

NVIDIA SHIELD TABLET K1

USER GUIDE 1.0

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Introduction

ABOUT SHIELD TABLET K1

Thank you for choosing the NVIDIA® SHIELD™ tablet K1.

Your NVIDIA device is powered by the NVIDIA Tegra™ K1 mobile processor and the Google Android operating system. The included apps take full advantage of the NVIDIA Tegra K1's Kepler™ graphics core.

Your NVIDIA SHIELD tablet K1 also comes with several additional apps so you can get started right away -- surf the web, check your e-mail, take pictures, play games, and more.

NVIDIA Apps

NVIDIA Dabblor

NVIDIA Dabblor™ is a drawing and painting app that provides watercolor, oil painting, and sketching capabilities. For more information, see [How to Use NVIDIA Dabblor](#).

NVIDIA Lasso Capture

NVIDIA Lasso Capture app provides a quick and easy way to take screenshots of all or part of your screen. You can also annotate and share the captures.

For more information, see [How to Use NVIDIA Lasso Capture](#).

NVIDIA SHIELD Hub

The NVIDIA SHIELD Hub is the place to find Android and PC games that are optimized for your SHIELD devices, providing a console-quality gaming experience wherever you are. Read professional game reviews and view high-resolution screenshots, HD videos, and behind-the-scenes footage. For more information, see [How to Find Games and Gaming News](#).

Additional Apps

SHIELD Camera

SHIELD Camera is a powerful application that takes advantage of Tegra K1's hardware acceleration capabilities. It provides slow-motion video, enhanced HDR, and integrated stylus support in addition to a number of shooting and editing features. To learn more, see [Use SHIELD Camera](#).

Twitch by Twitch Interactive

With the Twitch viewing app, you can watch live broadcasts of the games you love and chat with the players you follow. To learn more, go to Twitch in the [Google Play store](#).

YouTube Gaming

With the YouTube Gaming app, you can watch live streams from your favorite gamers and publishers. To learn more, go to YouTube Gaming in the Google Play store.

Squid

The Squid app enables you to take handwritten notes just like you would on paper, using a stylus or your finger. Easily markup PDFs to fill out forms, edit/grade papers, or sign documents. Import images, draw shapes, and add typed text to your notes. Quickly select, copy, paste, and move content between pages and notes. Organize your notes within notebooks and increase productivity.

Fallout Shelter

Fallout Shelter is Bethesda Softworks mobile strategy game that lets gamers build and control their own underground vault and keep its residents happy and safe from all the nasty stuff above ground in the nuclear wastelands.

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Fallout Shelter

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How to Use This Guide

This guide includes instructions and information about the NVIDIA features and apps that come with your NVIDIA SHIELD tablet K1. In cases where there are multiple ways to accomplish a task, this document describes the most common procedure.

For help with the Android OS, visit Google's support website at <http://support.google.com/android/>.

Google provides help for Android OS features and for Google apps such as Gmail, Google Keyboard, Google Plus, Google Play, Chrome, and YouTube.

For help with pre-installed and third-party apps, please visit the app's support website. Most apps include a Help button or an About button that provides a link to the app's support website.

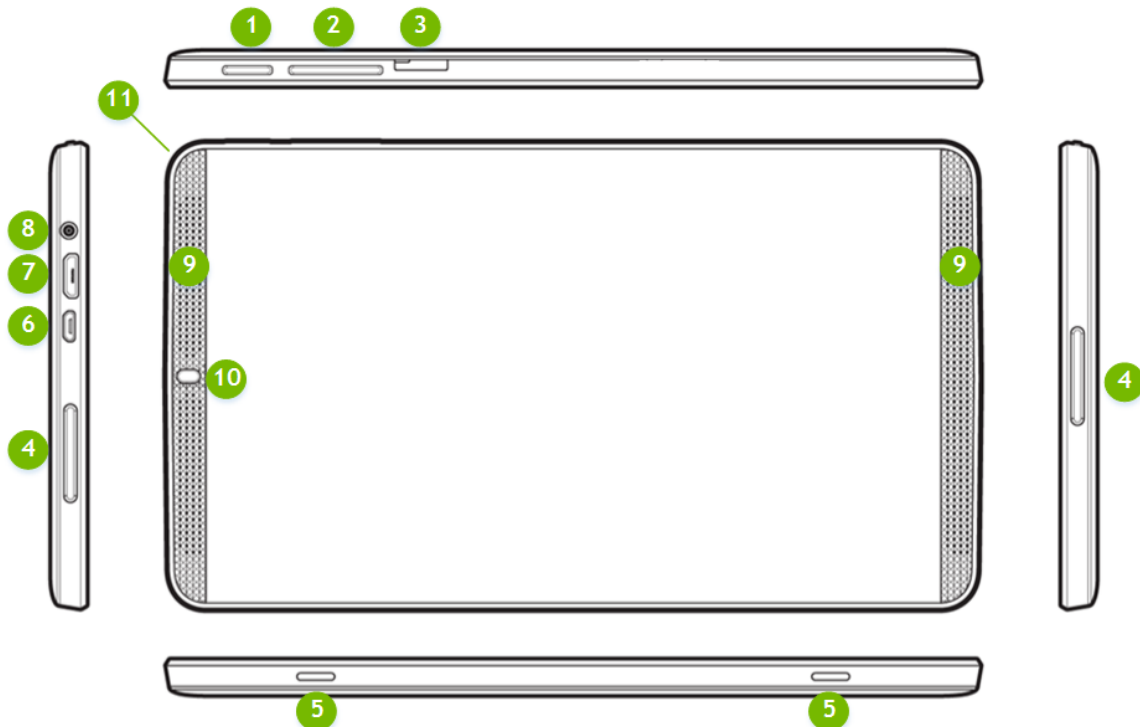
SHIELD Tablet K1 Overview

The SHIELD tablet K1 box includes one SHIELD tablet K1 and a Safety Guide.

To support and charge your Tablet, you need to *purchase* a micro-USB-to-USB cable and an AC adapter if you want to charge your tablet by plugging it into a wall outlet. A SHIELD World Charger is available for purchase. Additional optional accessories include the SHIELD tablet K1 cover, wireless SHIELD Controller, and a Stylus.

SHIELD Tablet

Front View



1	Power button
2	Volume button
3	MicroSD Slot. Accepts up to 128 GB MicroSD card.
4	Bass reflex port
5	Magnetic slots for the snap-on cover. The cover is sold separately.
6	Micro-USB port to connect the Micro-USB-to-USB cable to charge the SHIELD tablet K1
7	Mini-HDMI port for connecting the tablet to an external display
8	Headphone jack (3.5 mm)
9	Front camera
10	Speaker
11	Rear camera located on the back corner of the tablet

Get Started

Your SHIELD tablet K1 should arrive with at least a 50 percent charge in the battery. However, if the battery level is low or empty, we recommend that you charge your device for two hours before you begin the setup process. Your SHIELD tablet K1 does not include a charger and cable. You need a micro-USB-to-USB cable with an AC adapter. An NVIDIA World Charger Is available for purchase.

How to Charge Your SHIELD Device

1. Plug the micro-USB end of a micro-USB-to-USB cable into the micro-USB port of the SHIELD tablet K1 .
2. Plug the standard USB end of the USB cable into a USB power source, such as an AC adapter or a USB port on a computer.

NOTE You can use the SHIELD tablet K1 while the device is plugged into your computer or other power source. However, when the device is in use, the charging time is extended.

How to Turn On Your Tablet

Press and hold the **Power** button until the screen turns on, and then release the button. It may take three or four seconds for the screen to turn on.

How to Use the Touchscreen

Use your fingertip or the stylus to perform these touchscreen gestures.


