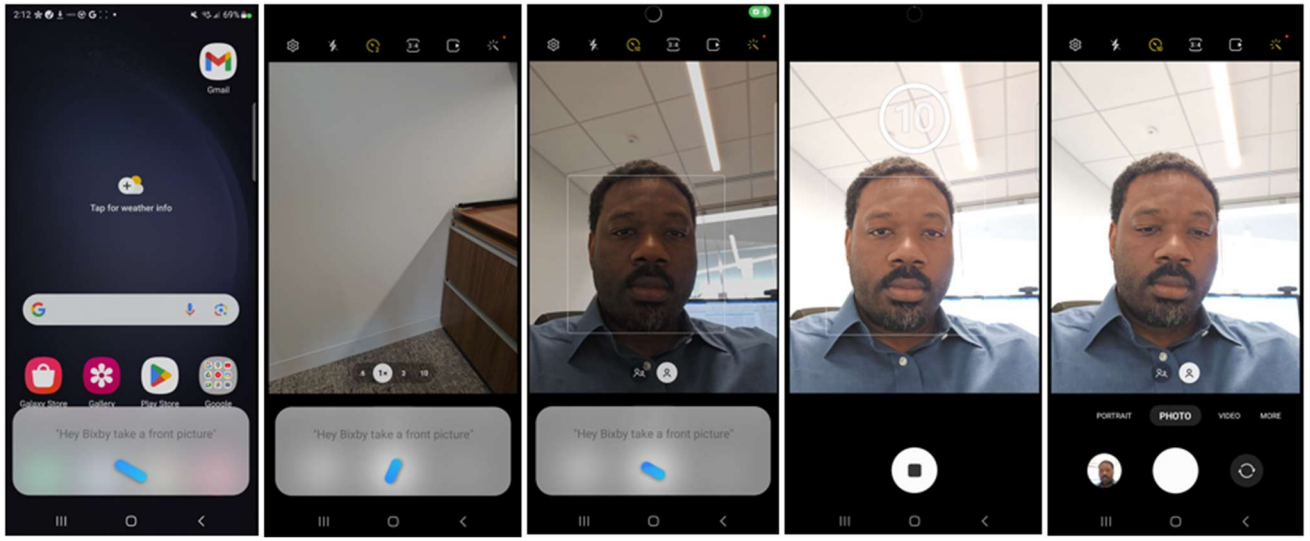
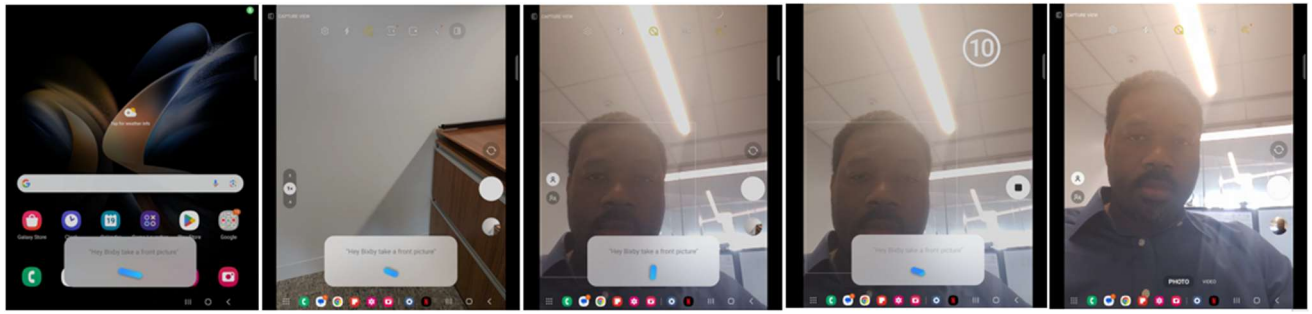
Galaxy S23 Ultra annotated figures showing the first predetermined time being associated with a command voice to Bixby.

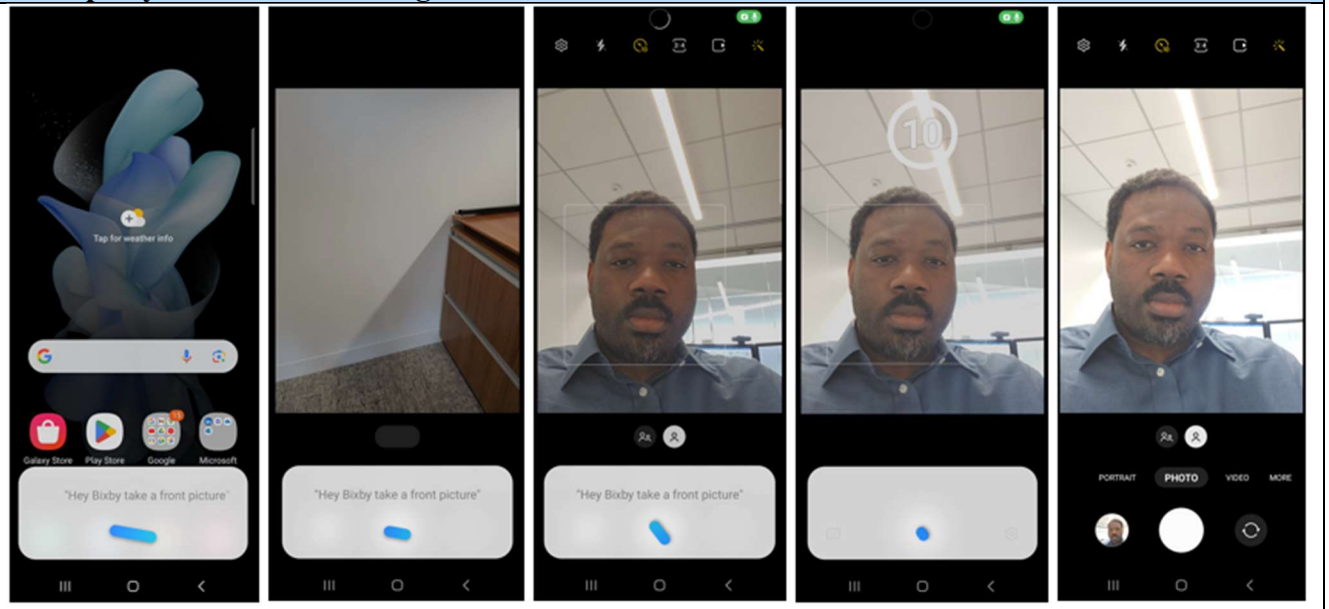


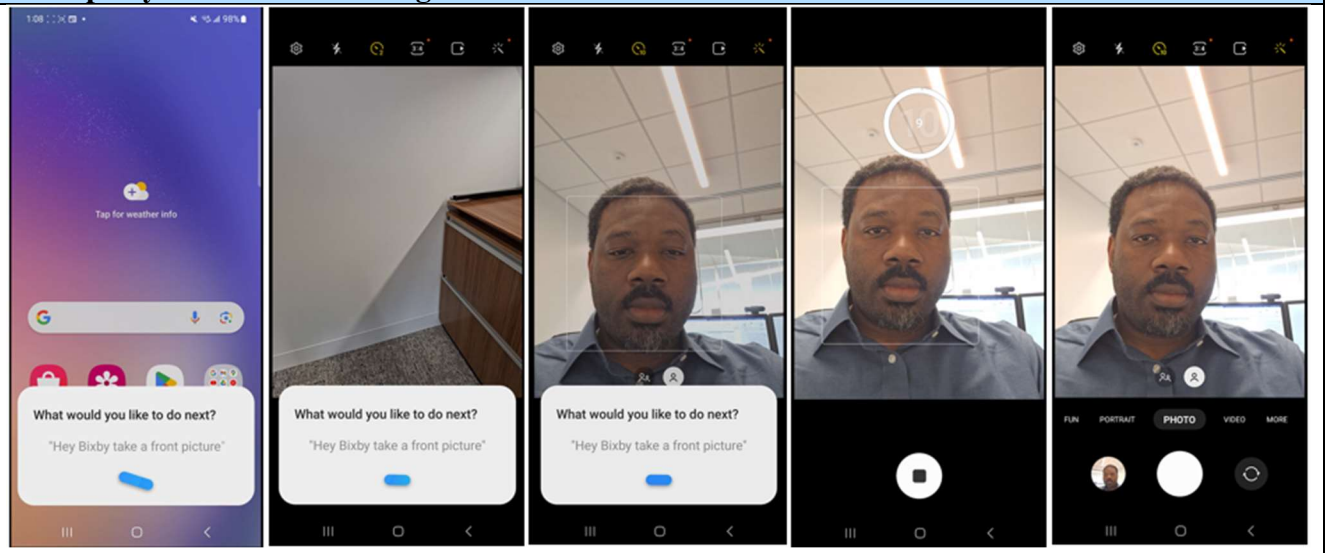
Galaxy Z Fold4 annotated figures showing the first predetermined time being associated with a command voice to Bixby.

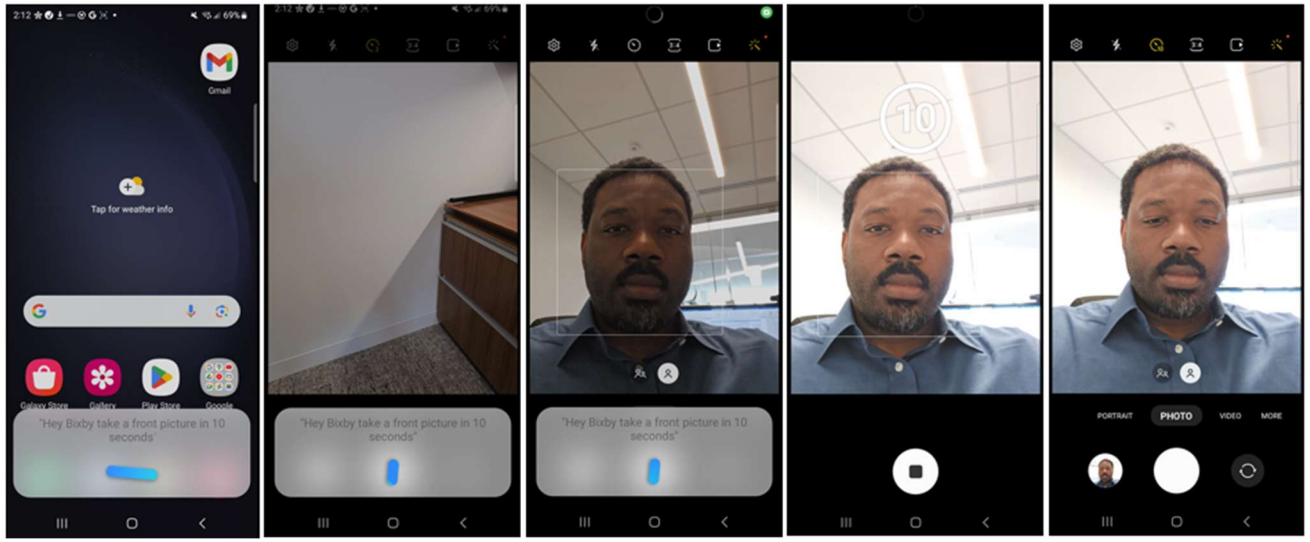
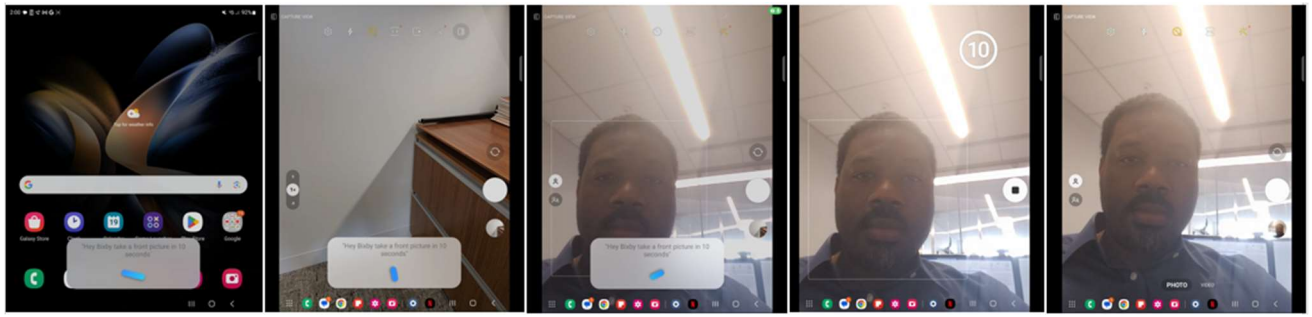
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy Z Flip4 annotated figures showing the first predetermined time being associated with a command voice to Bixby.

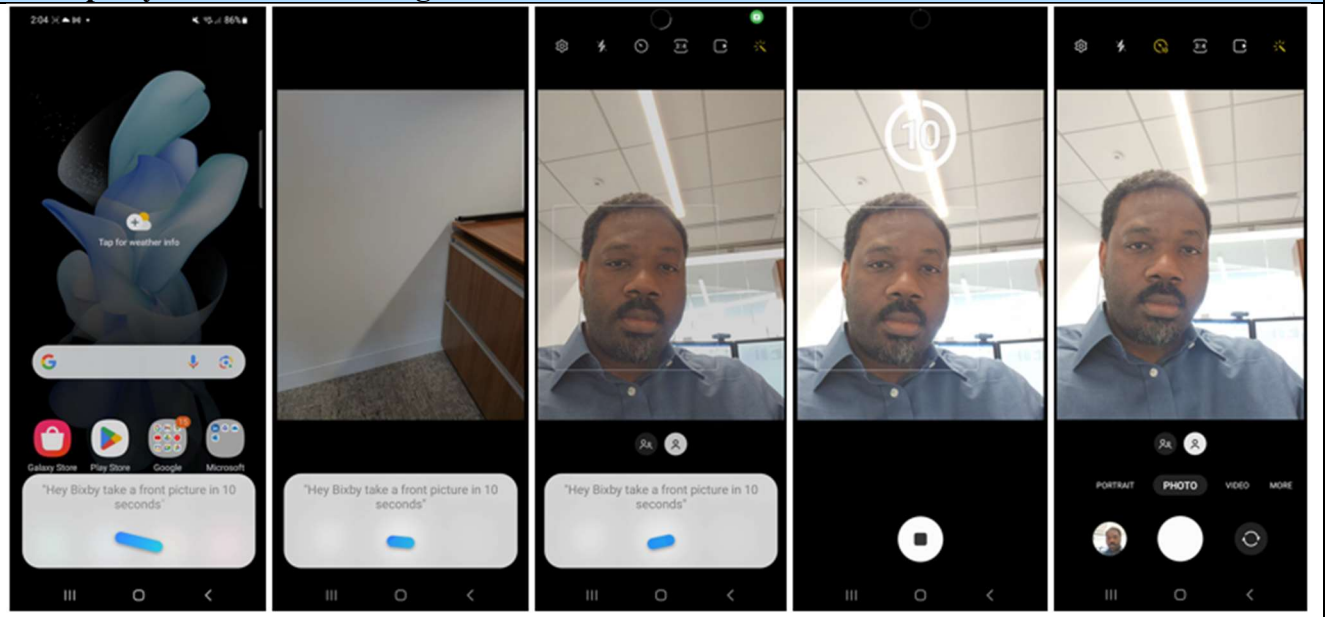
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy A54 5G annotated figures showing the first predetermined time being associated with a command voice to Bixby.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Second Infringement Theory:  Galaxy S23 Ultra annotated figures showing the first predetermined time being associated with a command voice to Bixby after a timer of 10 seconds has been set for the front facing camera.  Galaxy Z Fold4 annotated figures showing the first predetermined time being associated with a command voice to Bixby after a timer of 10 seconds has been set for the front facing camera.

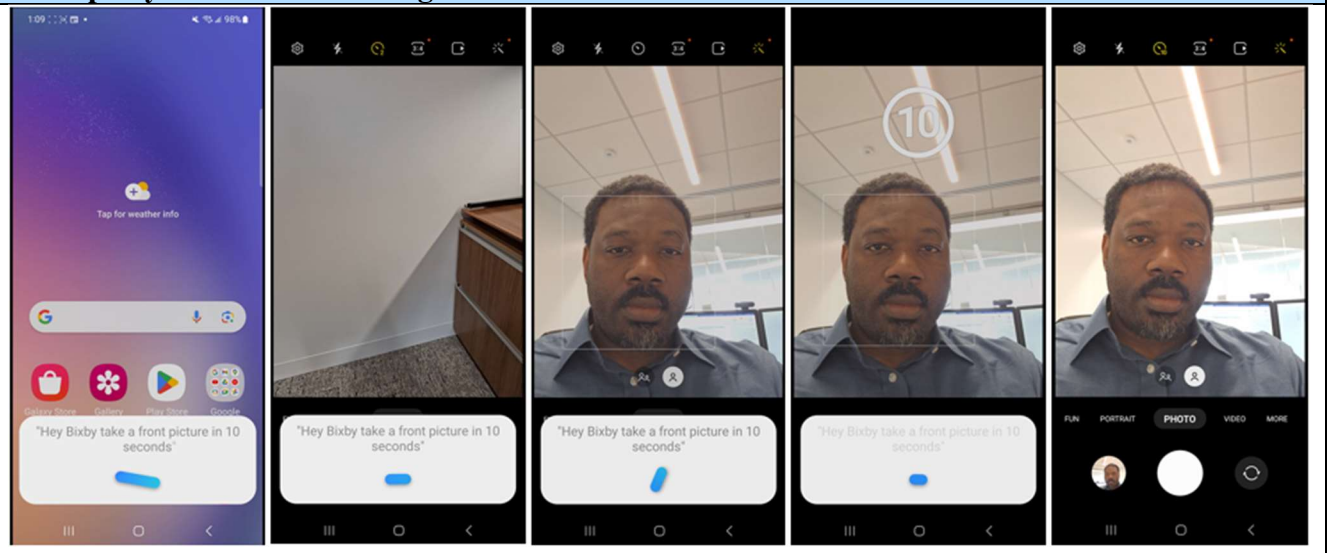
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy Z Flip4 annotated figures showing the first predetermined time being associated with a command voice to Bixby after a timer of 10 seconds has been set for the front facing camera.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy A54 5G annotated figures showing the first predetermined time being associated with a command voice to Bixby after a timer of 10 seconds has been set for the front facing camera.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Third Infringement Theory:  Galaxy S23 Ultra annotated figures showing the first predetermined time being associated with a command voice to Bixby including setting a timer of 10 seconds for the front facing camera.  Galaxy Z Fold4 annotated figures showing the first predetermined time being associated with a command voice to Bixby including setting a timer of 10 seconds for the front facing camera.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy Z Flip4 annotated figures showing the first predetermined time being associated with a command voice to Bixby including setting a timer of 10 seconds for the front facing camera.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

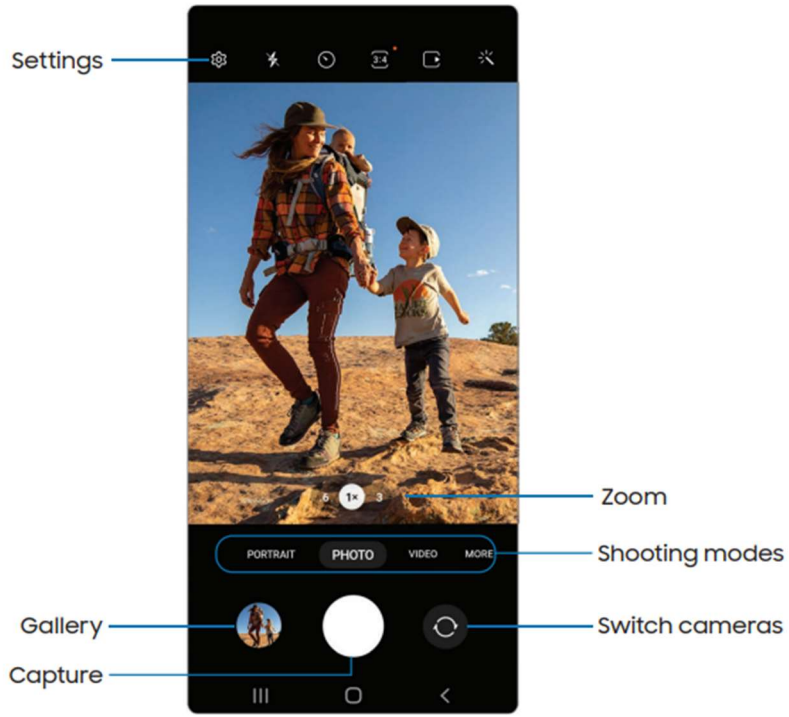


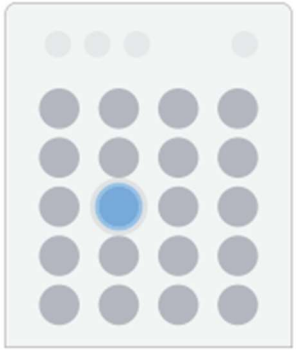
Galaxy A54 5G annotated figures showing the first predetermined time being associated with a command voice to Bixby including setting a timer of 10 seconds for the front facing camera.

See also Appendix 8 showing that the remaining Accused Samsung '757 Products include one or more processors (chipset) start recording the first image signal acquired by the first camera after the first predetermined time. Specifically, the remaining Accused Samsung '757 Products, including Galaxy smartphones and Galaxy tablets also include cameras with a camera application and implement Bixby to control cameras. *See e.g.*, https://www.samsung.com/us/support/answer/ANS00089063/; *see also* https://www.samsung.com/us/apps/bixby/.

Doctrine of Equivalents:
To the extent Samsung argues that this limitation is not literally met in the Accused Samsung '757 Products, Maxell asserts that this limitation is met under the doctrine of equivalents because the identified structure matches the function, way, and result of the claimed element and, to the extent there is a difference, the difference is insubstantial. For example, to the extent that Samsung argues that the Accused Samsung '757 Products does not have a recorder for recording the first image signal acquired by the first camera after the first predetermined time. Using software, hardware, or

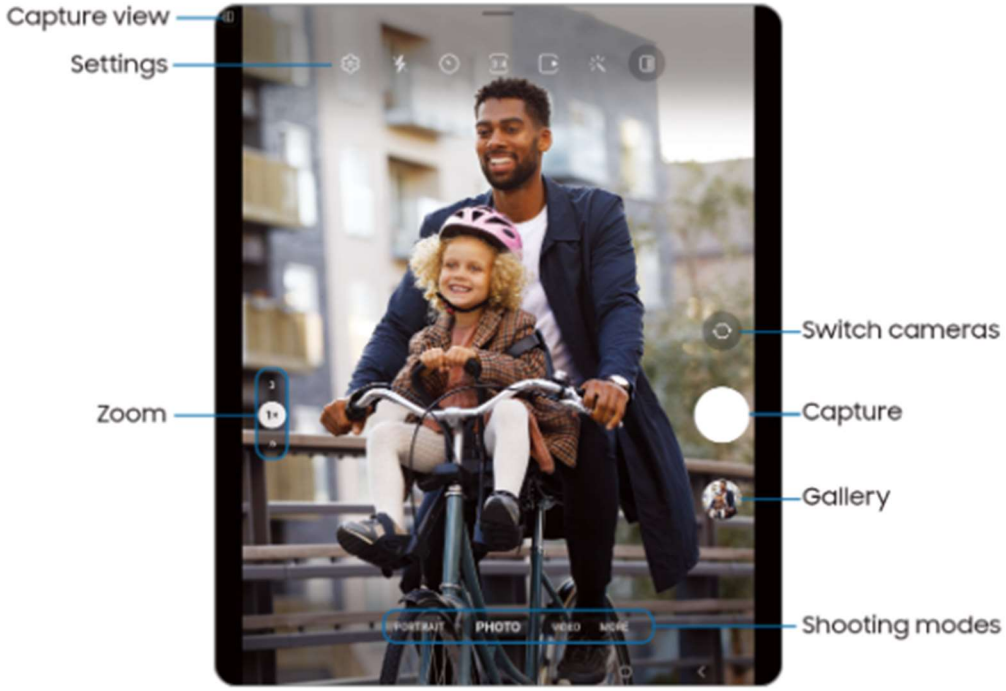
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	combination of the two, the Accused Samsung '757 Products perform substantially the same function (for example, recording of the first image signal after a first predetermined time) in substantially the same way as claimed (by using video signal processing unit, video processing unit, and/or main control). The performance of this function achieve substantially the same result, for example, recording videos from the first camera after a first predetermined time.
[11.f] in a case that the second camera is used for photographing: receiving a touch operation instruction from the touch display;	Each of the Accused Samsung '757 Products includes a case that the second camera is used for photographing: receiving a touch operation instruction from the touch display. *See e.g.*, Technical Specifications of each of the Accused Samsung '757 Products available at Samsung's website showing that each of the devices include a case that the second camera is used for photographing: receiving a touch operation instruction from the touch display (https://www.samsung.com/us/mobile/ and https://www.samsung.com/us/tablets/). As a non-limiting example of an audio input interface, each of the Accused Samsung '757 Products is a smartphone and/or tablet having a touch display for receiving a touch operation instruction to photograph an object with the rear facing camera. For example, the Accused Samsung '757 Products' touch display can receive a touch operation to display an image signal from the rear facing camera as a still-image via the "capture" icon:

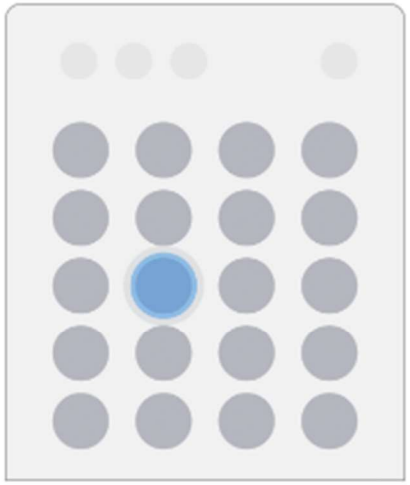
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Camera Enjoy a full kit of pro lenses and pro-grade video modes and settings. ○ From Apps, tap Camera. TIP Quickly press the Side key twice to open the Camera app.  Galaxy S23 Ultra technical specification; https://downloadcenter.samsung.com/content/UM/202302/20230228053129621/SAM_S911_S916_S918_EN_UM_OS13_020223_FINAL_AC_022023.pdf at 58.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Navigation A touch screen responds best to a light touch from the pad of your finger or a capacitive stylus. Using excessive force or a metallic object on the touch screen may damage the surface of the screen and the damage will not be covered by the warranty. Tap  Lightly touch items to select or launch them. • Tap an item to select it. • Double-tap an image to zoom in or out. *Id.* at 17.

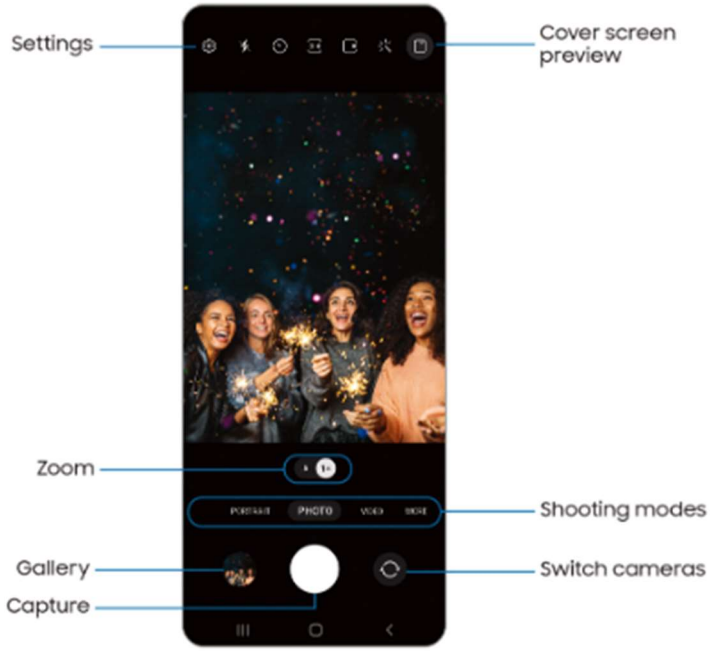
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Touch settings You can adjust your screen to be less sensitive to taps and touches. ○ From Settings, tap **Accessibility** > **Interaction and dexterity** and tap an option: • **Touch and hold delay**: Select a time interval for this action. • **Tap duration**: Set how long an interaction must be held to be recognized as a tap. • **Ignore repeated touches**: Set a time duration in which to ignore repeated touches. *Id.* at 171.

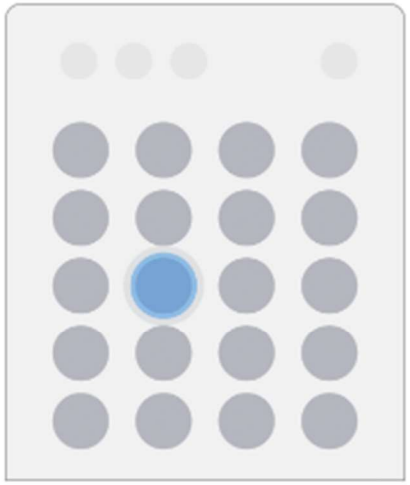
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Navigate the camera screen Take stunning pictures with your device's front and rear cameras. 1. From Camera, set up your shot with the following features: • Tap the screen where you want the camera to focus. – When you tap the screen, a brightness scale appears. Drag the slider to adjust the brightness. • To quickly switch between the front and rear cameras, swipe the screen up or down. • To zoom at a precise level, tap 1x and tap an option at the bottom of the screen. (Only available when using the rear camera.) • To change to a different shooting mode, swipe the screen right or left. • To change camera settings, tap Settings. 2. Tap Capture. *Id.* at 59.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy Z Fold4 Camera features  **Capture and view** View the pictures and videos you capture while still using your camera. Images will be shown on the side panel until the Camera app is closed. This feature is only available when the device is open. ○ From Camera, tap Capture View. Galaxy Z Fold4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/galaxy_z_fold4_camera_features_d1e3185.

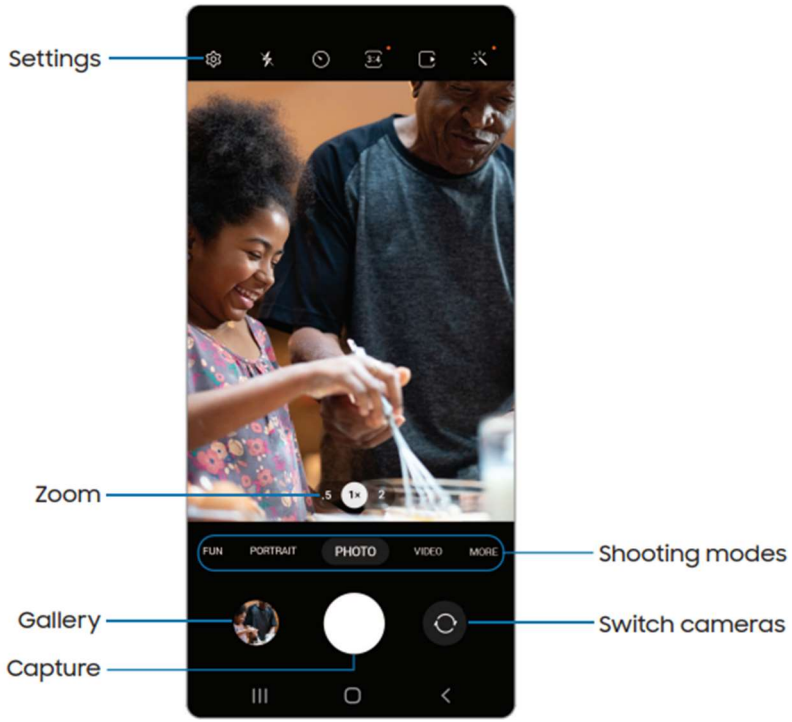
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Navigation A touch screen responds best to a light touch from the pad of your finger or a capacitive stylus. Using excessive force or a metallic object on the touch screen may damage the surface of the screen and the damage will not be covered by the warranty. Tap  Lightly touch items to select or launch them. • Tap an item to select it. • Double-tap an image to zoom in or out. Galaxy Z Fold4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/navigation_d1e1242.html.

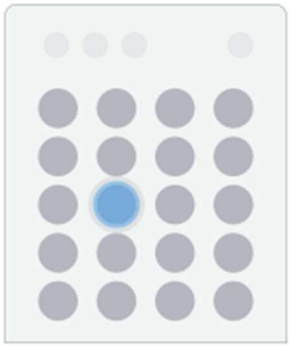
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Touch settings You can adjust your screen to be less sensitive to taps and touches. ○ From Settings, tap **Accessibility** > **Interaction and dexterity** and tap an option: • **Touch and hold delay**: Select a time interval for this action. • **Tap duration**: Set how long an interaction must be held to be recognized as a tap. • **Ignore repeated touches**: Set a time duration in which to ignore repeated touches. Galaxy Z Fold4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/interaction_and_dexterity_d1e11982.html#d1e13816. **Navigate the camera screen** Take stunning pictures with your device's front and rear cameras. 1. From **Camera**, set up your shot with the following features: • Tap the screen where you want the camera to focus. - When you tap the screen, a brightness scale appears. Drag the slider to adjust the brightness. • To quickly switch between the front and rear cameras, swipe the screen up or down. • To zoom at a precise level, tap **1x** and tap an option at the bottom of the screen. (Only available when using the rear camera.) • To change to a different shooting mode, swipe the screen right or left. • To change camera settings, tap **Settings**. 2. Tap **Capture**. Galaxy Z Fold4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/navigate_the_camera_screen_d1e3147.html.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy Z Flip4 Camera features  **Selfies in Flex mode** Use your camera in Flex mode for hands-free selfies. 1. Place your phone on a flat surface in table top view. 2. From **Camera**, tap **Portrait**. 3. Tap or to move the camera preview to the top or bottom half of the screen. Galaxy Z Flip4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/galaxy_z_flip4_camera_features_d1e3206.html.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Navigation A touch screen responds best to a light touch from the pad of your finger or a capacitive stylus. Using excessive force or a metallic object on the touch screen may damage the surface of the screen and the damage will not be covered by the warranty. Tap  Lightly touch items to select or launch them. • Tap an item to select it. • Double-tap an image to zoom in or out. Galaxy Z Flip4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/navigation_d1e1242.html.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Touch settings You can adjust your screen to be less sensitive to taps and touches. ○ From Settings, tap **Accessibility** > **Interaction and dexterity** and tap an option: • **Touch and hold delay**: Select a time interval for this action. • **Tap duration**: Set how long an interaction must be held to be recognized as a tap. • **Ignore repeated touches**: Set a time duration in which to ignore repeated touches. Galaxy Z Flip4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/interaction_and_dexterity_d1e11982.html#d1e13816. **Navigate the camera screen** Take stunning pictures with your device's front and rear cameras. 1. From **Camera**, set up your shot with the following features: • Tap the screen where you want the camera to focus. - When you tap the screen, a brightness scale appears. Drag the slider to adjust the brightness. • To quickly switch between the front and rear cameras, swipe the screen up or down. • To zoom at a precise level, tap **1x** and tap an option at the bottom of the screen. (Only available when using the rear camera.) • To change to a different shooting mode, swipe the screen right or left. • To change camera settings, tap **Settings**. 2. Tap **Capture**. Galaxy Z Flip4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/navigate_the_camera_screen_d1e3147.html.

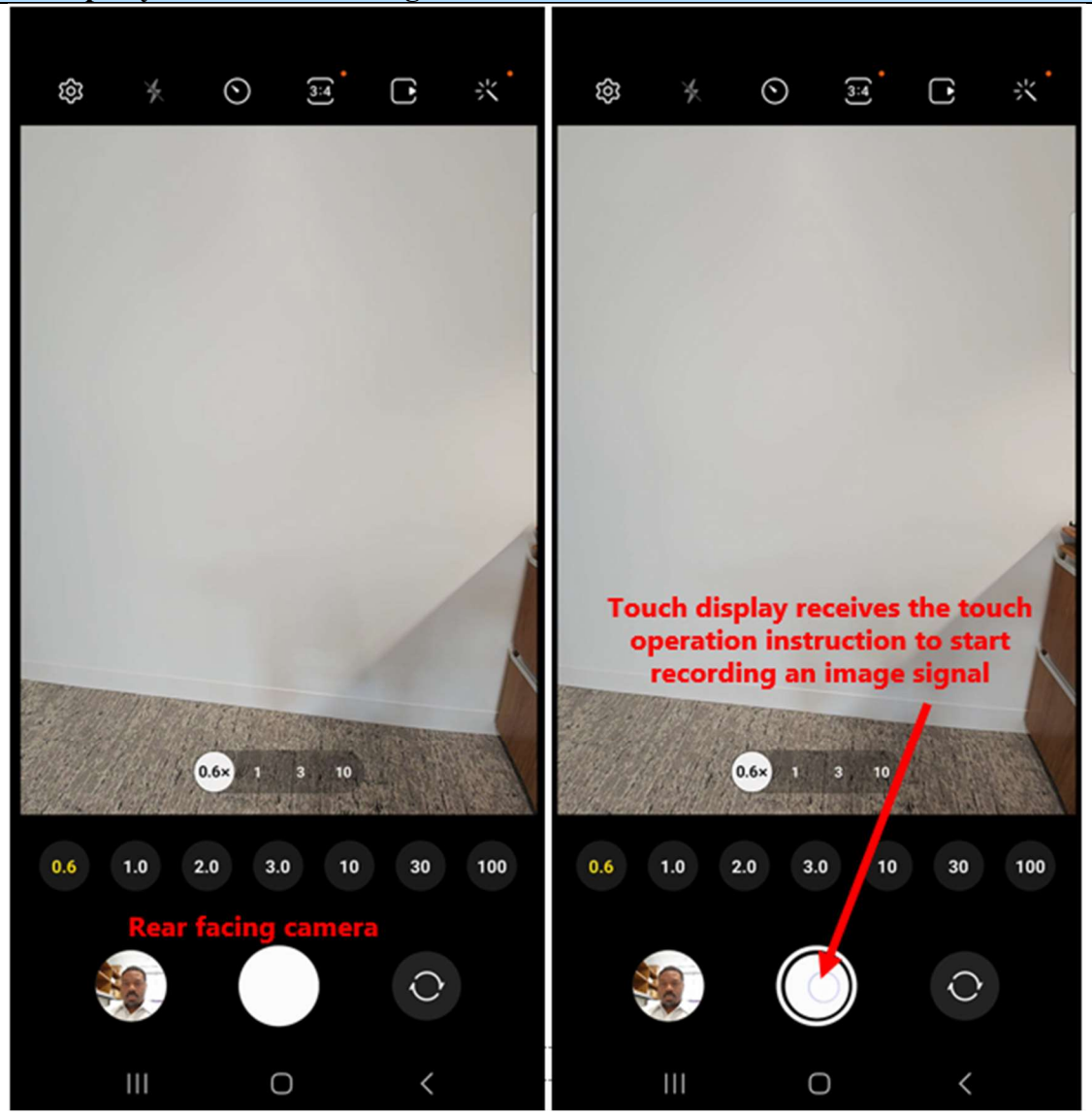
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Camera Enjoy a full kit of pro lenses and pro-grade video modes and settings. ○ From Apps, tap Camera. TIP Quickly press the Side key twice to open the Camera app.  Galaxy A54 5G technical specifications; https://downloadcenter.samsung.com/content/UM/202304/20230407022332214/SAM_A546_EN_UM_OS13_040523_FINAL.pdf at 40.