Tap	Tap an icon to perform an action. For example, tap the Maps icon to open Google Maps.
Double-tap	Tap twice quickly. Use double-tap to zoom a photo, webpage, map, or other content. Double-tap again to return to the original size. Not all apps support double-tap.
Tap and hold	Touch an icon and hold until the action occurs. For example, on the Home screen, touch an app icon until all of the icons begin to wiggle.
Drag	Touch and hold, and then move your finger to drag. For example, on the Home screen, touch an app icon until all of the icons begin to wiggle. Drag your finger to move the app icon to another area of the screen. When you lift your finger off the screen, the icon stays in its new position.
Swipe	Swipe your finger up, down, or across to move through lists, screens, photos, and other content. Do not pause while swiping. A pause may change the action from a swipe to a drag.
Pinch	Place two fingers on the screen, a few inches apart. Move the fingers together to zoom out. Not all apps support pinch.
Spread	Place two fingers on the screen, close together. Move the fingers apart to zoom in. Not all apps support spread.

How to Complete NVIDIA Setup

Follow the prompt and select a language. Accept the NVIDIA Software License Agreement, Privacy Policy, and Tegra Experience Terms of Service. For more information about these agreements and policies, see [SHIELD Legal](#).

How to Complete Android Setup

Android prompts you to connect to Wi-Fi, enter your Google account and set your initial preferences for location services and other features. You may change these preferences later in **Settings**. You must accept the Google terms of service.

NOTE If you do not already have a Google account, you can create one during the setup process. If you have multiple Google accounts, you can add other accounts later in **Settings** .

You can use your SHIELD tablet K1 without signing in to a Google account. However, you must have a Google account to use Google mobile services.

Your Google account is the e-mail address and password that you use to log into Gmail, YouTube, Google Drive, and other Google services.

Your Google account enables the following features:

- Synchronize and back up your e-mail, calendar events, contacts, messages, and other data across devices.
- Use Google Play to purchase and access movies, TV shows, books, music, magazines, and apps.
- Connect to Google Wallet.
- Secure your personal data.

How to Turn Off Your Tablet

1. Press and hold the **Power** button for three seconds. The device control panel opens.
2. Tap the **Power Off** icon .



NOTE You can also hold the power button for four seconds to turn off the device.

How to Restart Your Tablet

1. Press and hold the **Power** button for three seconds. The device control panel opens.
2. Tap the **Restart** icon .
3. At the prompt, tap **Restart**.



NOTE You can also press and hold the power button for 12 seconds to shut down the device.

Manage Your Tablet

How to Navigate Your Tablet




Your NVIDIA SHIELD tablet K1 supports standard Android navigation, such as the Notification shade and the Favorites bar.

This guide includes instructions for the most common navigation elements. Most of the elements are standard with the Android operating system.

For help with the Android OS, visit Google's support website at <http://support.google.com/android/>.

Navigation Overview



- 1 Notification bar.** Notification icons show that you have new e-mail, calendar events, alarms, and other notifications. Swipe down to view details in the Notification shade.
- 2 System bar.** System icons show the Wi-Fi signal strength, battery level, Bluetooth connectivity, and other statuses. For more information, see [How to View Device Status](#).
Swipe down from the System bar to view the Quick Settings shade. For more information, see [How to Use Quick Settings](#).
- 3 Favorites.** The Favorites tray provides quick access to up to six apps. The Favorites tray is visible on all Home pages. For more information, see [Organizing Your Apps](#).
- 4 Navigation bar.** These icons provide common navigation functions, such as return to the previous screen, open the main Home screen, and view recently opened apps.
 -  **Back.** Tap to return to the previous screen.
 -  **Home.** Tap to return to the main Home screen.
 -  **Recently Used Apps.** Tap to view apps that are currently open, in order of recent use.



NOTE If the Navigation bar is hidden, swipe up from the bottom of the screen to open it. Some apps hide the Navigation bar to provide you with a full-screen experience. The Navigation bar also hides after a period of disuse.

How to Navigate Your Tablet

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◀ **Back.** Tap to return to the previous screen.

 **Home.** Tap to return to the main Home screen.

 **Recently Used Apps.** Tap to view apps that are currently open, in order of recent use.



NOTE If the Navigation bar is hidden, swipe up from the bottom of the screen to open it. Some apps hide the Navigation bar to provide you with a full-screen experience. The Navigation bar also hides after a period of disuse.

How to Connect to Wi-Fi



Your device scans automatically for available Wi-Fi networks and connects to known networks when you are within range.

The Android operating system provides several options for connecting to Wi-Fi. This section describes the most common options.






For help with the Android OS, please visit Google's support website at <http://support.google.com/android/>.

How to Connect to Wi-Fi



1. Go to **Settings > Wireless & Networks > Wi-Fi**. Wi-Fi settings are also available on the Quick Settings shade. For more information, see [How to Use Quick Settings](#).
2. If Wi-Fi is set to **OFF**, tap the **ON/OFF**  switch to turn it on.
When Wi-Fi is on, the **ON/OFF**  switch shows **ON**.
3. Tap **Wi-Fi**. The Wi-Fi control panel shows the wireless networks that are in range and indicates their signal strength. The control panel also shows any wireless networks that your device has connected to in the past. If you are already connected to Wi-Fi, the name and signal strength of the current Wi-Fi network are shown.
4. In the Wi-Fi control panel, select the network that you want to connect to.
5. If prompted, enter the password and tap **Connect**.

How to Scan for Available Wi-Fi Networks

1. Go to **Settings > Wireless & Networks > Wi-Fi**.
2. If Wi-Fi is set to **OFF**, tap the **ON/OFF**  switch to turn it on.
When Wi-Fi is on, the **ON/OFF**  switch shows **ON**.
3. Tap **Wi-Fi**.
4. In the Wi-Fi control panel, tap the menu icon . The menu opens.
5. Tap **Scan**. A list of available networks appears.

How to Remove a Wi-Fi Network Connection

When you remove a Wi-Fi network connection, the network may still appear in the list if you are within signal range. To connect to the network again, tap the network.

1. Go to **Settings > Wireless & Networks > Wi-Fi**.
2. If Wi-Fi is set to **OFF**, tap the **ON/OFF**  switch to turn it on.
When Wi-Fi is on, the **ON/OFF**  switch shows **ON**.
3. Tap **Wi-Fi**.
4. In the Wi-Fi control panel, tap the network that you want to remove. The network window opens.
5. Tap **Forget**.

How to Customize Your Device

You can customize what you see, what you hear, and how you interact with your SHIELD tablet K1 . Set your personal preferences for notification sounds, screen brightness, wallpaper images, font size, power saving mode, and other settings. Settings can be changed at any time.

The Android operating system provides several options for customizing your device. This section describes the most common options.




For help with the Android OS, visit Google's support website at <http://support.google.com/android/>.

TIP: After you view or change any settings, tap **Back**  to return to the previous screen or tap **Home**  to return to the Home screen.

How to Open Settings

1. Tap **All Apps** .
2. Tap **Settings** .

You  can also use the Quick Settings. Swipe down from the System bar and then tap **Settings**. For more information, see [Use Quick Settings](#).

Sounds

How to Turn Touch Sounds On and Off

Touch sounds provide audio feedback when you use the touchscreen.

1. Go to **Settings > Device > Sound & notification > Other sounds**.
2. Use the **Touch sounds** switch to turn touch sounds on/off.

Display

How to Adjust Display Brightness

1. Go to **Settings > Device > Display**.
2. Tap **Brightness level**. The Brightness control panel opens.
3. Swipe the slider to dim or brighten the display.

NOTE To adjust brightness automatically, turn on **Adaptive brightness**. Your device senses the amount of light in the immediate environment and adjusts the display brightness in response.

How to Change the Wallpaper

The wallpaper is an image or pattern that shows in the background of the Home screen pages.

1. Go to **Settings > Device > Display**.
2. Tap **Wallpaper**. The Wallpaper control panel opens.
3. Select the type of wallpaper that you want.
 - **ES File Explorer**. Select from drawings, photos, or other images on the device.
 - **Live Wallpapers**. Select from animated images.
 - **Photos**. Select from your photos.
 - **Wallpapers**. Select from still images.
4. Tap the image you want.
5. Tap **Set Wallpaper**.