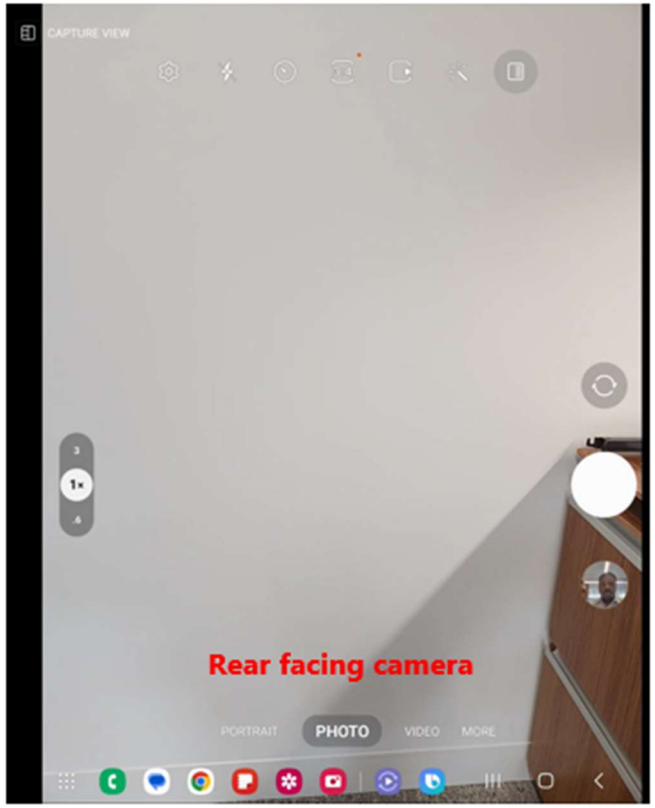
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Navigation A touch screen responds best to a light touch from the pad of your finger or a capacitive stylus. Using excessive force or a metallic object on the touch screen may damage the surface of the screen and the damage will not be covered by the warranty. Tap  Lightly touch items to select or launch them. • Tap an item to select it. • Double-tap an image to zoom in or out. *Id.* at 12.

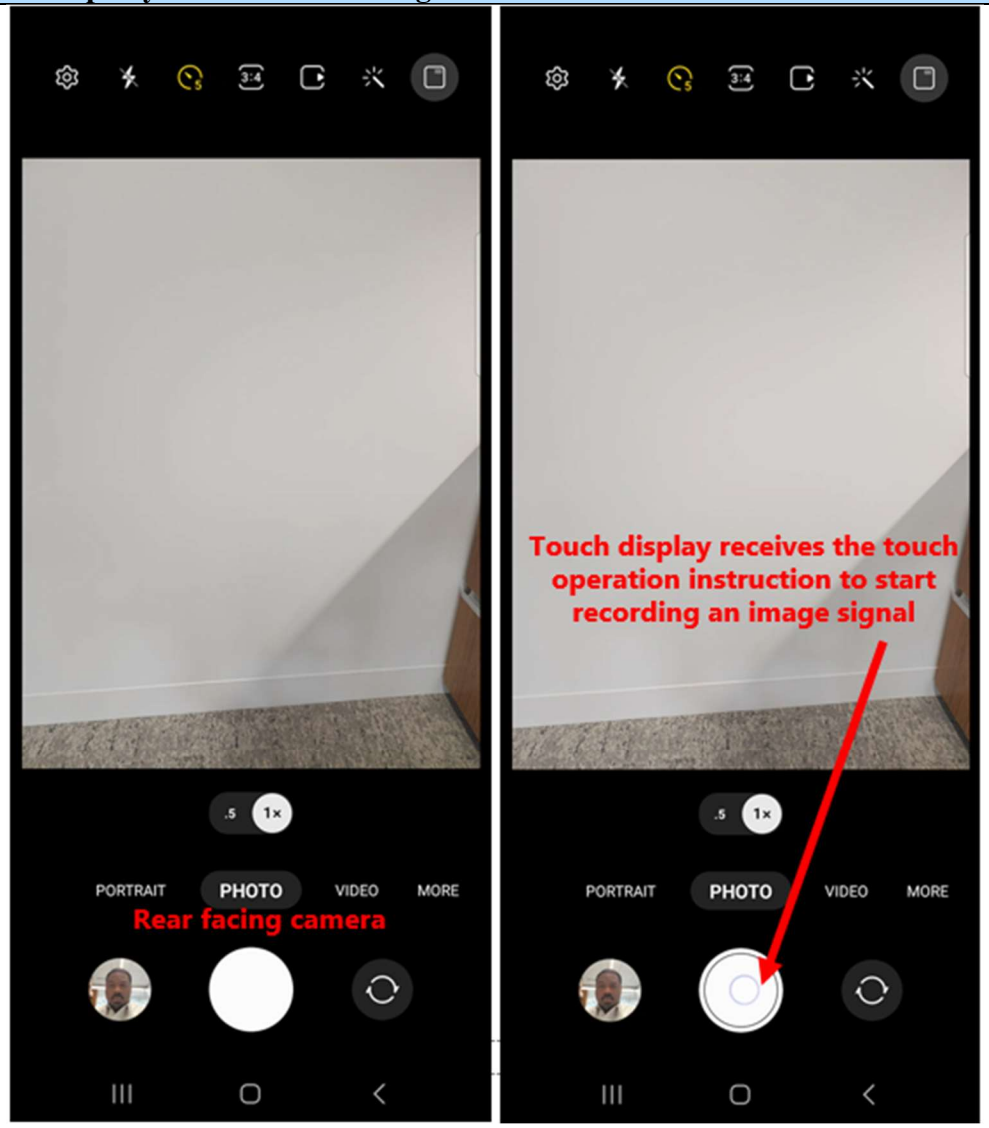
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Touch settings You can adjust your screen to be less sensitive to taps and touches. ○ From Settings, tap **Accessibility** > **Interaction and dexterity** and tap an option: • **Touch and hold delay**: Select a time interval for this action. • **Tap duration**: Set how long an interaction must be held to be recognized as a tap. • **Ignore repeated touches**: Set a time duration in which to ignore repeated touches. *Id.* at 154.

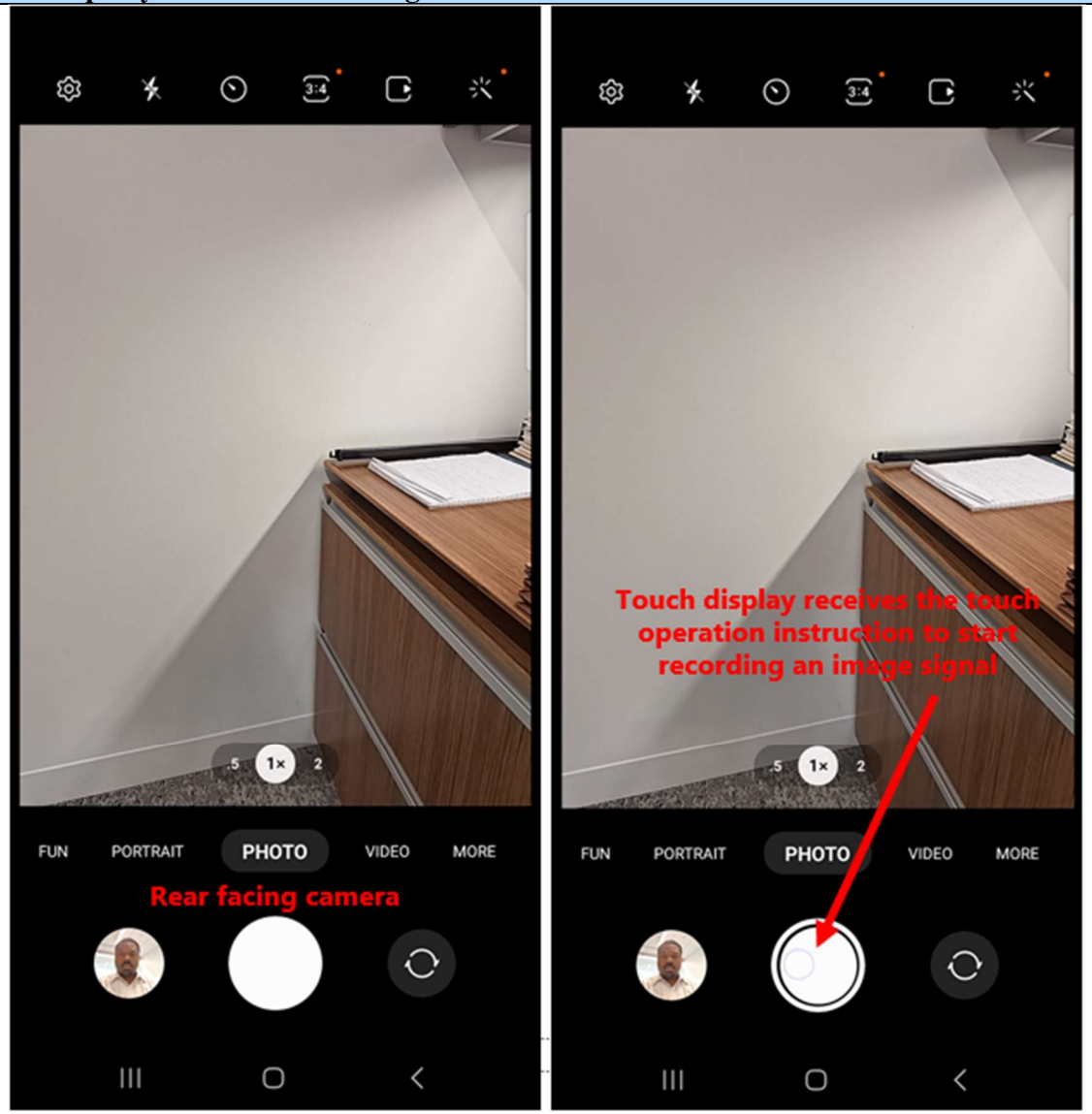
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Navigate the camera screen Take stunning pictures with your device's front and rear cameras. 1. From **Camera**, set up your shot with the following features: • Tap the screen where you want the camera to focus. – When you tap the screen, a brightness scale appears. Drag the slider to adjust the brightness. • To quickly switch between the front and rear cameras, swipe the screen up or down. • To zoom at a precise level, tap **1x** and tap an option at the bottom of the screen. (Only available when using the rear camera.) • To change to a different shooting mode, swipe the screen right or left. • To change camera settings, tap **Settings**. 2. Tap **Capture**. *Id.* at 41. *See also* Appendix 8 showing that the remaining Accused Samsung '757 Products are smartphones and/or tablets capable of photographing with a rear facing camera by receiving a touch operation instruction to photograph an object. Specifically, the remaining Accused Samsung '757 Products, including Galaxy smartphones and Galaxy tablets have a rear facing camera and a touch screen. *See* https://www.samsung.com/us/support/answer/ANS00089063/.
[11.g] determining whether or not the touch operation instruction includes a second instruction to start a recording of the second image signal;	Each of the Accused Samsung '757 Products includes a case that the second camera is used for photographing: determining whether or not the touch operation instruction includes a second instruction to start a recording of the second image signal. *See e.g.*, Technical Specifications of each of the Accused Samsung '757 Products available at Samsung's website showing that each of the devices includes a case that the second camera is used for photographing: determining whether or

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	not the touch operation instruction includes a second instruction to start a recording of the second image signal (https://www.samsung.com/us/mobile/ and https://www.samsung.com/us/tablets/). As a non-limiting example of determining whether or not the touch operation instruction includes a second instruction, each of the Accused Samsung '757 Products is a smartphone and/or tablet having one or more processors (chipset), as a controller, to determine whether or not the touch display receives touch operation instructions giving a second instruction to start a recording of a second image signal. For example, the Accused Samsung '757 Products' one or more processors (chipset) control such that the rear facing camera records an image signal upon user giving a first instruction being a touch operation instruction to touch display screen for the one or more processors (chipset) to start the recording process for a still-image. The following exemplary annotated screenshots show the implementation of determining whether or not the touch operation instruction includes a second instruction being a touch operation instruction to the display screen to start a recording of a second image signal (still-image) from the rear facing camera:

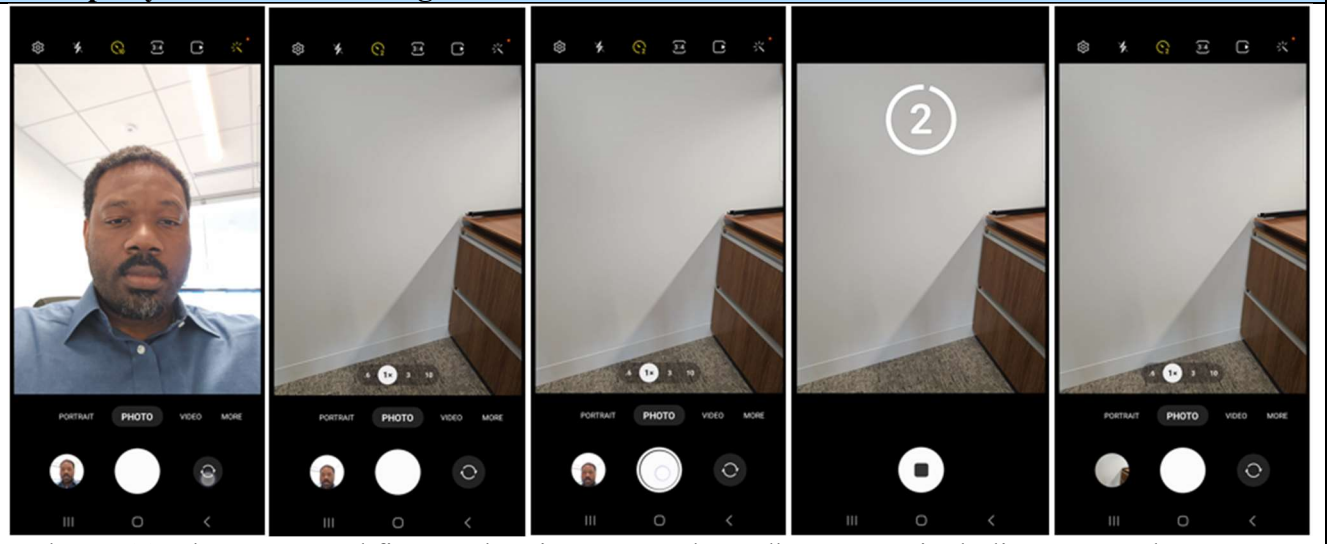
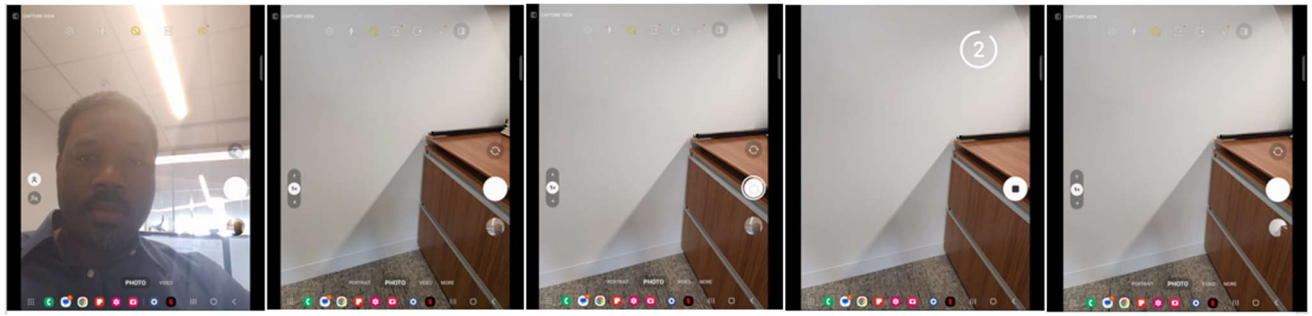
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy S23 Ultra annotated figures.

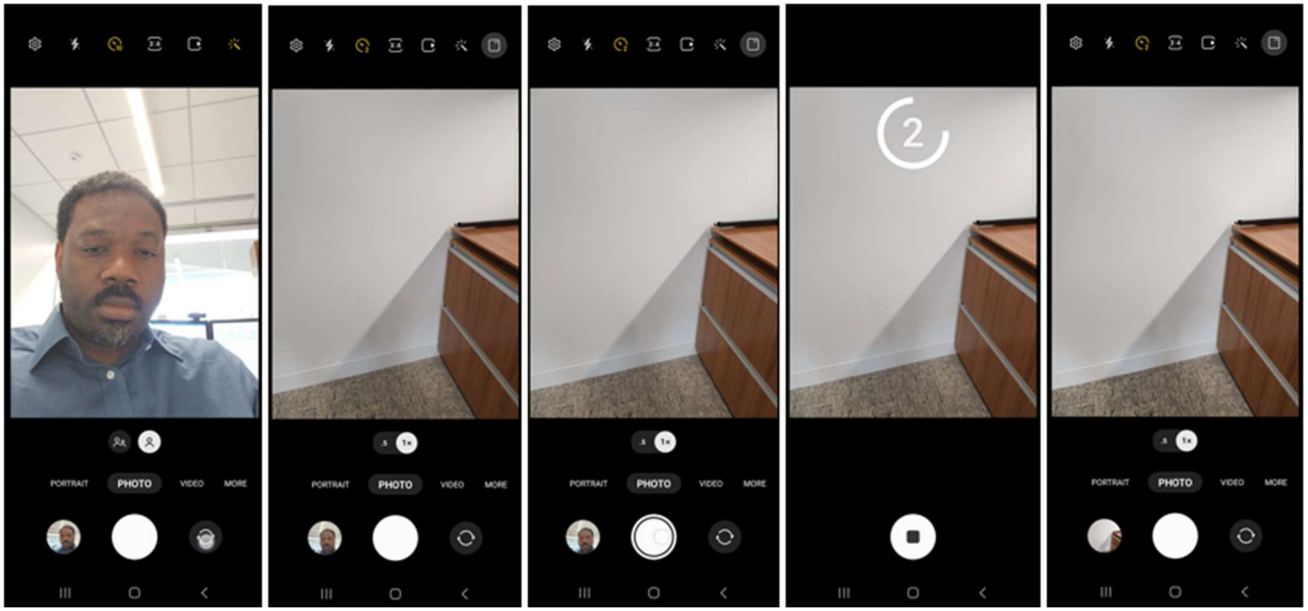
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy Z Fold4 annotated figures.