How to Change the System Font Size

The font-size setting changes your device's system font size. However, apps may define their own font sizes. Fonts displayed in apps may not conform to the font-size setting.

1. Go to **Settings > Device > Display**.
2. Tap **Font Size**. The Font Size control panel opens.
3. Tap a font size. The control panel closes and the device applies the new font size immediately.

Power Saving

How to Change the Sleep-Mode Interval

Sleep mode conserves power by turning off the display after a period of inactivity. Sleep mode also activates the screen lock security, if any. For more information, see [Secure Your Device](#).

1. Go to **Settings > Device > Display**.
2. Tap **Sleep**. The Sleep control panel opens.
3. Tap the interval of time that you want the display to remain on when there is no activity. At the end of this interval, your device automatically enters sleep mode.

How to Manage Processor Performance

1. Go to **Settings > SHIELD Power Control**.
2. Tap **Processor**. The Processor status screen opens. This screen shows the selected power saving mode, the cores allowed by the mode, and whether a frequency limit is enabled.
3. In the **System** section, tap **Processor Mode**. The Processor Mode control panel opens.
4. Tap a processor mode.
 - **Max Performance**. This mode provides maximum processor performance. This option drains the battery faster than the other options.
 - **Optimized**. This mode provides a balance between performance and saving power.
 - **Battery Saving**. This mode conserves power by limiting the number of processor cores and setting a frequency limit.
 - **My Power Mode**. This mode provides the option to create your own power mode. Select the number of cores, core frequency, and frame-rate limit.

How to Reduce Background App Power Usage

Some apps use power even when your device is not in use. For example, a weather app might download information every 30 minutes even when the app is closed. You can conserve battery power by reducing app activity for apps you do not use often.

1. Go to **Settings > SHIELD Power Control**.
2. Tap the **Apps** tab.
3. In the list of apps, tap **Change** to enable or disable the parameters that affect performance and power consumption.

How to Organize Your Apps

The Android operating system provides several options for organizing your apps and widgets. This section describes the most common options.

For help with the Android OS, visit Google's support website at <http://support.google.com/android/>.

Home Screen

The Home screen is a place to organize apps and to display widgets. To return to the main Home screen at any time, tap the **Home** icon in the Navigation bar.

If the  Navigation Menu is not visible, swipe up from the bottom of the screen to open it.

Your NVIDIA device supports multiple Home screen pages. When you add more apps and widgets than can fit on the default Home screen page, additional pages are created automatically.

How to Create Home Screen Pages


Touch and hold an app icon and Drag it to the left or the right edge of the screen. A new Home screen is added with that app icon displayed when you lift your finger .

How to View Home Screen Pages

From any Home screen, swipe left or right.

Apps and Widgets

How to Add Apps to the Home Screen

1. Tap **All Apps** .
2. Tap and hold the app icon that you want to move. The Home screen appears behind the app icon.
3. Drag the icon to the page and location where you want to place the app.
4. Release the app icon and the icon is added to the Home page.

How to Move Apps Around the Home Screen

1. Tap and hold the app icon that you want to move. The icon glows briefly and appears larger.
2. Drag the icon to the location where you want to place it. To move the app to another Home screen page, drag the icon to the right or left edge of the screen.
3. Release.

How to Add Apps to the Favorites Tray

The Favorites tray shows on all Home screen pages. If the Favorites tray already shows six apps, remove an app before you attempt to add another.

1. Tap and hold the app icon that you want to move. The icon glows briefly and appears larger.
2. Drag the icon to the Favorites tray.
3. Release.

How to Remove Apps from the Favorites Tray

1. Tap and hold the app icon that you want to move. The icon glows briefly and appears larger.
2. Drag the icon to the Home page.
3. Release

Folders

How to Create Folders to Group Apps Together

1. On the Home screen, tap and hold an app icon.
2. Drag and drop the icon onto another app icon. The folder is created.
3. Tap the folder.
4. Tap the text **Unnamed Folder**.
5. Enter a name.
6. Tap anywhere on the touchscreen to save the new name.

How to Rename a Folder

1. Tap the folder.
2. Tap the folder's name.
3. Enter the new name.
4. Tap anywhere on the touchscreen to save the new name.

How to Open Apps That Are in a Folder

1. Tap the folder. The folder opens to show the app icons inside.
2. Tap an app icon to open the app.

How to Manage Notifications

Notifications indicate that you have new text messages, e-mail, calendar events, alarms, and many other events in progress.

How to Change the Notification Sound

The notification sound provides an audio alert when new notifications arrive.

1. Go to **Settings > Device > Sound & notification**.
2. Tap **Default notification ringtone**. A list of available sounds opens.
 - Tap any sound to hear a preview.
 - To silence notifications, swipe to the top of the list and tap **None**.
3. To assign the selected sound, tap **OK**. To keep the previously assigned sound, tap **Cancel**.

How to View or Hide Notification Details


To view notification details, swipe your finger from the notification area toward the center of the touchscreen. The **Notification Shade** opens.

To expand or collapse the **Notification Shade**, tap and drag the bottom edge of the shade up or down.


To close the **Notification Shade**, swipe from the bottom of the shade up toward the notification area.

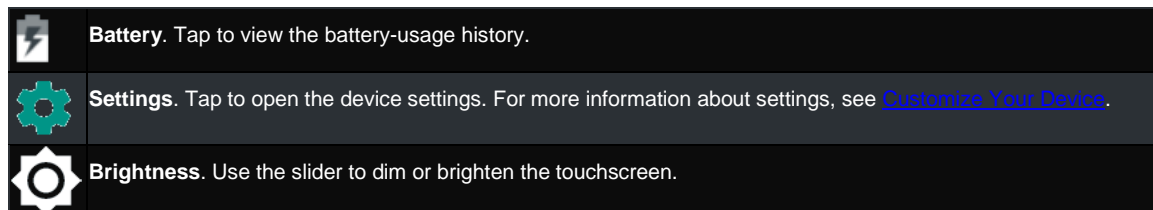
How to Clear a Notification









1. Open the **Notification Shade**.
2. Swipe the notification to the right or left.

 **NOTE** Only the notification is cleared. The e-mail, text, download, or other event associated with the notification is not deleted.

How to Use Quick Settings

The Quick Settings shade provides one-touch access to important settings. To open the Quick Settings shade, two-finger swipe down from the System bar or double-swipe down. To close Quick Settings, swipe up from the bottom of the shade or tap **Back** .



	Wi-Fi. Tap to open the Wi-Fi settings. If your device is connected to Wi-Fi, the network name and signal strength are shown.
	Bluetooth. Tap to toggle Bluetooth ON/OFF . For more information about Bluetooth, see Use Bluetooth Accessories .
	Share. Tap to open Record and Share to share or broadcast your gameplay over the internet. For more information, see Record and Share Your Gameplay .
	LTE Signal. Tap to open Cellular data settings.
	Rotation. Tap to switch between Auto-rotate, Portrait, or Landscape orientation.
	SHIELD controller. Tap to open the wireless controller app to connect and manage your controller.
	Cast Screen. Tap to stream media to other devices, such as network-connected TVs.
	Full Screen. Tap to switch between Full Screen and normal display mode. When the device is in Full Screen mode, the Navigation bar and System bar are hidden from the Home screen.

How to Use the Google Keyboard

The Google Keyboard appears automatically when you touch any text-input field. For example, open Chrome and tap in the Google Search box. The Google Keyboard opens.

NOTE If an external Bluetooth keyboard is connected, the Google Keyboard does not open.

This section describes common keyboard procedures. The Google Keyboard is part of the Android operating system.

For help with the Android OS, visit Google's support website at <http://support.google.com/android/>.