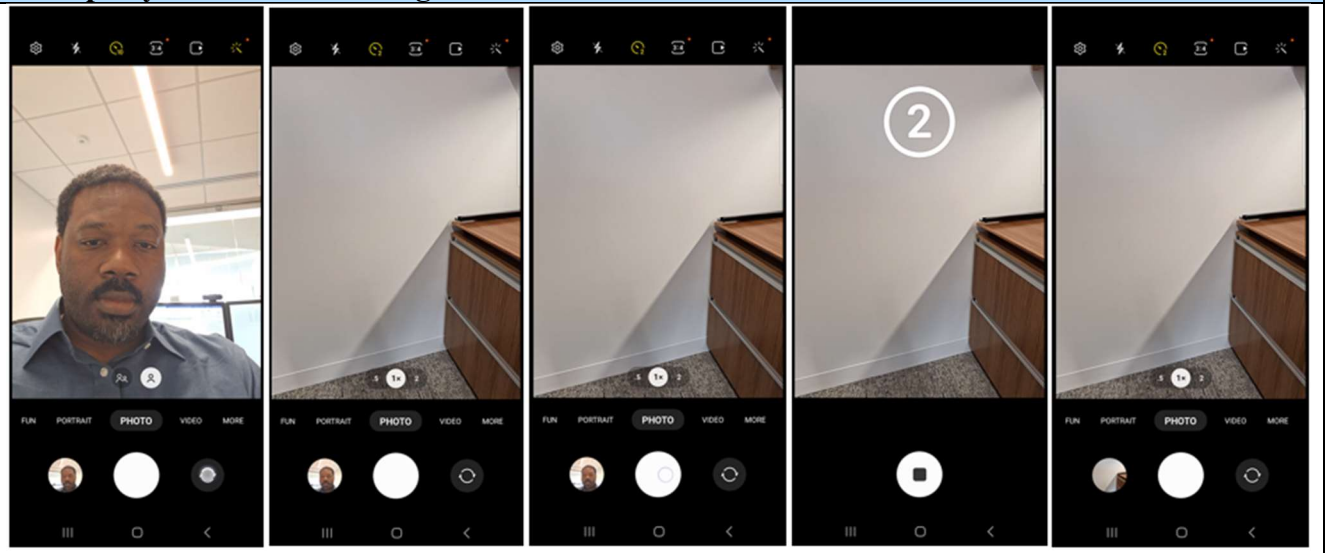
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy Z Flip4 annotated figures.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy A54 5G annotated figures.

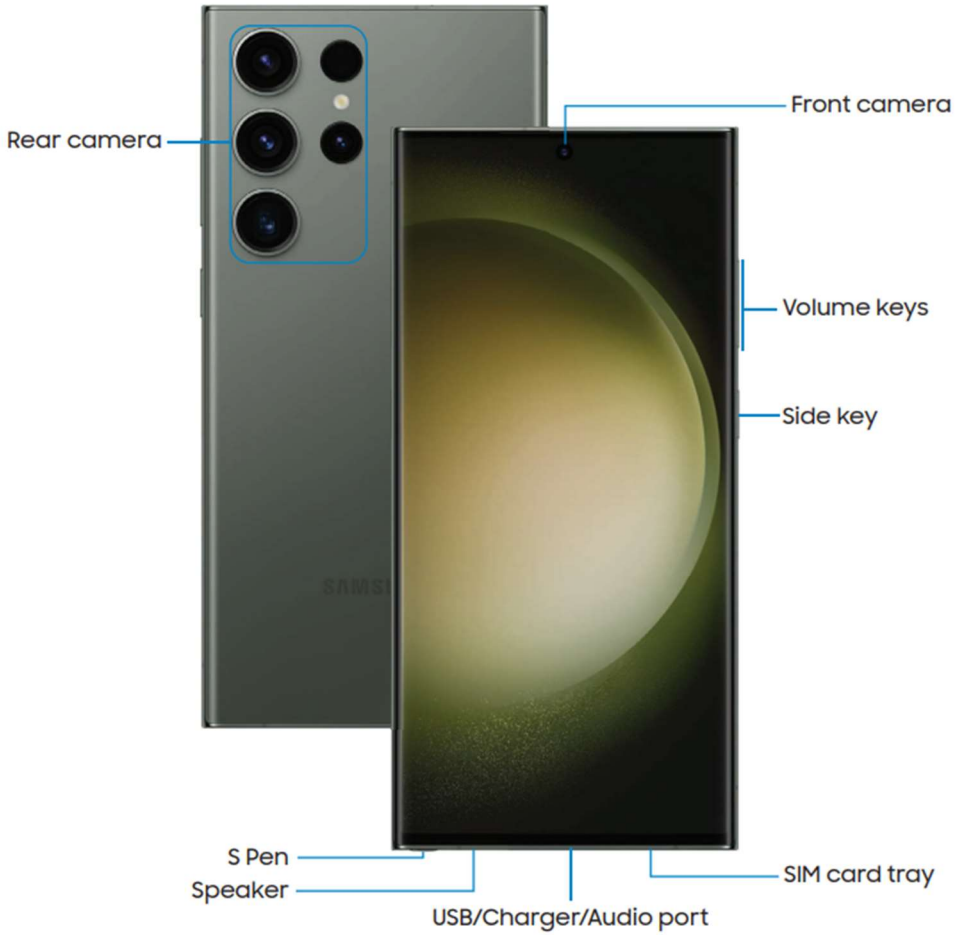
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	See also Appendix 8 showing that the remaining Accused Samsung '757 Products' one or more processors (chipset) determines whether or not the touch operation instruction includes a second instruction to start a recording of a second image signal. For example, the Accused Samsung '757 Products include one or more processors (chipset), a touch screen display, and a rear facing camera for taking still-images. *See* https://www.samsung.com/us/support/answer/ANS00089063/.
[11.h] performing a second standby process during a second predetermined time when the touch operation instruction includes the second instruction and when the second camera is enabled and the first camera is disabled; and	Each of the Accused Samsung '757 Products includes a case that the second camera is used for photographing: performing a second standby process during a second predetermined time when the touch operation instruction includes the second instruction and when the second camera is enabled and the first camera is disabled. *See e.g.*, Technical Specifications of each of the Accused Samsung '757 Products available at Samsung's website showing that each of the devices a case that the second camera is used for photographing: performing a second standby process during a second predetermined time when the touch operation instruction includes the second instruction and when the second camera is enabled and the first camera is disabled (https://www.samsung.com/us/mobile/ and https://www.samsung.com/us/tablets/). As a non-limiting example of performing a second standby process, each of the Accused Samsung '757 Products is a smartphone and/or tablet having a second standby process during a second predetermined time when the touch operation instruction includes the second instruction and the rear facing camera is enabled by the second image signal displayed on the touch screen, but the front facing camera is disabled by not displaying the first image signal on the touch screen. For example, the Accused Samsung '757 Products' one or more processors (chipset) perform a second standby process including a second predetermined time when the one or more processors (chipset) receives a touch operation instruction on the touch display screen for the rear facing camera to begin recording, and the rear facing camera's second image signal is displayed on the touch screen, but the front facing camera's first image signal is not displayed on the touch screen:

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy S23 Ultra annotated figures showing a second standby process including a second predetermined time associated with the rear facing camera where the front facing camera is disabled after a user provides a touch operation instruction to touch screen display to take a rear facing picture, which enables the rear facing camera as evidenced by the display displaying image signals from the rear facing camera after switching from the front facing camera to the rear facing camera.  Galaxy Z Fold4 annotated figures showing a second standby process including a second predetermined time associated with the rear facing camera where the front facing camera is disabled after a user provides a touch operation instruction to touch screen display to take a rear facing

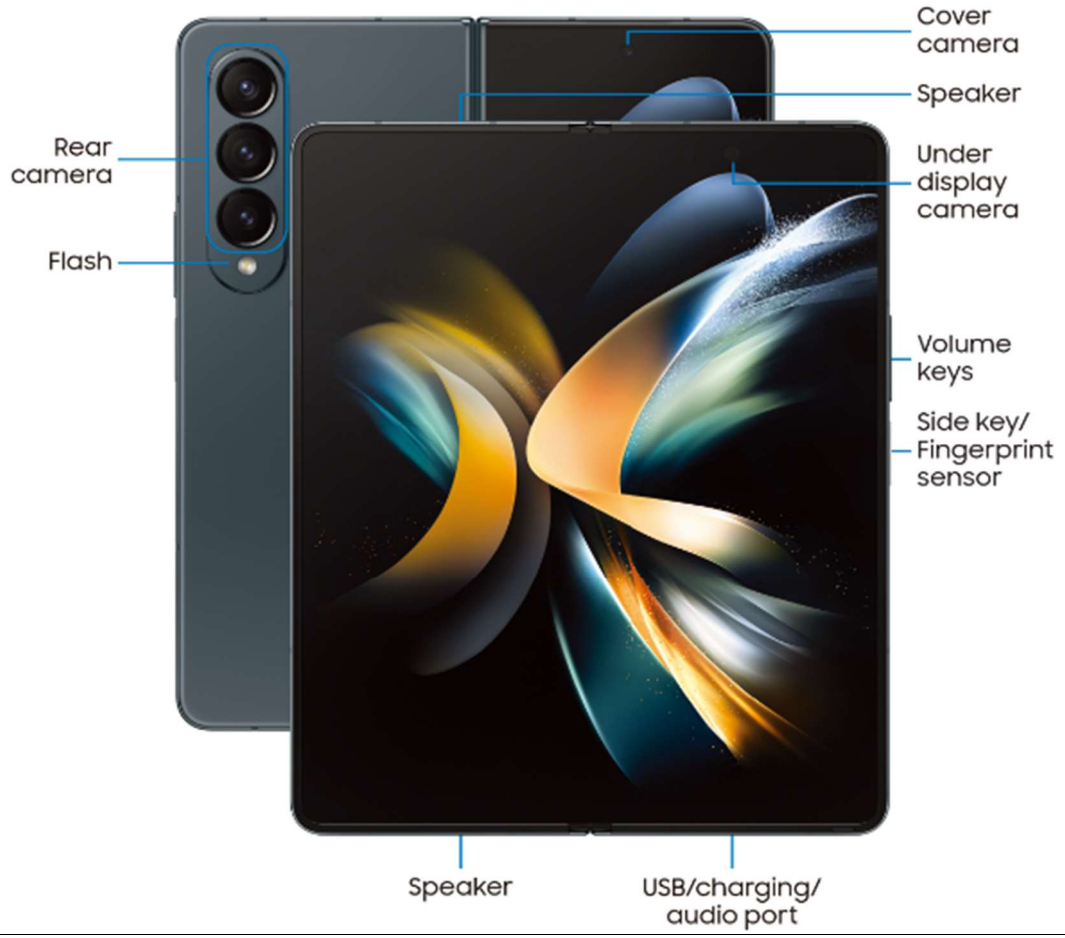
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	picture, which enables the rear facing camera as evidenced by the display displaying image signals from the rear facing camera after switching from the front facing camera to the rear facing camera.  Galaxy Z Flip4 annotated figures showing a second standby process including a second predetermined time associated with the rear facing camera where the front facing camera is disabled after a user provides a touch operation instruction to touch screen display to take a rear facing picture, which enables the rear facing camera as evidenced by the display displaying image signals from the rear facing camera after switching from the front facing camera to the rear facing camera.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy A54 5G annotated figures showing a second standby process including a second predetermined time associated with the rear facing camera where the front facing camera is disabled after a user provides a touch operation instruction to touch screen display to take a rear facing picture, which enables the rear facing camera as evidenced by the display displaying image signals from the rear facing camera after switching from the front facing camera to the rear facing camera. *See also* Appendix 8 showing that the remaining Accused Samsung '757 Products include one or more processors (chipset) performing a second standby process during a second predetermined time when the touch operation instruction includes the second instruction and when the second camera is enabled and the first camera is disabled. For example, the Accused Samsung '757 Products include one or more processors (chipset), Bixby, a rear facing camera, and a second standby process. *See e.g.*, https://www.samsung.com/us/support/answer/ANS00089063/; *see also* https://www.samsung.com/us/apps/bixby/. Doctrine of Equivalents: To the extent Samsung argues that this limitation is not literally met in the Accused Samsung '757 Products, Maxell asserts that this limitation is met under the doctrine of equivalents because the

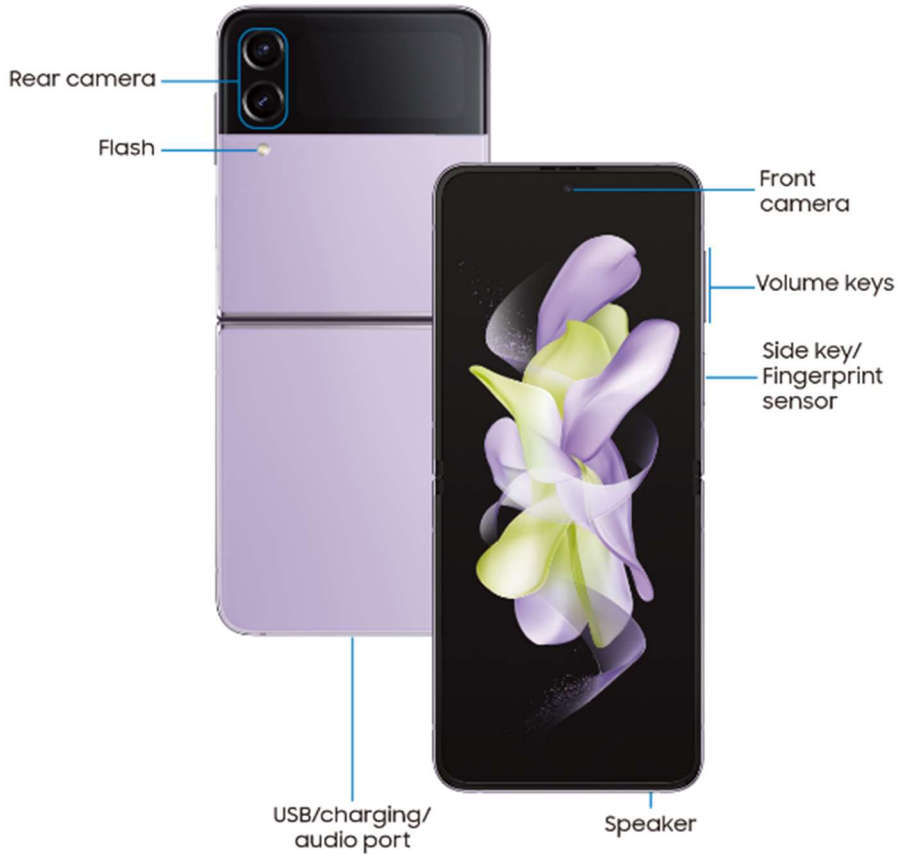
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	identified structure matches the function, way, and result of the claimed element and, to the extent there is a difference, the difference is insubstantial. For example, to the extent that Samsung argues that the Accused Samsung '757 Products does not have a controller performing a second standby process during a second predetermined time when the touch operation instruction includes the second instruction and when the second camera is enabled and the first camera is disabled. Using software, hardware, or combination of the two, the Accused Samsung '757 Products perform substantially the same function (for example, performing a second standby process during a second predetermined time including a second instruction based on touch operation instruction) in substantially the same way as claimed (by using display unit, video processing unit, and/or main control unit). The performance of this function achieve substantially the same result, for example, performing a first standby time based on a command voice instruction.
[11.i] start recording the second image signal acquired by the second camera after the second predetermined time,	Each of the Accused Samsung '757 Products includes a case that the second camera is used for photographing: start recording the second image signal acquired by the second camera after the second predetermined time. *See e.g.*, Technical Specifications of each of the Accused Samsung '757 Products available at Samsung's website showing that each of the devices a case that the second camera is used for photographing: start recording the second image signal acquired by the second camera after the second predetermined time (https://www.samsung.com/us/mobile/ and https://www.samsung.com/us/tablets/). As a non-limiting example of starting recording the second image signal, each of the Accused Samsung '757 Products is a smartphone and/or tablet having one or more processors (chipset) for starting to record a second image signal from the rear facing camera after the second predetermined time. For example, the Accused Samsung '757 Products' one or more processors (chipset) start recording with the second predetermined time setting the second image signal from the rear facing camera to record after a touch operation instruction to record:

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy S23 Ultra 

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	DISPLAY Type: Dynamic AMOLED 2X, 120Hz, HDR10+, 1200 nits (HBM), 1750 nits (peak) Size: 6.8 inches, 114.7 cm^2 (~89.9% screen-to-body ratio) Resolution: 1440 x 3088 pixels, 19.3:9 ratio (~500 ppi density) Protection: Corning Gorilla Glass Victus 2 Always-on display Galaxy S23 Ultra technical specifications; https://downloadcenter.samsung.com/content/UM/202302/20230228053129621/SAM_S911_S916_S918_EN_UM_OS13_020223_FINAL_AC_022023.pdf at 5; https://www.gsmarena.com/samsung_galaxy_s23_ultra-12024.php.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy Z Fold4 

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	DISPLAY Type: Foldable Dynamic AMOLED 2X, 120Hz, HDR10+, 1200 nits (peak) Size: 7.6 inches, 183.2 cm^2 (~90.9% screen-to-body ratio) Resolution: 1812 x 2176 pixels (~373 ppi density) Cover display: Dynamic AMOLED 2X, 120Hz, Corning Gorilla Glass Victus+ 6.2 inches, 904 x 2316 pixels, 23.1:9 ratio Galaxy Z Fold4 technical specification; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/galaxy_z_fold4_d1e605.html; https://www.gsmarena.com/samsung_galaxy_z_fold4-11737.php.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy Z Flip4 

APPENDIX 4: MARCH 7, 2024 INFRINGEMENT CONTENTIONS APPLYING CLAIMS 1–11 OF U.S. PATENT NO. 11,223,757 TO ACCUSED SAMSUNG '757 PRODUCTS

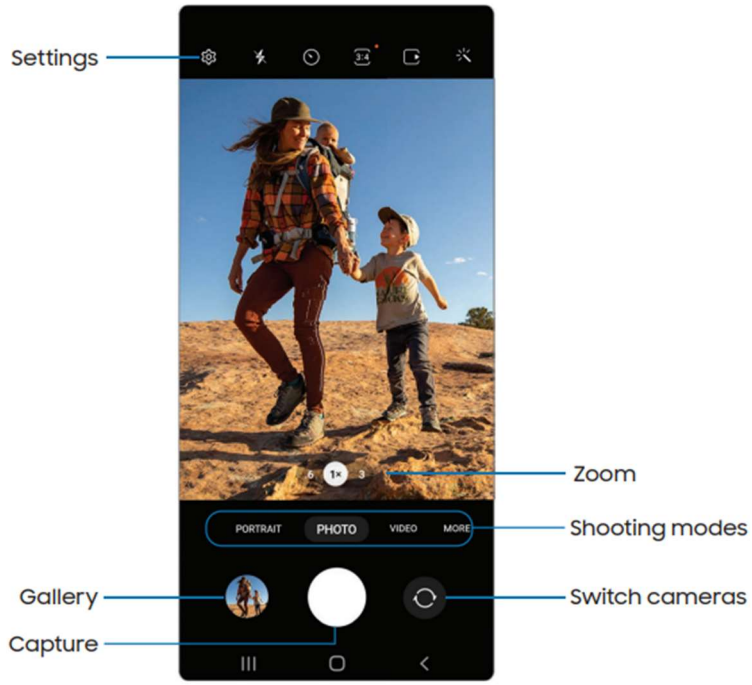
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	DISPLAY Type: Foldable Dynamic AMOLED 2X, 120Hz, HDR10+, 1200 nits (peak) Size: 6.7 inches, 101.5 cm^2 (~85.4% screen-to-body ratio) Resolution: 1080 x 2640 pixels (~426 ppi density) Cover display: Super AMOLED, 1.9 inches, 260 x 512 pixels (Gorilla Glass Victus+) Galaxy Z Flip4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/galaxy_z_flip4_d1e661.html; https://www.gsmarena.com/samsung_galaxy_z_flip4-11538.php.

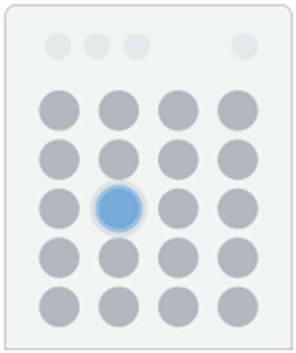
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

Galaxy A54 5G



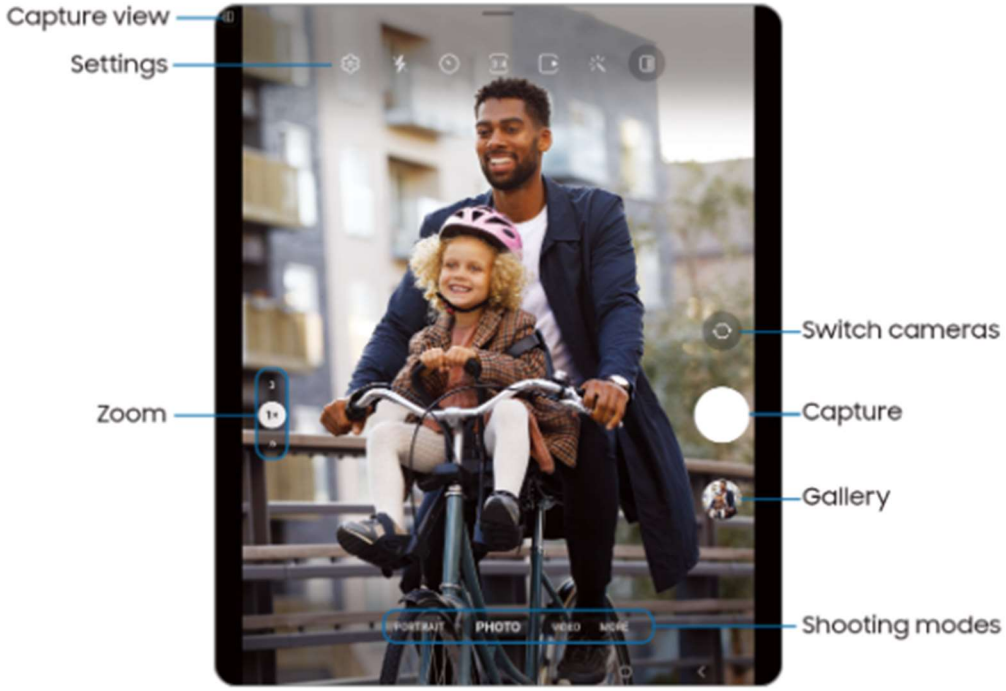
DISPLAY	Type	Super AMOLED, 120Hz, HDR10+, 1000 nits (HBM)
	Size	6.4 inches, 100.5 cm^2 (~82.9% screen-to-body ratio)
	Resolution	1080 x 2340 pixels, 19.5:9 ratio (~403 ppi density)
	Protection	Corning Gorilla Glass 5

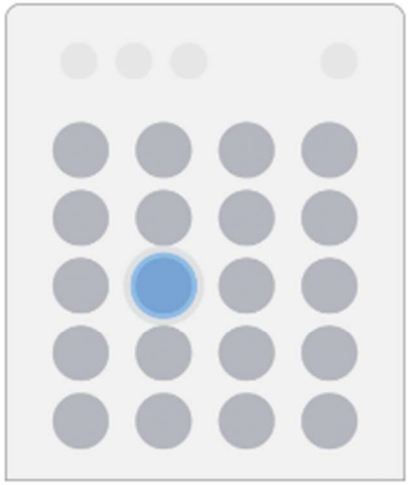
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy A54 5G technical specifications; https://downloadcenter.samsung.com/content/UM/202304/20230407022332214/SAM_A546_EN_UM_OS13_040523_FINAL.pdf at 5; https://www.gsmarena.com/samsung_galaxy_a54-12070.php. Camera Enjoy a full kit of pro lenses and pro-grade video modes and settings. From Apps, tap Camera. TIP Quickly press the Side key twice to open the Camera app. 

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy S23 Ultra technical specification; https://downloadcenter.samsung.com/content/UM/202302/20230228053129621/SAM_S911_S916_S918_EN_UM_OS13_020223_FINAL_AC_022023.pdf at 58. Navigation A touch screen responds best to a light touch from the pad of your finger or a capacitive stylus. Using excessive force or a metallic object on the touch screen may damage the surface of the screen and the damage will not be covered by the warranty. Tap  Lightly touch items to select or launch them. • Tap an item to select it. • Double-tap an image to zoom in or out. *Id.* at 17.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Touch settings You can adjust your screen to be less sensitive to taps and touches. ○ From Settings, tap **Accessibility** > **Interaction and dexterity** and tap an option: • **Touch and hold delay**: Select a time interval for this action. • **Tap duration**: Set how long an interaction must be held to be recognized as a tap. • **Ignore repeated touches**: Set a time duration in which to ignore repeated touches. *Id.* at 171.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Navigate the camera screen Take stunning pictures with your device's front and rear cameras. 1. From Camera, set up your shot with the following features: • Tap the screen where you want the camera to focus. – When you tap the screen, a brightness scale appears. Drag the slider to adjust the brightness. • To quickly switch between the front and rear cameras, swipe the screen up or down. • To zoom at a precise level, tap 1x and tap an option at the bottom of the screen. (Only available when using the rear camera.) • To change to a different shooting mode, swipe the screen right or left. • To change camera settings, tap Settings. 2. Tap Capture. *Id.* at 59.

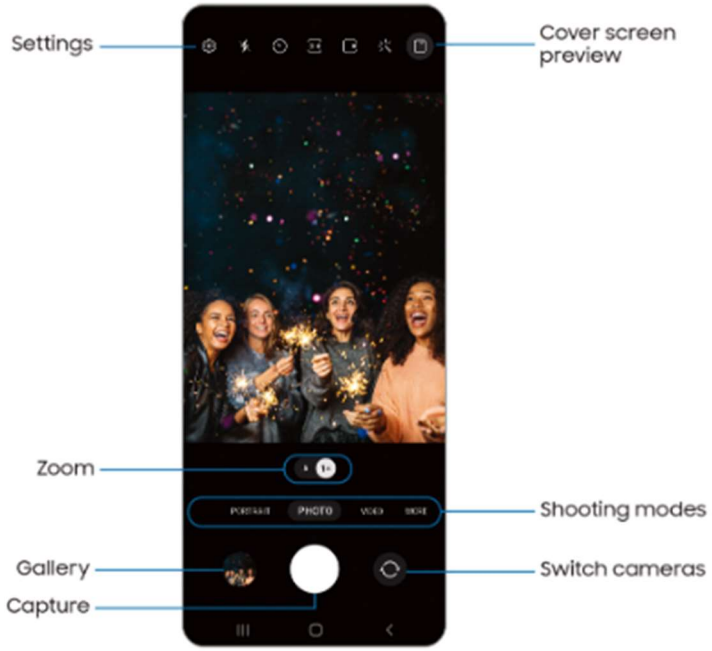
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy Z Fold4 Camera features  **Capture and view** View the pictures and videos you capture while still using your camera. Images will be shown on the side panel until the Camera app is closed. This feature is only available when the device is open. ○ From Camera, tap Capture View. Galaxy Z Fold4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/galaxy_z_fold4_camera_features_d1e3185.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Navigation A touch screen responds best to a light touch from the pad of your finger or a capacitive stylus. Using excessive force or a metallic object on the touch screen may damage the surface of the screen and the damage will not be covered by the warranty. Tap  Lightly touch items to select or launch them. • Tap an item to select it. • Double-tap an image to zoom in or out. Galaxy Z Fold4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/navigation_d1e1242.html.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Touch settings You can adjust your screen to be less sensitive to taps and touches. ○ From Settings, tap **Accessibility** > **Interaction and dexterity** and tap an option: • **Touch and hold delay**: Select a time interval for this action. • **Tap duration**: Set how long an interaction must be held to be recognized as a tap. • **Ignore repeated touches**: Set a time duration in which to ignore repeated touches. Galaxy Z Fold4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/interaction_and_dexterity_d1e11982.html#d1e13816. **Navigate the camera screen** Take stunning pictures with your device's front and rear cameras. 1. From **Camera**, set up your shot with the following features: • Tap the screen where you want the camera to focus. - When you tap the screen, a brightness scale appears. Drag the slider to adjust the brightness. • To quickly switch between the front and rear cameras, swipe the screen up or down. • To zoom at a precise level, tap **1x** and tap an option at the bottom of the screen. (Only available when using the rear camera.) • To change to a different shooting mode, swipe the screen right or left. • To change camera settings, tap **Settings**. 2. Tap **Capture**. Galaxy Z Fold4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/navigate_the_camera_screen_d1e3147.html.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

Galaxy Z Flip4 Camera features

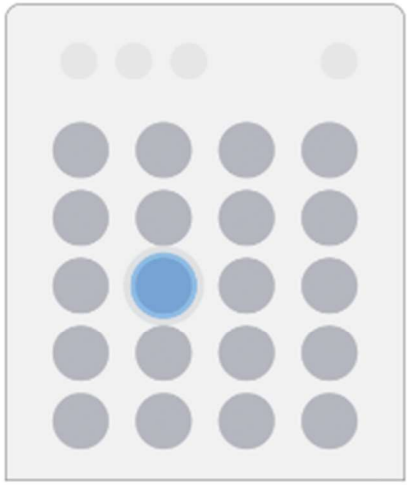


Selfies in Flex mode

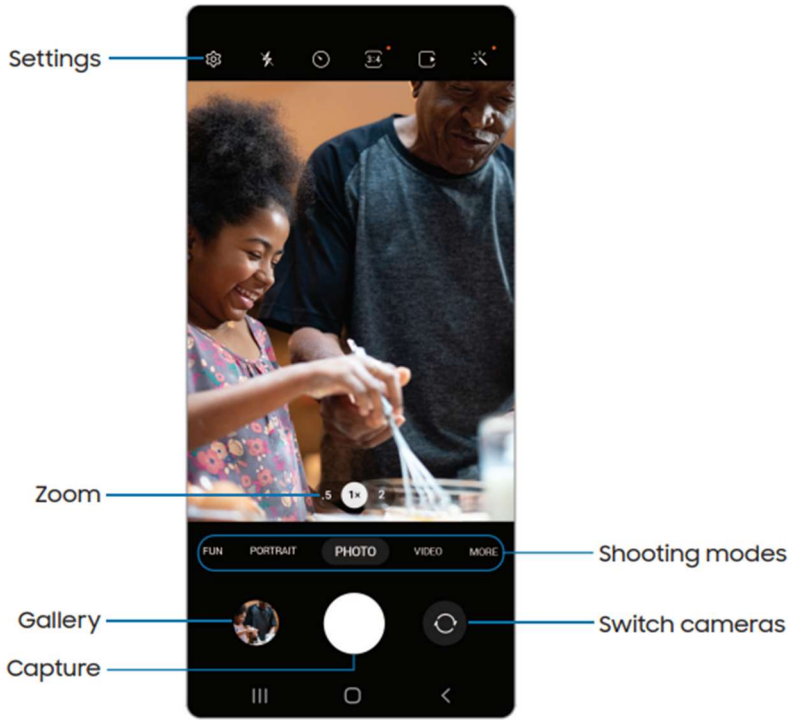
Use your camera in Flex mode for hands-free selfies.

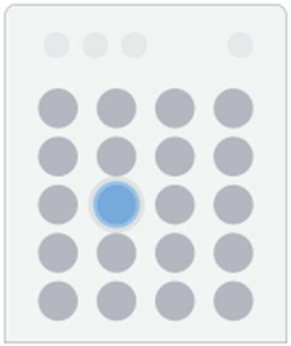
1. Place your phone on a flat surface in table top view.
2. From **Camera**, tap **Portrait**.
3. Tap or to move the camera preview to the top or bottom half of the screen.

Galaxy Z Flip4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/galaxy_z_flip4_camera_features_d1e3206.html.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Navigation A touch screen responds best to a light touch from the pad of your finger or a capacitive stylus. Using excessive force or a metallic object on the touch screen may damage the surface of the screen and the damage will not be covered by the warranty. Tap  Lightly touch items to select or launch them. • Tap an item to select it. • Double-tap an image to zoom in or out. Galaxy Z Flip4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/navigation_d1e1242.html.

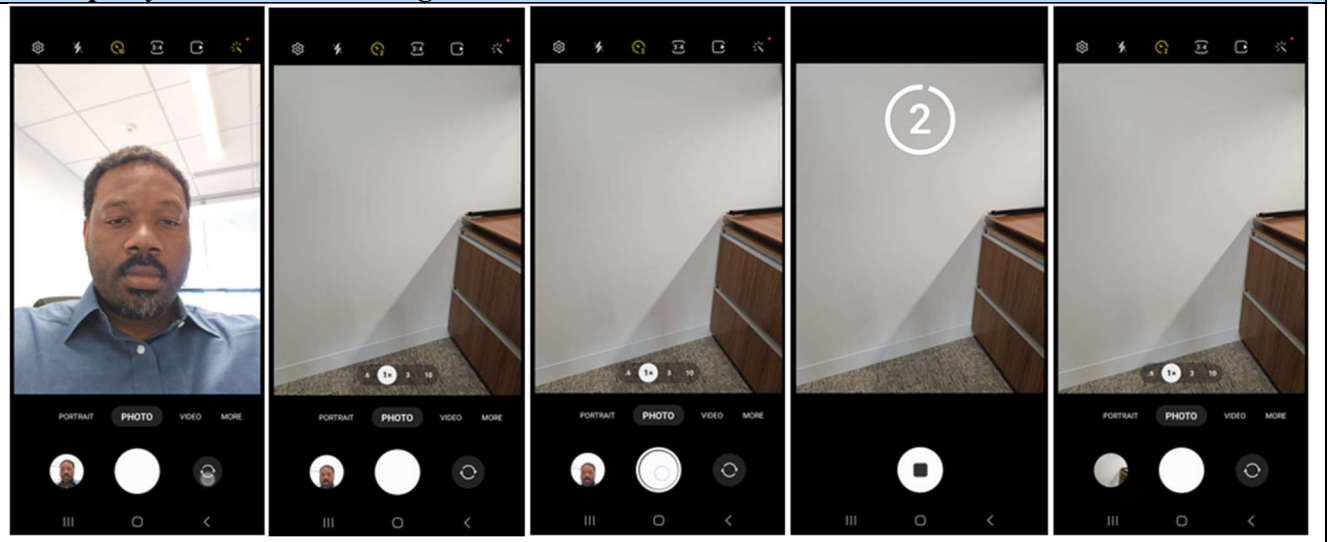
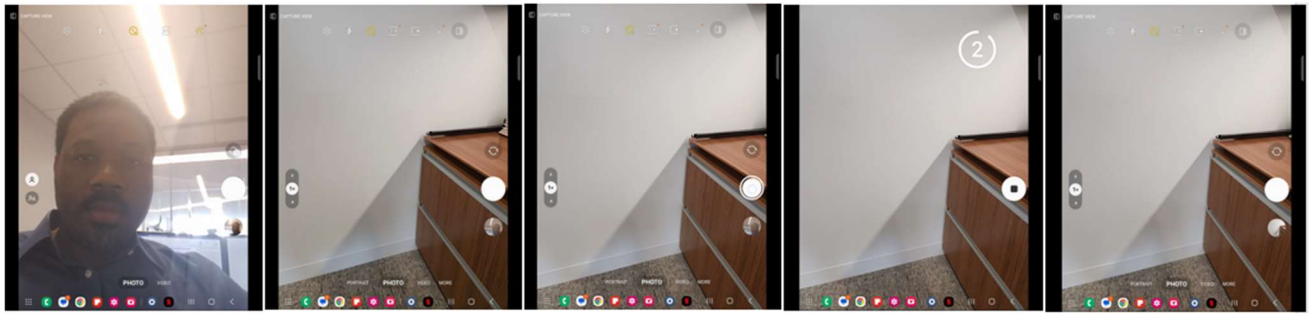
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Touch settings You can adjust your screen to be less sensitive to taps and touches. ○ From Settings, tap **Accessibility** > **Interaction and dexterity** and tap an option: • **Touch and hold delay**: Select a time interval for this action. • **Tap duration**: Set how long an interaction must be held to be recognized as a tap. • **Ignore repeated touches**: Set a time duration in which to ignore repeated touches. Galaxy Z Flip4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/interaction_and_dexterity_d1e11982.html#d1e13816. **Navigate the camera screen** Take stunning pictures with your device's front and rear cameras. 1. From **Camera**, set up your shot with the following features: • Tap the screen where you want the camera to focus. - When you tap the screen, a brightness scale appears. Drag the slider to adjust the brightness. • To quickly switch between the front and rear cameras, swipe the screen up or down. • To zoom at a precise level, tap **1x** and tap an option at the bottom of the screen. (Only available when using the rear camera.) • To change to a different shooting mode, swipe the screen right or left. • To change camera settings, tap **Settings**. 2. Tap **Capture**. Galaxy Z Flip4 technical specifications; https://downloadcenter.samsung.com/content/PM/202303/20230313225909630/EB/SAM_F936_F721_EN_FINAL_230201/navigate_the_camera_screen_d1e3147.html.