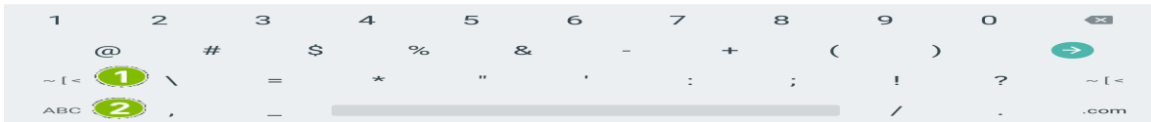
Google Keyboard (Alphabet)



- 1 Shift key.** To capitalize one letter, tap once and then tap the letter. To capitalize all letters, double-tap to enter CAPS LOCK mode.
- 2 Numbers and symbols key.** Tap once to open the numbers and symbols keyboard.
- 3 Backspace key.** Tap to erase the previous character.
- 4 Enter key.** The label of this key changes depending on context. You may see **Done**, **Search**, **Enter**, or other labels in various apps and contexts.
- 5 Shift key.** Same as **1**.

6 Spacebar

Google Keyboard (Numbers and Symbols)



1 Symbols. Tap to open additional symbols.

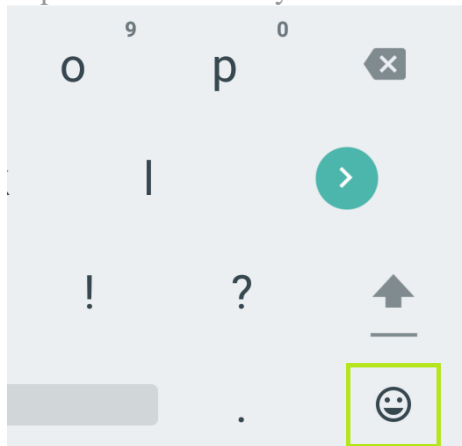
2 Alphabet. Tap to return to the alphabet keyboard.



How to Insert Emoticons or Emoji Characters

NOTE Some text fields do not support keyboard emoticons or Emoji characters. In those cases, the emoticon key does not show on the keyboard.

1. Tap the Emoticon key.



2. Swipe right or left to locate the character that you want.
3. Tap the character.

How to Enter Letter Accents and Variations


1. Tap and hold a letter. If the letter has accents or other variation, a pop-up box appears and shows the available options.

2. In the pop-up box, tap the character.


How to Use Gesture Typing

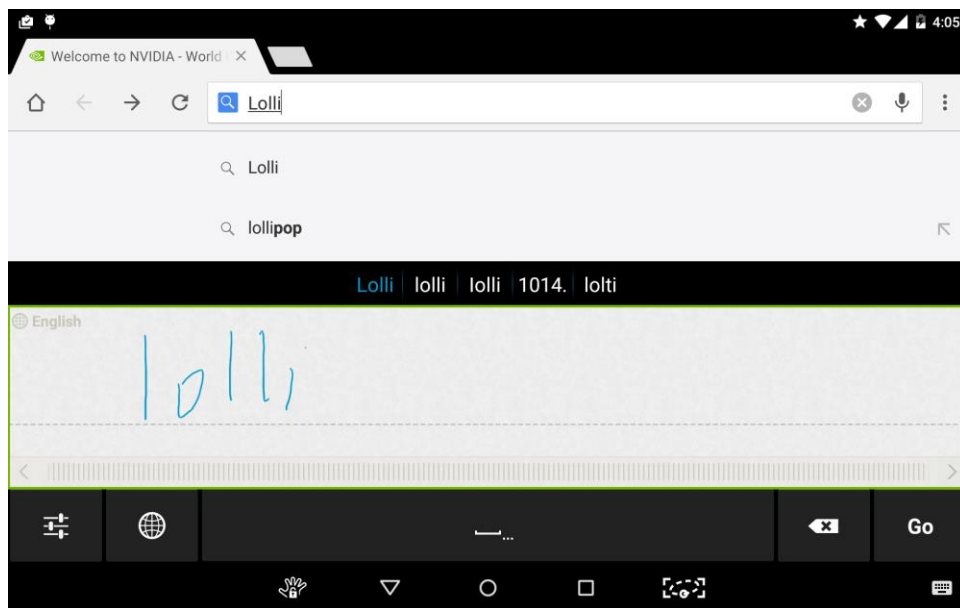
Gesture typing allows you to type by dragging from letter to letter instead of tapping each letter individually. Google Keyboard predicts the word you are typing and shows suggestions. When the word that you want is shown in the floating preview box or in the middle of the suggestion strip, release your finger. To select a different word from the suggestion strip, tap the word.

Turn gesture typing on or off in **Settings >Language & input > Google Keyboard > Gesture Typing > Enable gesture typing..**

NOTE  Gesture typing is not available for all languages.

how to use handwriting recognition


1. Tap any text input field to open the Google Keyboard.
2. Tap the **Keyboard** icon in the bottom right corner .
3. Select **Handwriting Recognition**.
4. Write on the virtual paper strip with your finger or a Stylus.



5. Your handwritten text is automatically converted into typeface characters.



6. At the bottom of the paper strip, drag on the ruler or tap on the left/right arrow buttons to manually scroll left and right.


7. To disable **Handwriting Recognition** mode, tap on the **Keyboard** icon  and select **Google Keyboard**.

How to Use Voice Typing





You can dictate text into Email, notes, and other apps that accept text input. Google Voice Typing is available when the Google Keyboard shows the microphone key. If the microphone key is not visible, voice typing is not available for that text input field.


By default, voice typing is enabled and offensive words are blocked. Your device must be connected to the Internet for voice typing in most languages. However, Android supports offline voice typing for some languages. To customize voice typing, go to **Settings > Language & input > Google voice typing**.

Voice typing is a standard Android feature.

 For help with the Android OS, please visit Google's support website at <http://support.google.com/android/>.

How to Use Voice Typing

1. Tap any text input field to open the Google Keyboard.
2. Tap the **Keyboard** icon in the bottom right corner .
3. Select **Google voice typing**.
4. At the prompt , speak. When you pause, your words are transcribed. Underlined words might have transcription errors. A **Delete** prompt also shows for a brief period of time.
 - To delete the transcription, tap **Delete**.
 - To view suggestions and replace an underlined word, tap the underlined word.
 - To return to the keyboard, tap the prompt  to pause voice typing, and then tap the **Keyboard** icon .

NOTE  In English, you can add punctuation by speaking. For example, as you speak, say "comma" or "period" to add the punctuation where you want it.

How to Allow Offensive Words

By default, Google Voice Typing does not transcribe or suggest some words.

1. Go to **Settings > Personal > Language & Input**.
2. In Keyboard & input methods, tap the **Google voice typing**.
3. Turn off **Block Offensive Words**.

How to Add Languages

1. Go to **Settings > Personal > Language & Input**.
2. Under **Keyboard & input methods**, tap **Google voice typing**.
3. Under **Languages**, tap the languages that you want voice typing to recognize and **Save**.


How to Use Offline Voice Typing

Offline voice typing is available for some languages. Only words that are included in the language dictionary are available for voice typing.

1. Go to **Settings > Personal > Language & Input**.
2. Under **Keyboard & input methods**, tap the **Google voice typing**.
3. Tap **Offline Speech Recognition**.
4. Tap **All**. The list of supported languages opens.
5. Tap a language.
6. At the prompt, tap **Download**. The device downloads and installs the correct language dictionary.





How to View Device Status

This guide describes the most common status views. The status views are standard with the Android operating system.

 For help with the Android OS, please visit Google's support website at <http://support.google.com/android/>.

System Bar Status Icons

The System bar shows information about wireless connection status, battery level, and whether Bluetooth is on. The System bar shows on Home screen pages.

	Bluetooth. This icon shows when Bluetooth is on, even if your device is not paired with a Bluetooth accessory.
	Alarm. This icon shows when an alarm is set in the default clock app.
	Wi-Fi. This icon shows when your device is connected to a wireless network. The number of bars indicates the Wi-Fi signal strength.
	Battery. This icon shows the battery level.