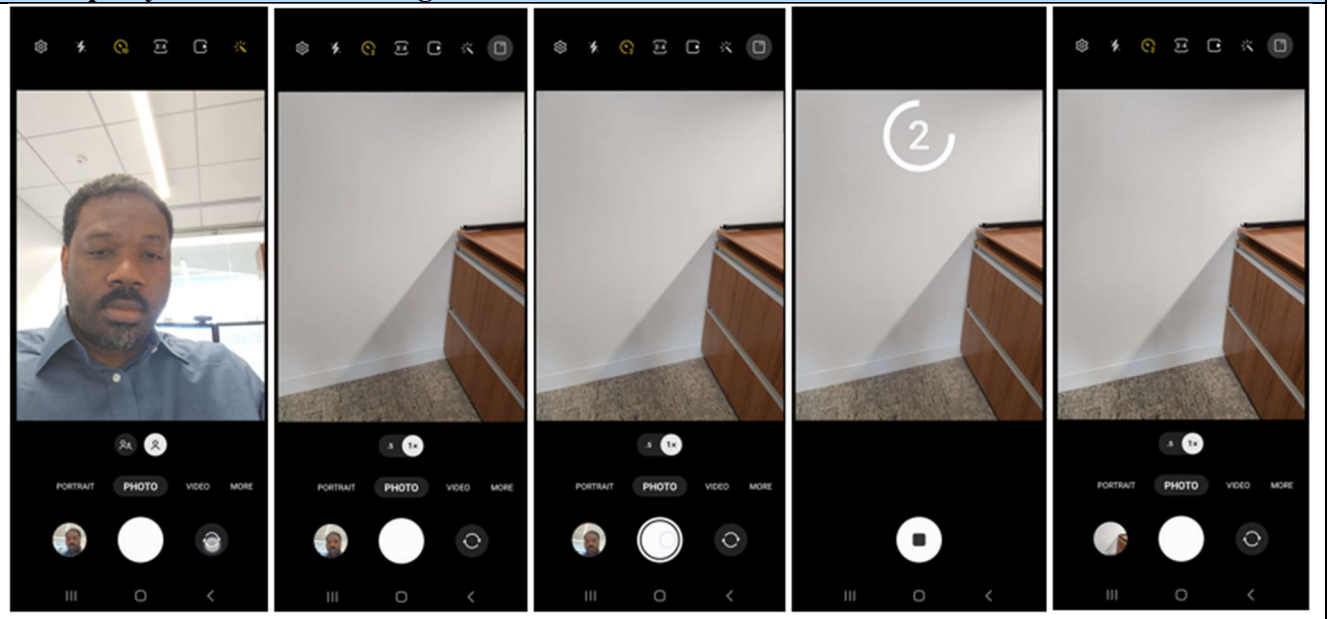
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Camera Enjoy a full kit of pro lenses and pro-grade video modes and settings. ○ From Apps, tap Camera. TIP Quickly press the Side key twice to open the Camera app.  Galaxy A54 5G technical specifications; https://downloadcenter.samsung.com/content/UM/202304/20230407022332214/SAM_A546_EN_UM_OS13_040523_FINAL.pdf at 40.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Navigation A touch screen responds best to a light touch from the pad of your finger or a capacitive stylus. Using excessive force or a metallic object on the touch screen may damage the surface of the screen and the damage will not be covered by the warranty. Tap  Lightly touch items to select or launch them. • Tap an item to select it. • Double-tap an image to zoom in or out. *Id.* at 12.

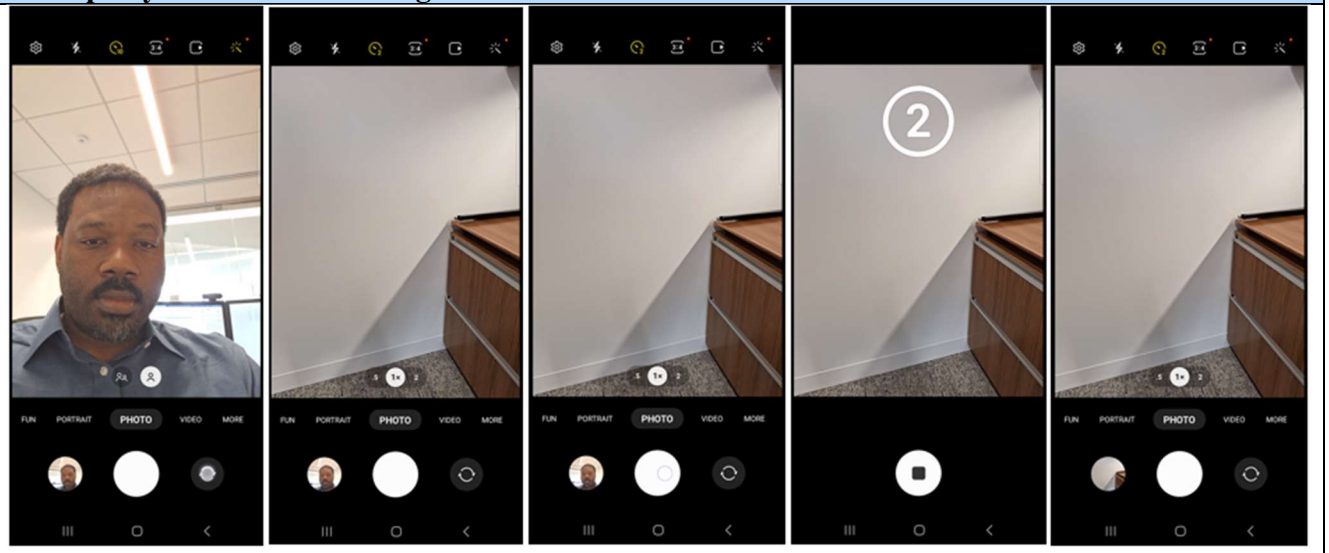
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Touch settings You can adjust your screen to be less sensitive to taps and touches. ○ From Settings, tap **Accessibility** > **Interaction and dexterity** and tap an option: • **Touch and hold delay**: Select a time interval for this action. • **Tap duration**: Set how long an interaction must be held to be recognized as a tap. • **Ignore repeated touches**: Set a time duration in which to ignore repeated touches. *Id.* at 154.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Navigate the camera screen Take stunning pictures with your device's front and rear cameras. 1. From **Camera**, set up your shot with the following features: • Tap the screen where you want the camera to focus. – When you tap the screen, a brightness scale appears. Drag the slider to adjust the brightness. • To quickly switch between the front and rear cameras, swipe the screen up or down. • To zoom at a precise level, tap **1x** and tap an option at the bottom of the screen. (Only available when using the rear camera.) • To change to a different shooting mode, swipe the screen right or left. • To change camera settings, tap **Settings**. 2. Tap **Capture**. *Id.* at 41.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy S23 Ultra annotated figures showing the second predetermined time being associated with touch operation instruction.  Galaxy Z Fold4 annotated figures showing the second predetermined time being associated with touch operation instruction.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy Z Flip4 annotated figures showing the second predetermined time being associated with touch operation instruction.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

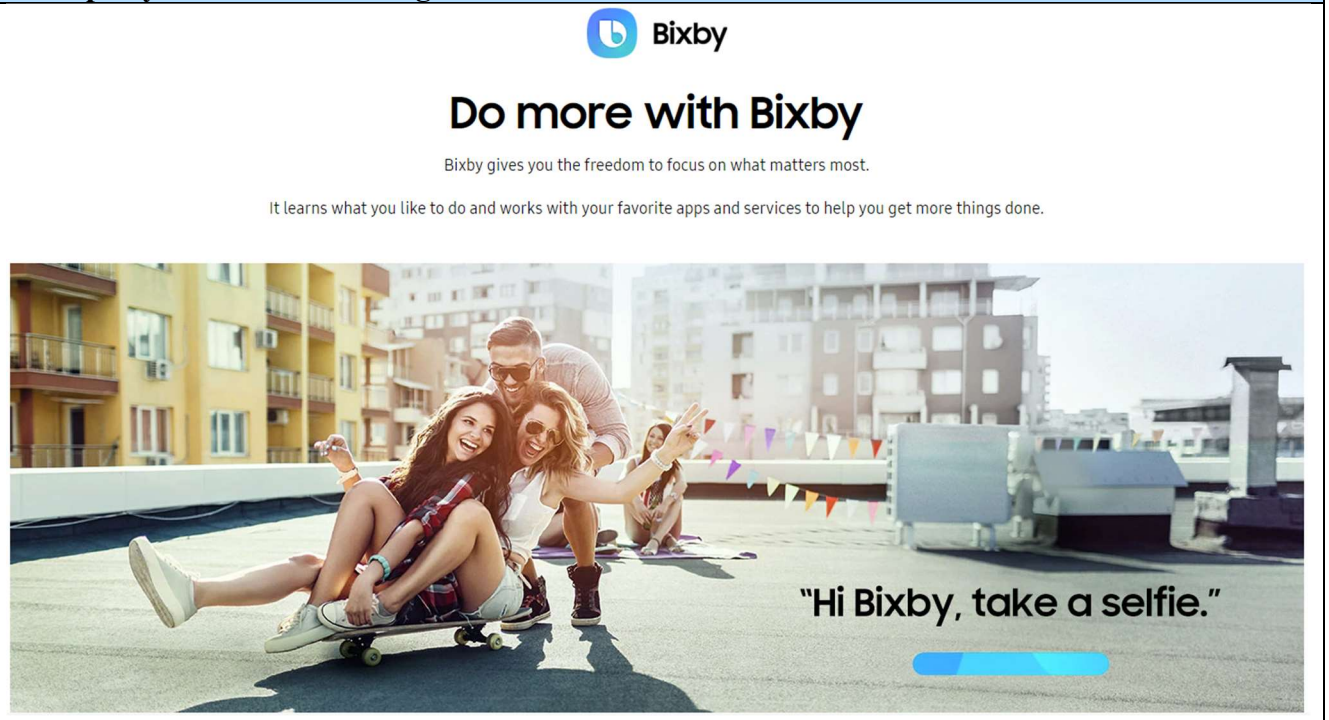


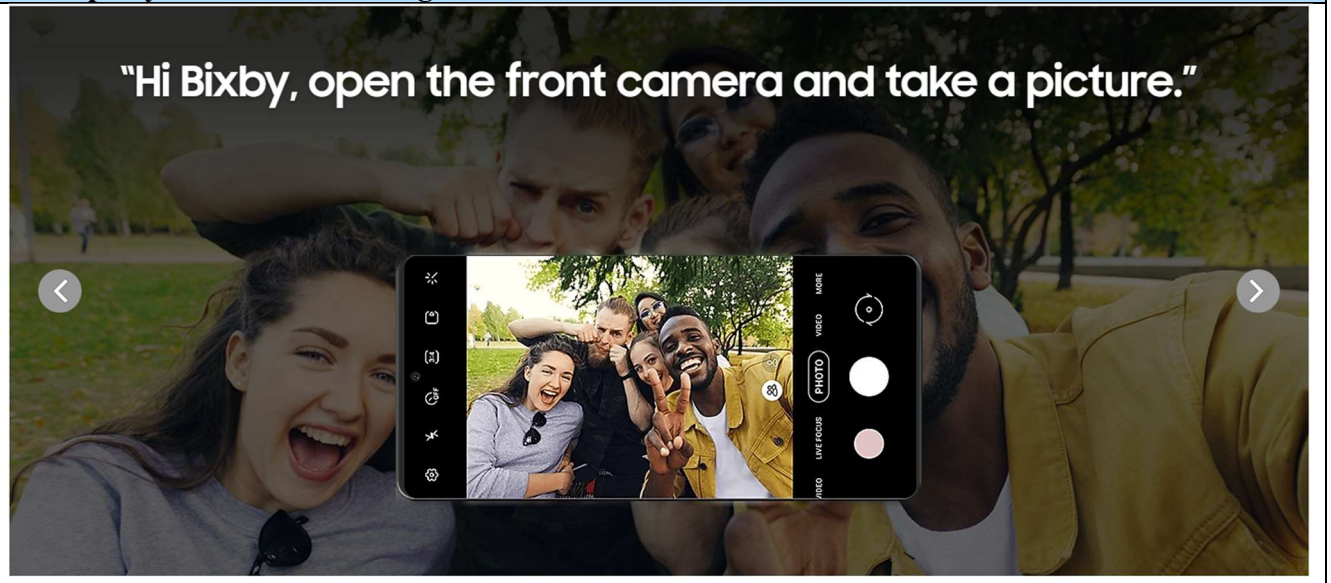
Galaxy A54 5G annotated figures showing the second predetermined time being associated with touch operation instruction.

See also Appendix 8 showing that the remaining Accused Samsung '757 Products include one or more processors (chipset) start recording the second image signal acquired by the second camera after the second predetermined time. Specifically, the remaining Accused Samsung '757 Products also include one or more processors (chipset), a rear facing camera, and touch screen display for recording a still-image from the rear facing camera using a second predetermined time as shown in the above examples. *See e.g.*, https://www.samsung.com/us/support/answer/ANS00089063/; *see also* https://www.samsung.com/us/apps/bixby/.

Doctrine of Equivalents:
To the extent Samsung argues that this limitation is not literally met in the Accused Samsung '757 Products, Maxell asserts that this limitation is met under the doctrine of equivalents because the identified structure matches the function, way, and result of the claimed element and, to the extent there is a difference, the difference is insubstantial. For example, to the extent that Samsung argues that the Accused Samsung '757 Products does not have a recorder for recording the second image signal acquired by the second camera after the second predetermined time. Using software,

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	hardware, or combination of the two, the Accused Samsung '757 Products perform substantially the same function (for example, recording of the second image signal after a second predetermined time) in substantially the same way as claimed (by using video signal processing unit, video processing unit, and/or main control). The performance of this function achieve substantially the same result, for example, recording videos from the second camera after a second predetermined time.
[11.j] wherein the first predetermined time is set to be longer than the second predetermined time, and	In each of the Accused Samsung '757 Products, the first predetermined time is set to be longer than the second predetermined time. *See e.g.*, Technical Specifications of each of the Accused Samsung '757 Products available at Samsung's website showing that each of the devices' first predetermined time is set to be longer than the second predetermined time (https://www.samsung.com/us/mobile/ and https://www.samsung.com/us/tablets/). As a non-limiting example of the controller, each of the Accused Samsung '757 Products is a smartphone and/or tablet having the first predetermined time set to be longer than the second predetermined time. For example, the Accused Samsung '757 Products' first predetermined time associated with the front facing camera is longer than the second predetermined time associated with the rear facing camera under three (3) exemplary infringement theories:

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	 https://www.samsung.com/us/apps/bixby/

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	 *Id.*

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Take the best selfies with your Galaxy phone  Selfies: you know you love 'em. Luckily, your Galaxy phone comes with special features like a front-facing camera, built-in filters, and different camera modes so you can take the best possible selfies. **Note:** Available screens and settings may vary by wireless service provider, software version, and phone model. Set up for the perfect selfie › Adjust selfie camera settings › Camera modes › https://www.samsung.com/us/support/answer/ANS00062594/

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

Adjust selfie camera settings

You can also adjust the different settings for your selfies, such as your preferred shooting method, selfie colors, and filters.

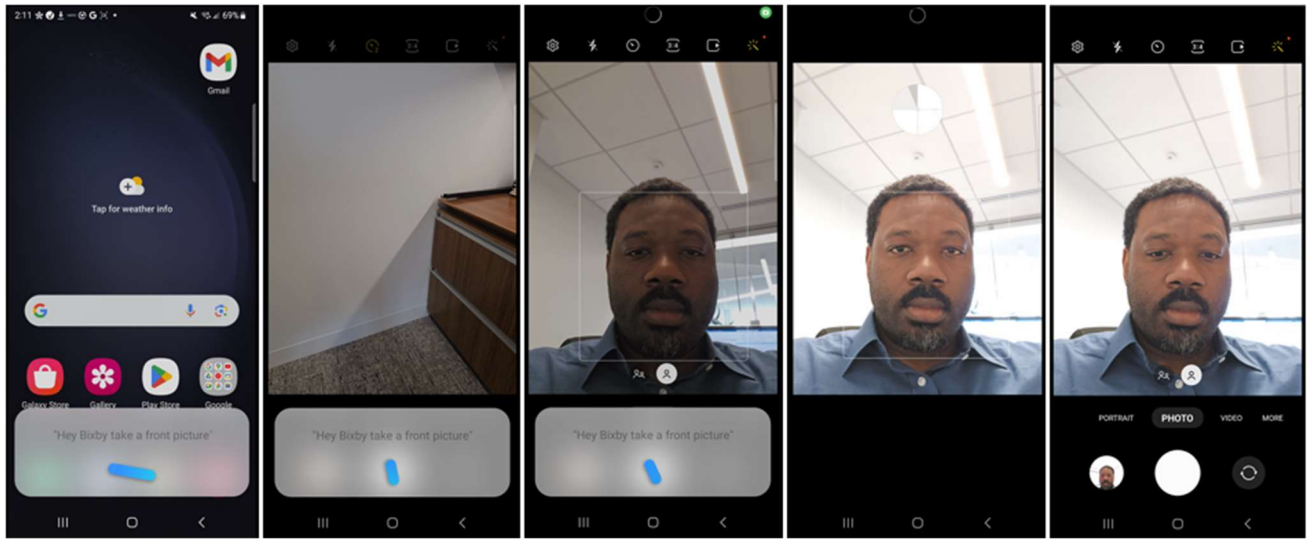
For example, you can set the color tone of your photos to bright or natural. Just navigate to the **Camera** app on your phone, tap **Settings**, and then swipe to and tap **Selfie color tone**. This way, you can select from **Natural** or **Bright** before you take a selfie, rather than after.

Snapping a photo of yourself can be easy, especially if you do not have to adjust the grip on your phone. Better shooting methods can be accessed from your Camera settings page. Swipe to and tap **Shooting methods**, and then tap **Press Volume keys to** or **Voice commands** to take a photo or video. Or, add a floating shutter button that can be moved around the screen. If you're taking a group selfie, it might be easier to simply show your palm to the screen to take the photo.

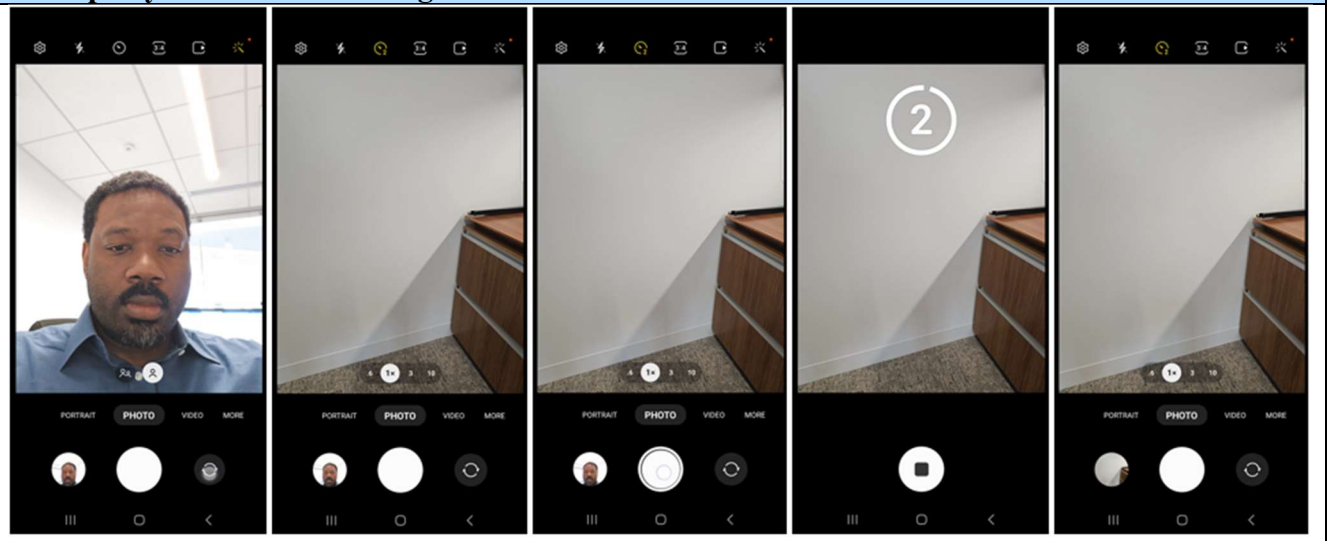


You can also set up automatic Camera modes that appear when launching the app. Tap **Settings to keep**, and then tap **Selfie angle** to use your previous angle again or tap **Filters** to reapply the same filters you have applied in the past. You can also select additional options such as Camera mode, Super steady, and Portrait zoom.