How to View Device Status Details

The complete system status shows details such as the serial number and MAC address of your device.

Go to **Settings > About Tablet > Status**.

How to Secure Your Device

Your Nvidia device offers several types of security that are provided by the Android operating system.

 For help with the Android OS, please visit Google's support website at <http://support.google.com/android/>.

How to Lock Your Tablet

Lock turns off the display and conserves power.

1. Press the **Power** button.
2. When the display turns off, release the button.

How to Unlock Your Tablet

1. Press the **Power** button and release. The display turns on.
2. If prompted, provide your screen lock option.

How to Set a Screen Lock

A screen lock requires you to provide an unlock option before you can access your device or change the screen lock.


1. Go to **Settings > Personal > Security**.
2. Tap **Screen Lock**.
3. Select the lock method that you want to use and follow the prompts on your device.

Screen Lock Options

None

This option removes any existing screen lock.

Swipe


This option places a lock icon  on the lock screen. To unlock the screen, swipe the lock icon in any direction.

Pattern

This method prompts you to create a pattern. To unlock the screen, swipe your finger in the pattern you created.

PIN

This method prompts you to create a 4-digit code (PIN).

To unlock the screen, tap your code and tap **Enter** .

Password

This method prompts you to create a password. Your password can include letters, numbers, and symbols.



To unlock the screen, tap the password box to open the keyboard. Enter your password and swipe up on the lock icon.

How to Update Your Device

Your device periodically receives updates from NVIDIA and Google. These updates can include performance enhancements, new features, and bug fixes for your apps and the Android operating system.

How to Install Updates

1. Go to **Settings > System > About SHIELD tablet**.
2. Tap **Status**.
3. Tap **System Updates**.
4. If an update is available, the version number and description are shown. Tap **Install** to update your device.

If you do not want to update your device at this time, tap **Back**  or **Home**  to exit the update screen.

Play Games

How To Find Games and Gaming News

The SHIELD Hub makes it easy to find games that are optimized for your SHIELD device. Games are categorized by genre, controller support, release date, and other filters so that you can quickly find what you are looking for. Each game entry includes a brief description, rating, high-resolution screenshots and HD videos to help you make your choice.

How to Open the SHIELD Hub


Tap the **SHIELD Hub** icon .

How to View Gaming News

Stay up to date with the latest news in e-sports, exclusive interviews, game releases, contests, the game industry, and more.

1. Open the **SHIELD Hub** .
2. Tap **NEWS**.

How to View Your Installed Android Games


1. Open the **SHIELD Hub** .
2. Tap **ANDROID GAMES**. The Android games list opens.
3. To open any game, tap the game icon.

How to Play PC Games from Your SHIELD Device



The **SHIELD Hub** lets you access and stream your library of PC games on your SHIELD device.

NOTE Your PC must meet the GameStream system requirements and have the GeForce Experience app installed. For more information about PC setup and using GameStream, see GameStream System Requirements.

1. Open the **SHIELD Hub** .
2. Tap **PC GAMES**. The GameStream quick guide opens.
3. Tap **Get Started** and follow the prompts.

How to Turn On or Turn Off SHIELD App Notifications

1. Open the **SHIELD Hub** .
2. Tap **SETTINGS** .
3. Check / Uncheck to toggle notifications on and off.

How to Shop for SHIELD Devices and Accessories

1. Open the **SHIELD Hub** .
2. Tap **SHOP**.
3. Tap **SHIELD**.

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How to Connect Your Controller to a SHIELD Device



Your controller is compatible with the SHIELD portable and the SHIELD tablet K1. It can also be used as a wired controller for a Windows 7, Windows 8, or Windows 10 PC running GeForce Experience. Learn more about wired PC support [here](#). Your controller cannot be used with other Android devices at this time.

How to Connect Your Controller

The first time you use your SHIELD controller, you must establish a connection with a SHIELD device. This connection is saved for future use.



NOTE If you connect the controller to another SHIELD device, the connection is removed. Follow the steps in this procedure to establish the connection again.

1. Verify that your SHIELD device has Wi-Fi turned on. It does not have to connect to a network, but Wi-Fi must be turned on.
2. On your SHIELD tablet K1, open the SHIELD Accessories app .
3. On your controller, tap the NVIDIA button . The NVIDIA button flashes to show that the controller is in connecting (pairing) mode.
If the NVIDIA button is not flashing, hold the NVIDIA button until it starts flashing and then release.
4. When the controller is connected, the Quick Guide opens and a controller icon shows in the status bar on your SHIELD tablet K1. This icon indicates that the controller is on and connected. The white portion of the icon indicates the amount of charge left in the controller.
5. Optional: To connect an additional controller, repeat these steps on the additional controller.

How to Reconnect the Controller


Your controller automatically reconnects when the SHIELD device and the controller are turned on and in range.

1. Turn on your SHIELD device.
 2. Turn on the controller.



When the controller is connected to a SHIELD tablet K1 and the tablet goes into sleep mode, the controller can wake the tablet for the first 10 minutes. After 10 minutes, the controller goes to sleep. You must then manually turn on the tablet and the controller.

How to Troubleshoot Connection Problems

1. Verify that the controller has enough charge or connect the controller to a power source other than a computer.
2. Verify that the controller is not connected to a computer. The controller cannot be connected to a SHIELD device while the controller is charging from a computer.
3. Verify that the controller's NVIDIA button  is flashing at the same time that the SHIELD tablet K1 is searching for a controller.
On the controller, hold the NVIDIA button until it starts flashing. Open the SHIELD Accessories app on your SHIELD tablet K1 to initiate the connection process.
4. Verify that the SHIELD device has Wi-Fi turned on.
5. Verify that only one controller in range is attempting to connect to the SHIELD device. The connection process for one controller must complete before you can connect another controller.

6. Verify that only one SHIELD device in range is attempting to connect to the controller.
7. Verify that the SHIELD device has the latest system update.
8. Verify that the controller has the latest controller update. For more information, see [Update Your Controller](#).
9. If your controller is still not responsive, hard reset the controller by holding the NVIDIA button for 15 seconds.
10. If you are still having trouble, please contact [customer support](#).

Use Your Tablet as a Game Console

Console Mode transforms your SHIELD tablet K1 into a full gaming and entertainment experience on your HDTV. In Console Mode, you can do everything that you would normally do on your device. Your TV provides the display, and you navigate with a keyboard and mouse or with a game controller. Play Android games, browse the web, check your e-mail, and watch your favorite movies.



When in your device is in Console Mode, the apps, menu, browser, and optimized Android games play back at native 1080p resolution. However, some Android games are not optimized for 1080p.

Console Mode requires the following hardware:

- **Cable.** A Mini-HDMI to HDMI cable.
- **HDTV.** An HDTV with HDMI support.
- **Controller.** A Bluetooth wireless controller or keyboard and mouse. NVIDIA recommends the NVIDIA SHIELD Controller.

How to Connect Your Device to an HDTV

Console Mode opens automatically when you connect your device to an HDTV.

1. Connect a wireless controller or a Bluetooth keyboard and mouse. For more information, see [NVIDIA SHIELD controller](#) or [Using Bluetooth Accessories](#).
2. Insert the cable's Mini-HDMI connector into the Mini-HDMI port of your device.
3. Insert the cable's HDMI connector into an HDMI port on your HDTV.
4. At the SHIELD Console Mode prompt, select **Enter Console Mode**.



If you experience loss of details in the dark areas and increased color contrast when playing in Console Mode via HDMI, you might have mismatched color range settings on your device and TV. You can correct this issue by changing the setting in **Settings > HDMI > Color Correction preset** from "Native (default)" to "sRGB."

How to Record and Share Your Gameplay


You can record your gameplay to a video file and share the video through Email, YouTube, and other sharing methods.

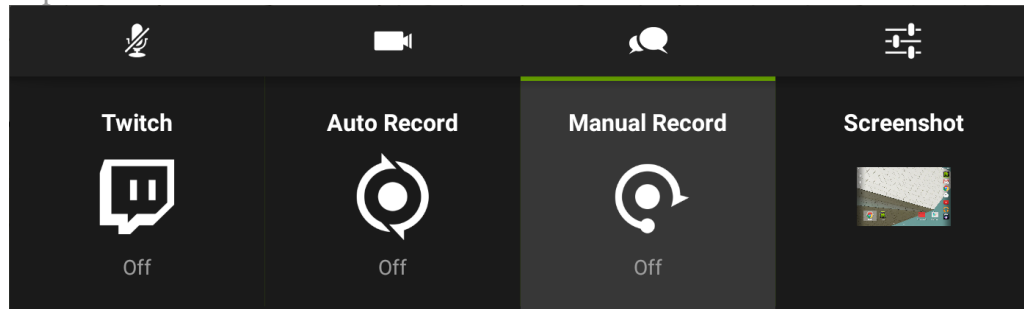
The video captures everything that you do on your tablet, including browsing incognito or logging into your mobile banking app. Pay attention to what you are doing while you record and do not share any video that shows personal information.

The first time you turn on your tablet, the Notifications shade includes a notification for Record and Share. Tap this notification to view a quick start guide to recording and sharing your gameplay.

For more information about broadcasting your gameplay to the internet, see [Broadcast Your Gameplay to Twitch TV](#).

How to Record and Share Your Gameplay

1. Open the game that you want to record.
2. Open the Quick Settings shade (swipe down from the top of the screen).
3. Tap **Share** .
4. Tap **Manual Record**.



5. Tap **Start**.
6. Play the game.
7. Open the Quick Settings shade.
8. Tap **Share**.
9. Tap **Manual Record**.
10. Tap **Stop and Share**.
11. Select a sharing method.
12. Follow the prompts to complete the share. The recording is also saved to the Gallery.


How to Record Your Gameplay Without Sharing

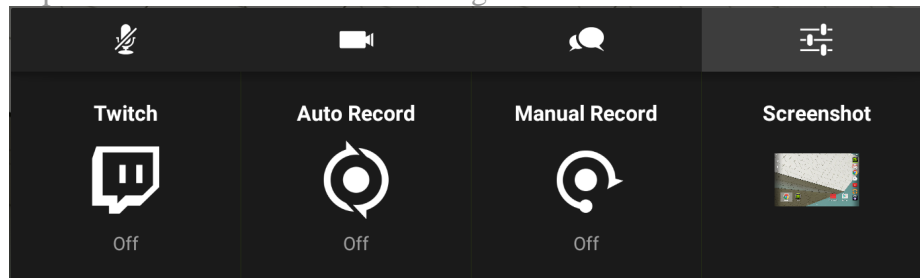
1. Open the game that you want to record.
2. Open the Quick Settings shade.
3. Tap **Share**.
4. Tap **Manual Record**.


5. Tap **Start**.
6. Play your game.
7. When you are ready to stop recording, open the Quick Settings shade.
8. Tap **Share**.
9. Tap **Manual Record**.
10. Tap **Stop**. The recording is saved to the Photos.

How to Set the Video Quality

Video quality settings apply to record and share video and to broadcast video. For more information about broadcasting, see [Broadcast Your Gameplay to Twitch TV](#).

1. Open Quick Settings.
2. Tap **Share**.
3. Tap the Record and Share  settings icon .



4. Tap the **Previous** and **Next** icons to scroll through the available quality levels. Lower qualities result in smaller file sizes for sharing and broadcasting. Higher qualities result in sharper images and smoother video.
5. When the quality level that you want is showing, tap **Back**  to return to the Record and Share settings.

How to Find Your Gameplay Videos

The first time that you record and save your gameplay, a Game Recordings album is created in the Gallery.

To view the saved recordings, open the Gallery and then open **Game Recordings**.

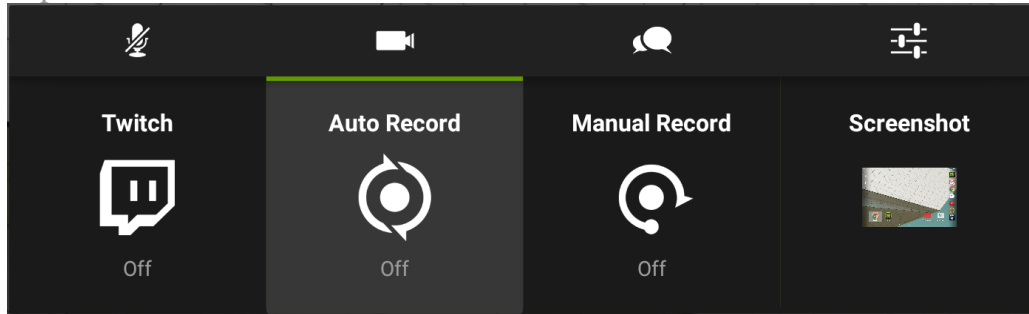
How to Record Your Gameplay Automatically

You can set your tablet to record your gameplay automatically with Auto Record. When Auto Record is turned on, your tablet records your gameplay continuously. You can then save and share the last 1 to 20 minutes of the recorded video. For more information about video length, see [How to Set the Maximum Video Length](#)

How to Turn On Automatic Recording

1. Open Quick Settings.

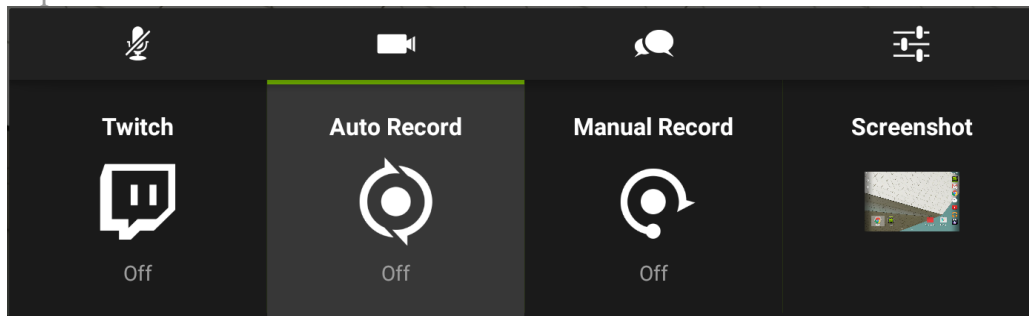
2. Tap **Share**.
3. Tap **Auto Record**.



4. Tap **Start**.

How to Save and Share Automatically Recorded Video

1. Open Quick Settings.
2. Tap **Share**.
3. Tap **Auto Record**.

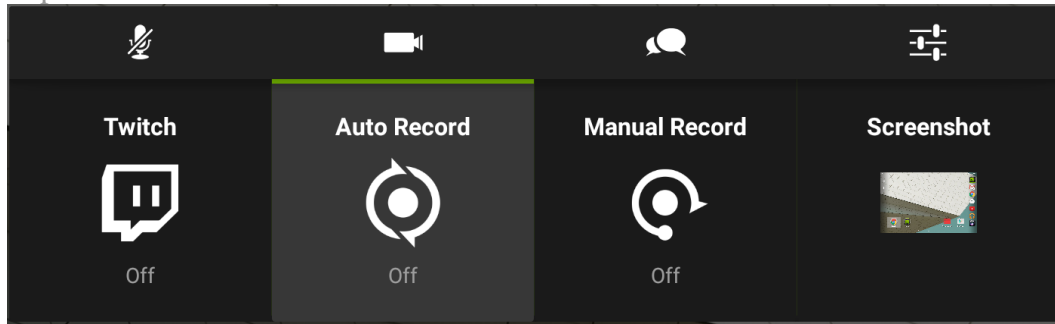


4. Tap **Save and Share**.
5. Select a sharing method.
6. Follow the prompts to complete the share. The recording is also saved to the Gallery.