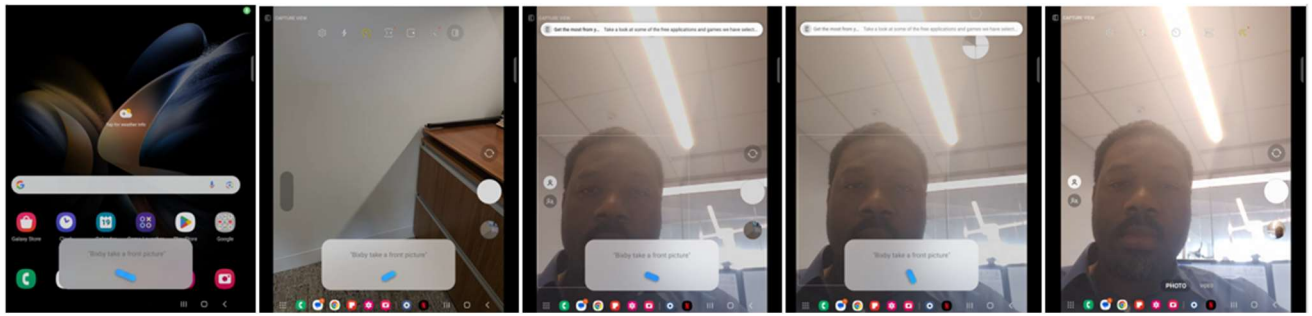
Id.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	First Infringement Theory:  Galaxy S23 Ultra annotated figures showing a first predetermined time associated with the front facing camera being longer than a second standby time associated with the rear facing camera. For example, the rear facing camera is disabled after a user provides a command voice to Bixby to take a front facing picture, which enables the front facing camera as evidenced by the display displaying image signals from the front facing camera after switching from the rear camera to the front camera.

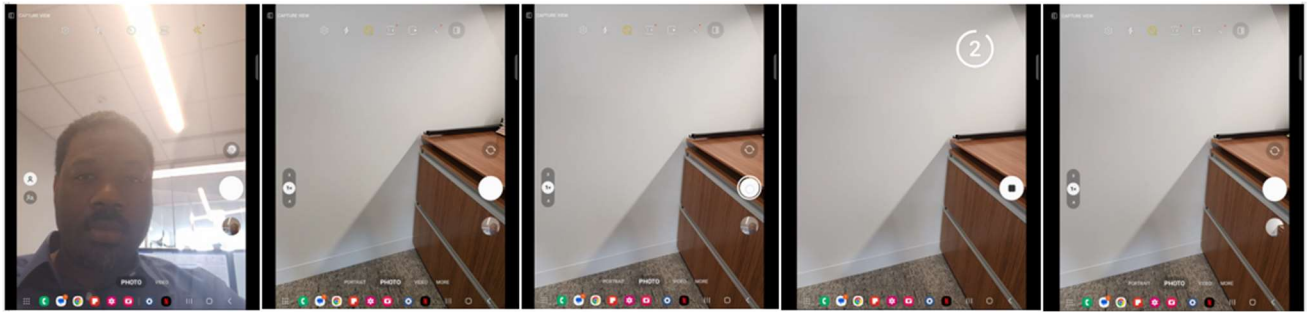
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

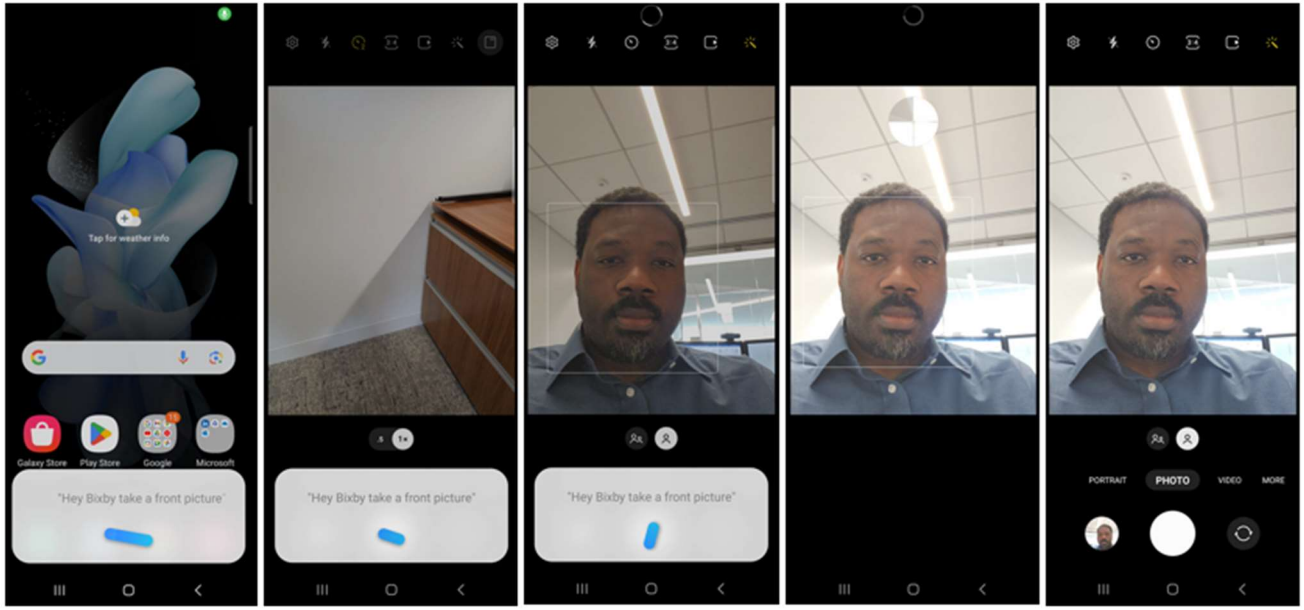


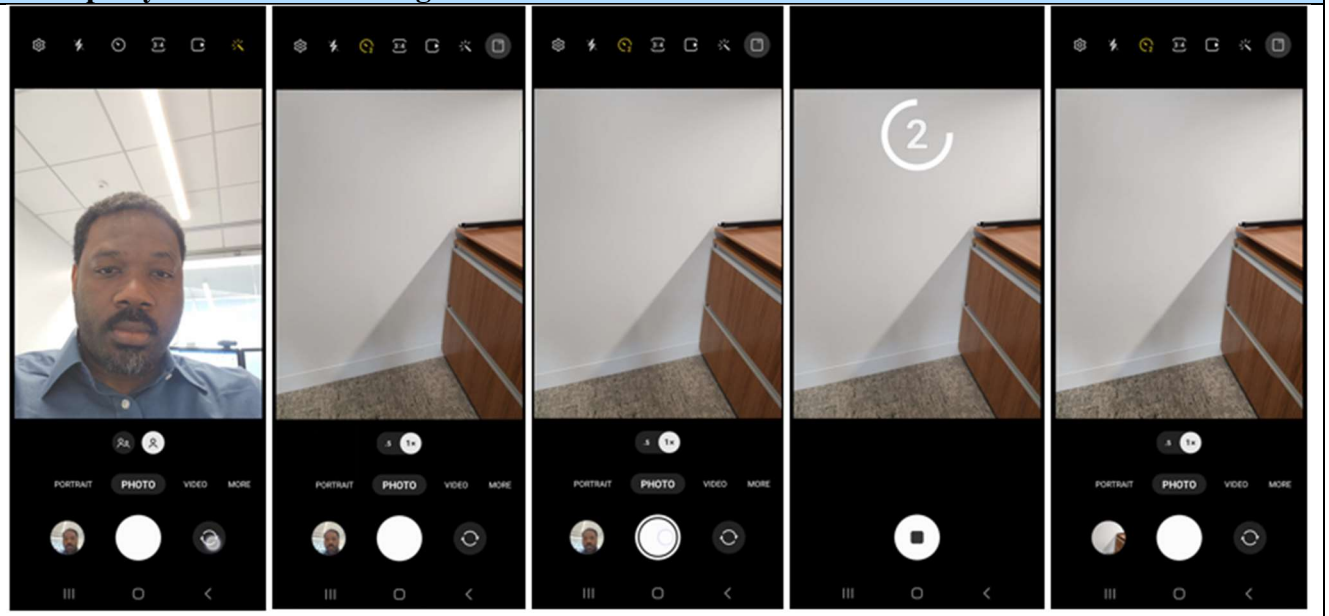
In contrast, the second predetermined time is shorter as the front facing camera is disabled after a user provides a touch operation instruction to use the rear facing camera and take a rear facing picture via the touch interface. This will enable the rear facing camera as evidenced by the display displaying image signals from the rear facing camera.

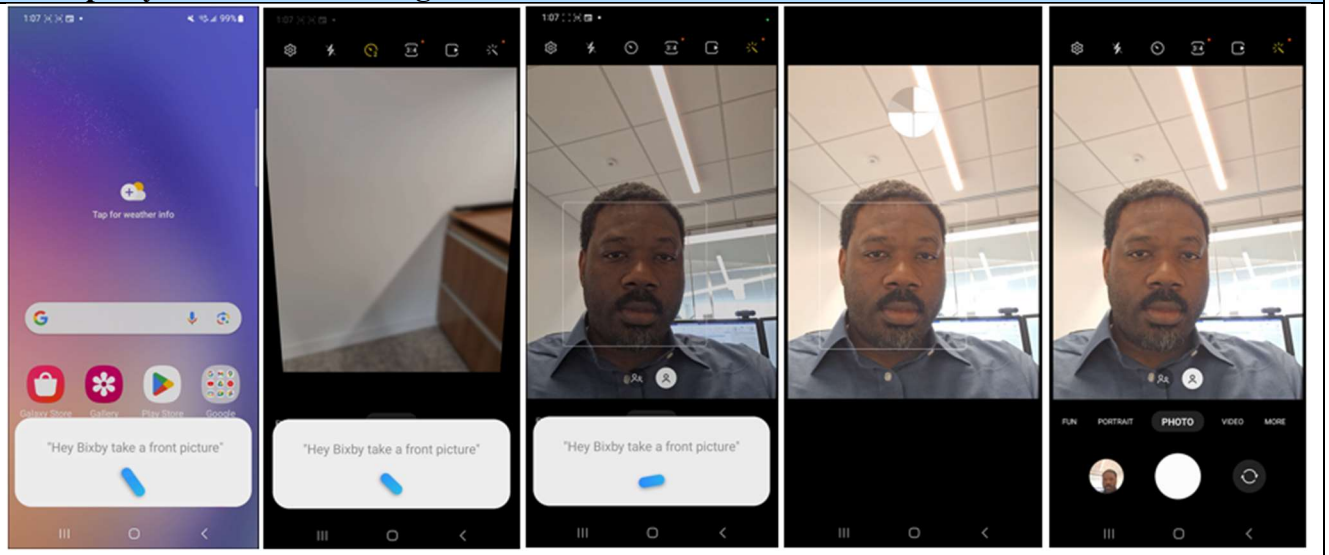


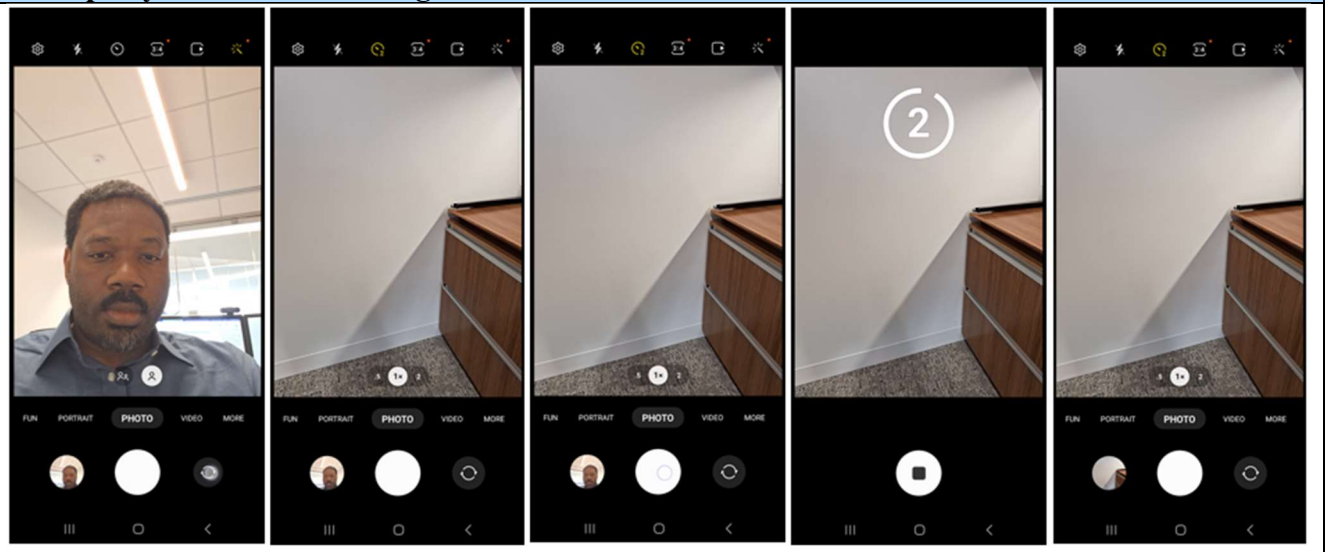
Galaxy Z Fold4 annotated figures showing a first predetermined time associated with the front facing camera being longer than a second standby time associated with the rear facing camera. For example, the rear facing camera is disabled after a user provides a command voice to Bixby to take a

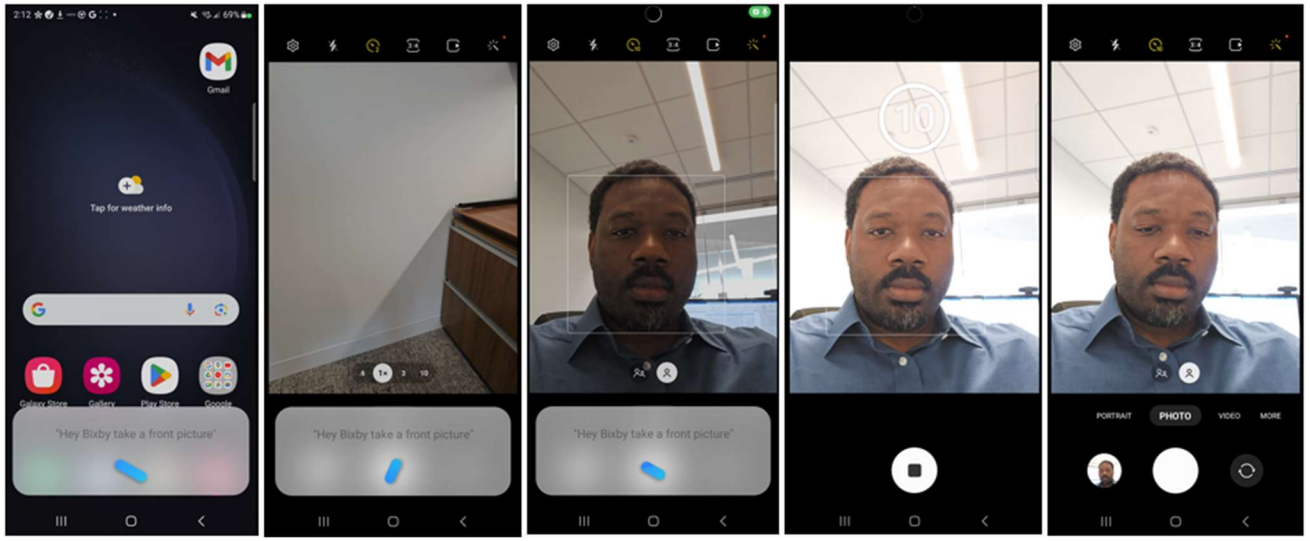
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	front facing picture, which enables the front facing camera as evidenced by the display displaying image signals from the front facing camera after switching from the rear camera to the front camera.  In contrast, the second predetermined time is shorter as the front facing camera is disabled after a user provides a touch operation instruction to use the rear facing camera and take a rear facing picture via the touch interface. This will enable the rear facing camera as evidenced by the display displaying image signals from the rear facing camera.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy Z Flip4 annotated figures showing a first predetermined time associated with the front facing camera being longer than a second standby time associated with the rear facing camera. For example, the rear facing camera is disabled after a user provides a command voice to Bixby to take a front facing picture, which enables the front facing camera as evidenced by the display displaying image signals from the front facing camera after switching from the rear camera to the front camera.

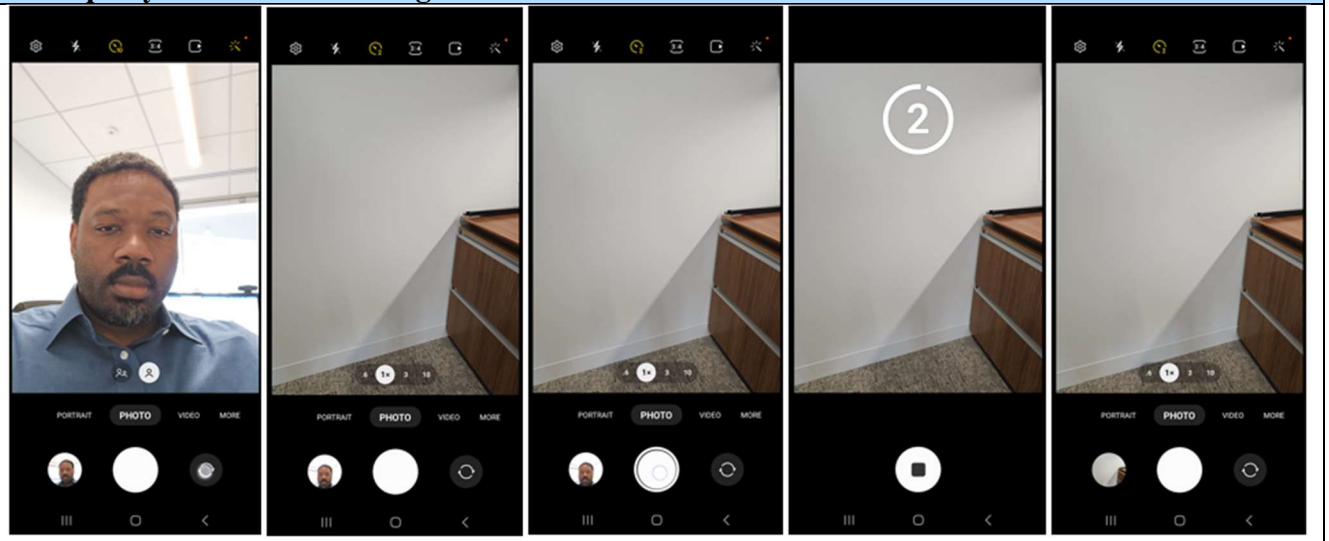
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 In contrast, the second predetermined time is shorter as the front facing camera is disabled after a user provides a touch operation instruction to use the rear facing camera and take a rear facing picture via the touch interface. This will enable the rear facing camera as evidenced by the display displaying image signals from the rear facing camera.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy A54 5G annotated figures showing a first predetermined time associated with the front facing camera being longer than a second standby time associated with the rear facing camera. For example, the rear facing camera is disabled after a user provides a command voice to Bixby to take a front facing picture, which enables the front facing camera as evidenced by the display displaying image signals from the front facing camera after switching from the rear camera to the front camera.