How to Stop or Save Automatically Recorded Video Without Sharing


1. Open Quick Settings.
2. Tap **Share**.

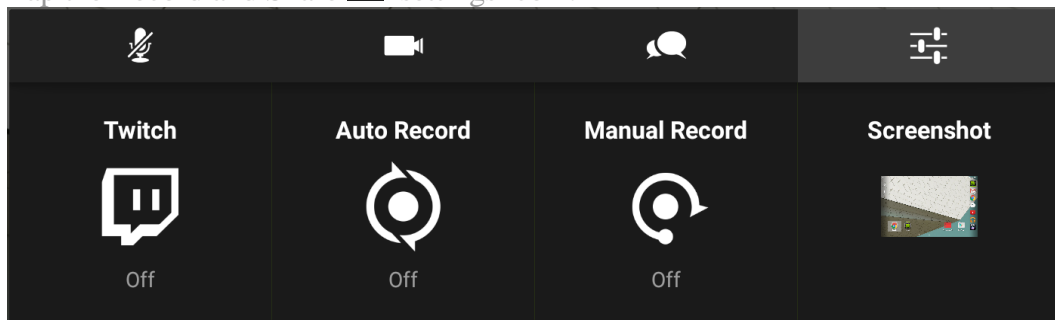
3. Tap **Auto Record**.



4. To save the video to the Gallery, tap **Save**. To stop recording without saving the video, tap **Stop**.

How to Set the Maximum Video Length for Automatic Recording

1. Open Quick Settings.
2. Tap **Share**.
3. Tap the Record and Share  settings icon .



4. Tap **Auto Record**.
5. Tap the **Previous** and **Next** icons to scroll through the available lengths.
6. When the length that you want is showing, tap **Back** to return to the Record and Share settings.

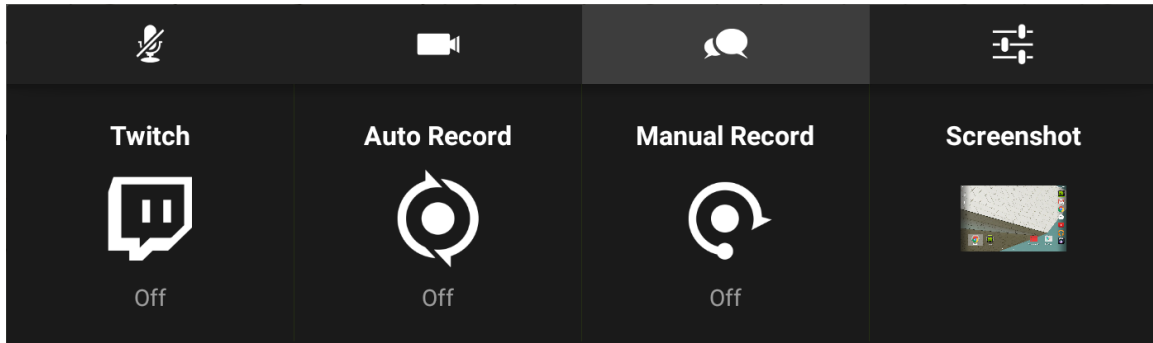
How to Mute the Microphone for Gameplay Videos

The microphone captures audio from outside the game, such as your voice or sounds from your environment. Even with the microphone muted, the video includes the sound effects and music in the game unless you have muted the game's audio from within the game settings.

1. Open Quick Settings.
2. Tap **Share**.
3. Tap the **Microphone** icon  to toggle between mute and unmute.

How to Block Chat from Your Twitch Broadcast


To prevent the Twitch chat stream from showing on your Twitch broadcast, tap the **Block Chat** icon before you select Twitch. When chat is blocked, your viewers cannot see or participate in the chat stream.






How to View Recording and Broadcasting Status

When your tablet is recording or broadcasting video, the following status information shows under the System bar.



The  status icons show information only. You cannot modify recording or broadcasting settings from the status icons.

- **Broadcast quality.** For example, Low Quality is **360p**, Medium Quality is **480p**, and High Quality is **720p**. Ultra Quality is **1080p**. Ultra Quality is not available for broadcast, but you can record and share Ultra Quality video.
- **Frame rate per second (fps).** For example, Medium and High Quality typically broadcast at about **30 fps**. Low Quality typically broadcasts at **25 fps**. Lower frame rates require less bandwidth.
- **Network speed (Mbps).** Many factors affect the network speed, including the strength of your local Wi-Fi connection and which Twitch server you are connected to. Network speed is shown when you are recording video even if you are not broadcasting.
- **Viewers.** The number next to the viewer icon  shows the number of people who are watching your broadcast.
- **Mute.** If your microphone is muted, a mute icon shows. If the microphone is not muted, no microphone icon shows.

- **Broadcast status.** The recording icon  shows when you are recording but not broadcasting. The broadcasting icon  shows when you are broadcasting live to Twitch.
- **Pause.** If your broadcast is paused, a pause icon shows.

How to Broadcast Your Gameplay to Twitch TV

You can broadcast your gameplay to Twitch TV for other people to watch as you play. You can also use the front-facing camera to include your face in a picture-in-picture window with your gameplay. You must log into your Twitch account to broadcast from your tablet to Twitch.



For more information about Twitch, please visit the Twitch support page at help.twitch.tv.

How to Create a Twitch Account

You must have a Twitch account to stream your gameplay to Twitch. You can create an account on the web at Twitch.tv or sign up through the Twitch control panel on your tablet.

1. Open Quick Settings.
2. Tap **Share**.
3. Tap **Twitch**.
4. Tap **Log In**.
5. Tap **Sign up for Twitch**. The browser opens.
6. Follow the prompts to create your Twitch account.

How to Connect Your Tablet to Twitch

1. Open Quick Settings.
2. Tap **Share**.
3. Tap **Twitch**.
4. Tap **Log In**.
5. Enter your Twitch user name and password.
 - To customize Twitch, tap the settings icon  and select **Twitch settings**.
 - To broadcast live, tap **Start Broadcasting**.
 - To return to your game, tap **Recently Used Apps**  and open the game.

How to Broadcast Your Gameplay to Twitch

The broadcast shows everything that you do on your tablet, including browsing incognito or logging into your mobile banking app. Do not do anything on the tablet that reveals personal or private information while you are broadcasting.

1. Open the game you want to play.
2. Open Quick Settings.
3. Tap **Share**.
4. Tap **Twitch**.
5. Tap **Broadcast**.

How to Stop Broadcasting


1. Open Quick Settings.
2. Tap **Share**.
3. Tap **Twitch**.
4. Tap **Stop**.

How to Share Your Broadcast

The Share option sends the direct link to your Twitch broadcast. Share is only available when you are broadcasting.

1. Start broadcasting.
2. Open Quick Settings.
3. Tap **Share**.
4. Tap **Twitch**.
5. Tap **Share**.
6. Select a sharing method.
7. Follow the prompts to complete the share.


How to Apply the Recommended Quality and Server Settings

1. Open Quick Settings.
2. Tap **Share**.
3. Tap the Record and Share settings icon .
4. Tap **Twitch**.
5. Tap **Recommend Best Settings**.

6. Tap **OK**. Twitch analyzes your network connection to determine the server and the video quality to recommend. When analysis is complete, the results dialog box opens.
7. To close the dialog box without applying the settings, tap **OK**. To apply the recommended settings, tap **Use**.




How to Change the Twitch Server

Typically, a server that is closer to your location provides a faster connection speed. However, if you are experiencing server issues, you might want to connect to a different server.

1. Open Quick Settings.
2. Tap **Share**.
3. Tap the Record and Share settings icon .
4. In the Record and Share settings control panel, tap **Twitch**. The Twitch settings control panel opens.
5. Tap the **Previous** and **Next** icons to scroll through the available servers.
6. When server that you want is showing, tap **Back** to return to the Record and Share settings.