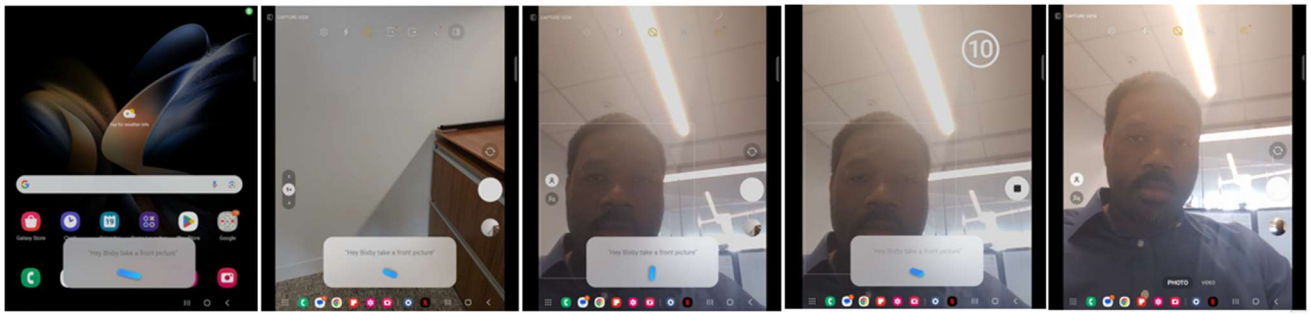
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 In contrast, the second predetermined time is shorter as the front facing camera is disabled after a user provides a touch operation instruction to use the rear facing camera and take a rear facing picture via the touch interface. This will enable the rear facing camera as evidenced by the display displaying image signals from the rear facing camera.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Second Infringement Theory:  Galaxy S23 Ultra annotated figures showing a first predetermined time associated with the front facing camera being longer than a second standby time associated with the rear facing camera. For example, the user sets a timer of 10 second for the front facing camera. In addition, the rear facing camera is disabled after a user provides a command voice to Bixby to take a front facing picture, which enables the front facing camera as evidenced by the display displaying image signals from the front facing camera after switching from the rear camera to the front camera.

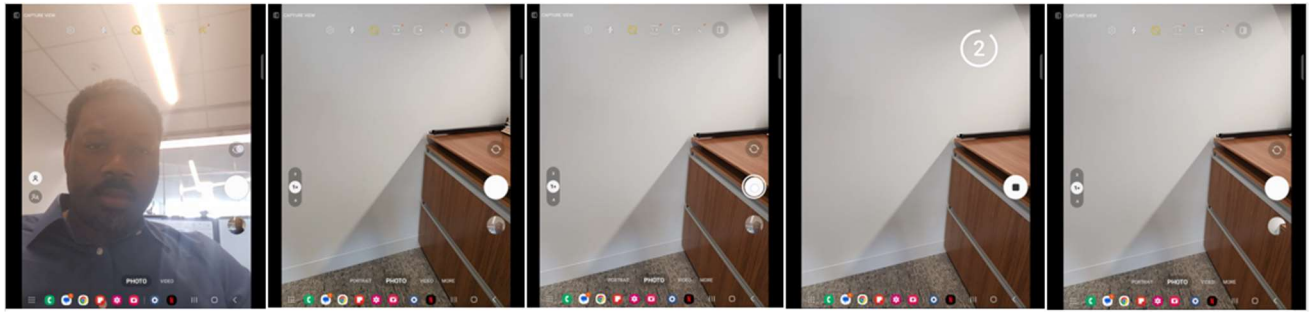
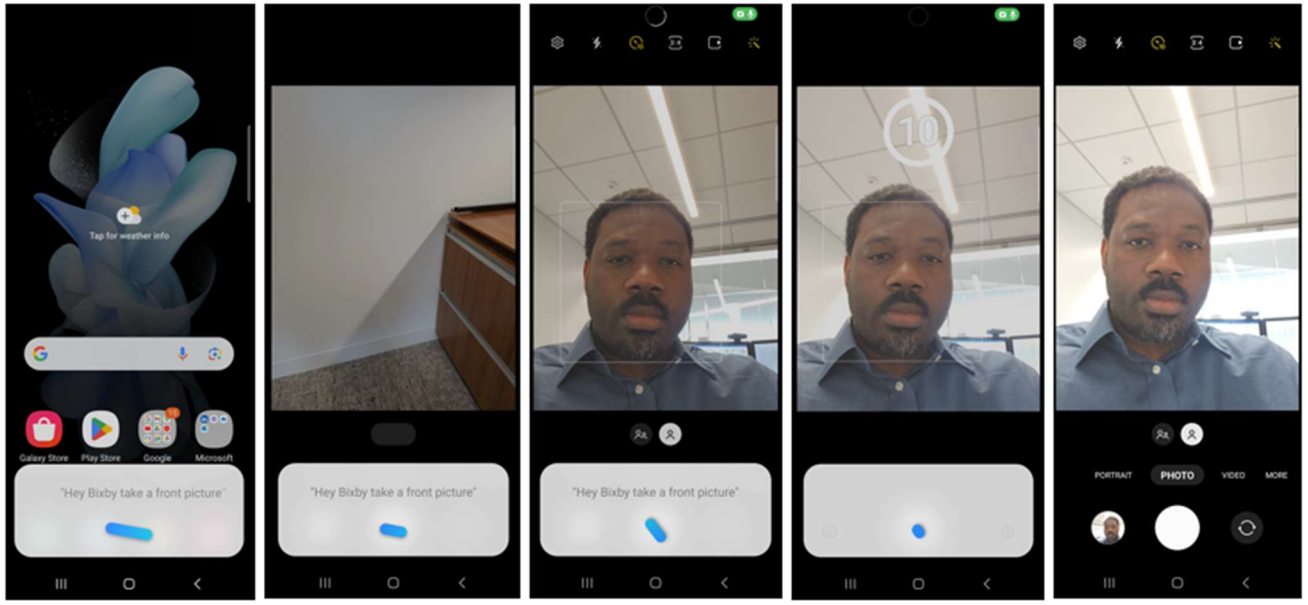
U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement

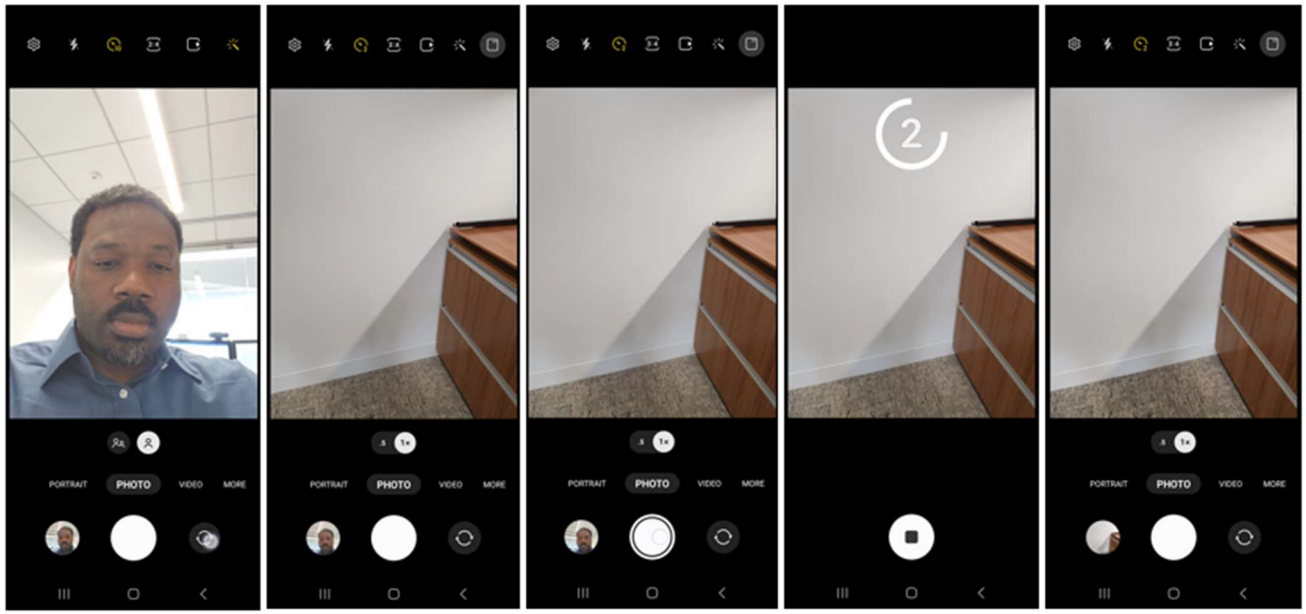


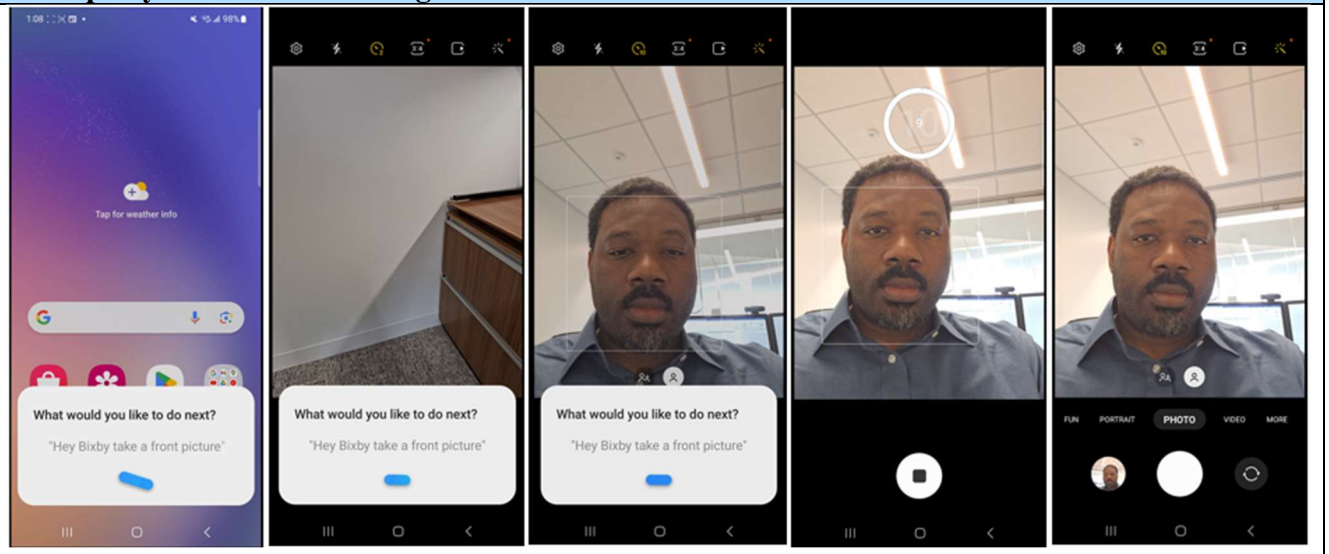
In contrast, the second predetermined time is shorter as the front facing camera is disabled after a user provides a touch operation instruction to use the rear facing camera and take a rear facing picture via the touch interface. This will enable the rear facing camera as evidenced by the display displaying image signals from the rear facing camera.

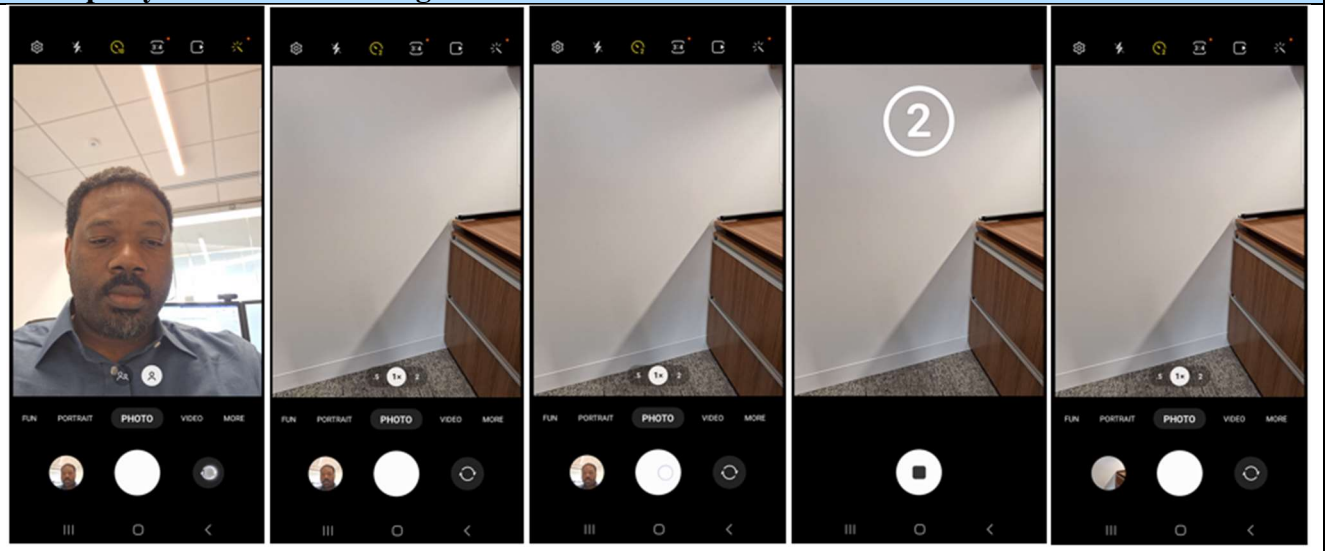


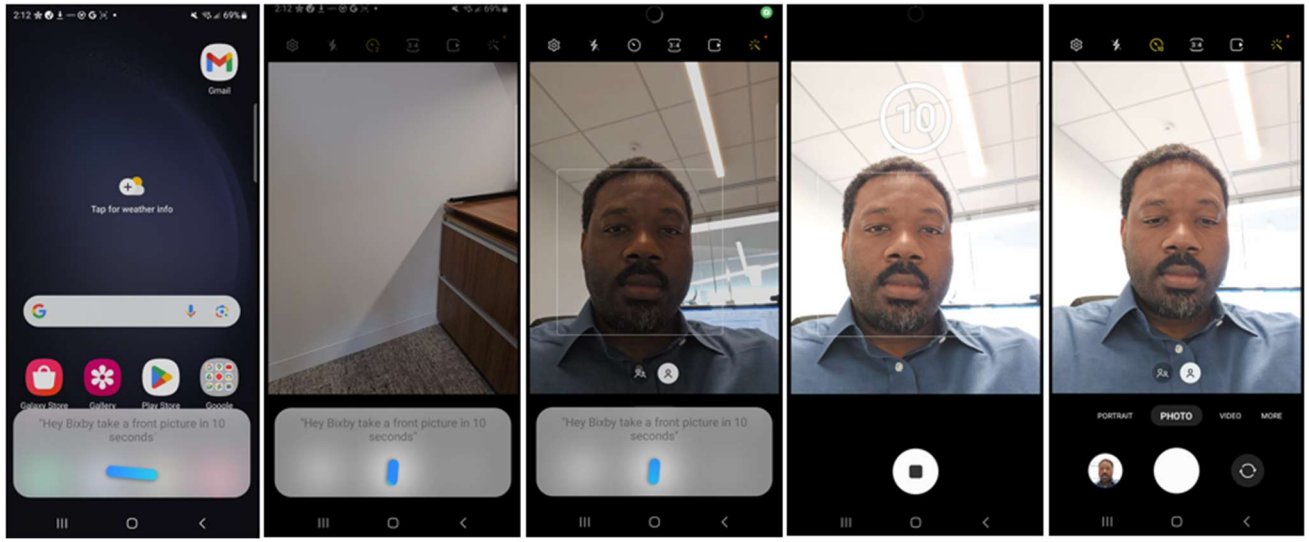
Galaxy Z Fold4 annotated figures showing a first predetermined time associated with the front facing camera being longer than a second standby time associated with the rear facing camera. For example, the user sets a timer of 10 second for the front facing camera. In addition, the rear facing camera is disabled after a user provides a command voice to Bixby to take a front facing picture,

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	which enables the front facing camera as evidenced by the display displaying image signals from the front facing camera after switching from the rear camera to the front camera.  In contrast, the second predetermined time is shorter as the front facing camera is disabled after a user provides a touch operation instruction to use the rear facing camera and take a rear facing picture via the touch interface. This will enable the rear facing camera as evidenced by the display displaying image signals from the rear facing camera. 

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Galaxy Z Flip4 annotated figures showing a first predetermined time associated with the front facing camera being longer than a second standby time associated with the rear facing camera. For example, the user sets a timer of 10 second for the front facing camera. In addition, the rear facing camera is disabled after a user provides a command voice to Bixby to take a front facing picture, which enables the front facing camera as evidenced by the display displaying image signals from the front facing camera after switching from the rear camera to the front camera.  In contrast, the second predetermined time is shorter as the front facing camera is disabled after a user provides a touch operation instruction to use the rear facing camera and take a rear facing picture via the touch interface. This will enable the rear facing camera as evidenced by the display displaying image signals from the rear facing camera.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 Galaxy A54 5G annotated figures showing a first predetermined time associated with the front facing camera being longer than a second standby time associated with the rear facing camera. For example, the user sets a timer of 10 second for the front facing camera. In addition, the rear facing camera is disabled after a user provides a command voice to Bixby to take a front facing picture, which enables the front facing camera as evidenced by the display displaying image signals from the front facing camera after switching from the rear camera to the front camera.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	 In contrast, the second predetermined time is shorter as the front facing camera is disabled after a user provides a touch operation instruction to use the rear facing camera and take a rear facing picture via the touch interface. This will enable the rear facing camera as evidenced by the display displaying image signals from the rear facing camera.

U.S. Patent No. 11,223,757	Exemplary Evidence of Infringement
	Third Infringement Theory:  Galaxy S23 Ultra annotated figures showing a first predetermined time associated with the front facing camera being longer than a second standby time associated with the rear facing camera. For example, the rear facing camera is disabled after a user provides a command voice to Bixby to take a front facing picture after 10 seconds, which enables the front facing camera as evidenced by the display displaying image signals from the front facing camera after switching from the rear camera to the front camera.