How to Pause Broadcasting Automatically When You Switch Apps

This setting pauses the broadcast when you are switching apps. The broadcast resumes automatically when you are in an app, even if that app is not your game.

1. Open Quick Settings.
2. Tap **Shield Menu**.
3. At the bottom of the screen, tap the Record and Share settings icon .
4. In the Record and Share settings control panel, tap **Twitch**. The Twitch settings control panel opens.
5. Tap **Pause broadcasting when switching apps**.
6. To return to your game, tap **Recently Used Apps**  or **Back** .

GameStream

NVIDIA GameStream

Experience your library of PC games in the palm of your hands or on your big screen TV. Either with game-speed Wi-Fi with ultra-low latency or a wired Ethernet connection, GAMESTREAM officially supports over 200 of the best PC games, including awesome games like *Batman: Arkham Origins*, *Titanfall*, and *Assassin's Creed IV: Black Flag*.

SHIELD gives you the power to access your GeForce® GTX-powered computer from the comfort of your couch. Play your favorite PC games on a full-size controller with ultra-low latency thanks to SHIELD's game-speed Wi-Fi and the fast performance of GeForce GTX GPUs. Use a [SHIELD Controller](#) or mouse and keyboard to play almost any game on a big screen TV with Console Mode.

- Enjoy full optimization for game speed WiFi with ultra-low latency, using any of our recommended routers.
- Experience visual performance with 1080p at up to 60 frames per second on SHIELD tablet's 8" HD multi-touch LCD display or take advantage of 1080p streaming to your HDTV.
- Console Mode ready - experience your favorite PC games on the big screen



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How GameStream Works

NVIDIA uses the H.264 encoder built into GeForce GTX 650 or higher desktop GPUs along with an efficient wireless streaming software protocol integrated into GeForce Experience to stream games from the PC to SHIELD over the user's home Wi-Fi network with ultra-low latency. Gamers can then use [SHIELD controller](#) + SHIELD as the controller and display for their favorite PC games that are supported for GameStream, as well as for Steam Big Picture.


In addition to streaming the game, NVIDIA also configures PC games for streaming using GeForce Experience to deliver a seamless out-of-the-box experience. There are three key activities involved here:

- **Generating optimal game settings for streaming games from the PC to SHIELD** . We use our GeForce Experience servers to determine the best quality settings based on the user's CPU and GPU, and target higher frame rates than 'normal' optimal settings to ensure the lowest latency gaming experience. These settings are automatically applied when the PC game is launched so gamers don't have to worry about configuring these settings themselves.
- **Enabling controller support in games**. This avoids gamers having to manually configure controller support in the game – it 'just works' out of the box.
- **Optimizing the game launch process**. This is important so that gamers can get into the game as quickly and seamlessly as possible, without hitting launchers or other two foot UI interactions that can be difficult to interface with a controller.

How to Configure GameStream PC


How to Configure GameStream PC

Setting Up Your PC

1. Install the latest GeForce display driver available at <http://www.geforce.com/drivers>. This will automatically install GeForce Experience as well.
2. Launch GeForce Experience.
3. Click Scan  for games.

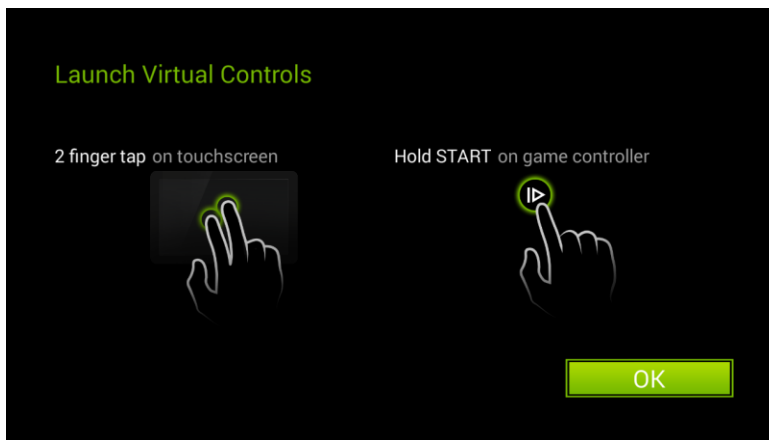
4. On the My Rig tab in GeForce Experience, confirm that your PC meets the hardware requirements for game streaming.
5. Log in to GeForce Experience using the **Log in** button on the top right corner.
6. A new window appears, giving you two choices: log in with a new NVIDIA account that you can create from the window, or log in with your Google account. Log in with the same account you use on your SHIELD.



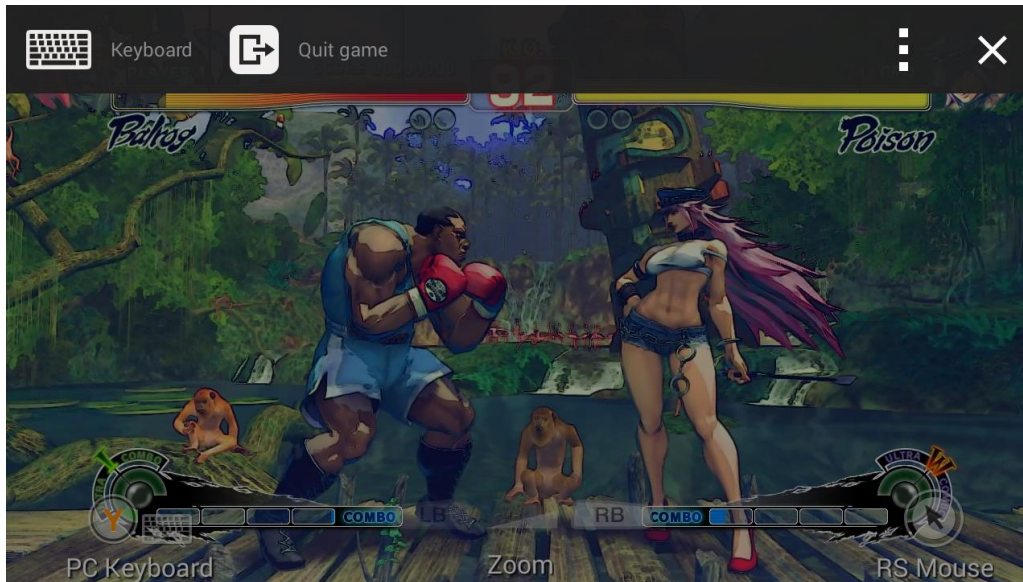
7. Press the SHIELD button  to launch SHIELD Hub and select the **PC GAMES** tab.
8. Log in using the same credentials you use for GeForce Experience.
A list of supported PC games that are available to stream from your PC displays on the screen.

Using On-screen Controls

On-screen controls allow users to interact with game dialogs to make GameStream a better experience on SHIELD. To access GameStream on-screen controls, use a two-finger tap or long-press the Start button.



The on-screen controls will bring up a menu screen with three options: Keyboard, Quit, and three-dot menu.



If you need to input information into a dialog, use the Keyboard selection. If you want to quit the game, select **Quit game**. Most of the touch navigation options are straightforward. Clicking three-dot menu > Help will display the full list of available touch interactions.

GameStream System Requirements

The basic requirements are a Wi-Fi router and a modern gaming PC with a GeForce GTX 650 or higher desktop GPU.

The detailed requirements are:



- **GPU:**
 - Desktop: GeForce GTX 650 or higher
 - Notebook: GeForce GTX 800M, GTX 700M, and select (Kepler-based) GTX 600M GPUs
- **CPU:** Intel Core i3-2100 3.1GHz or AMD Athlon II X4 630 2.8GHz or higher
- **System Memory:** 4GB or higher
- **OS:** Windows 8 or Windows 7
- **Software:**
 - Latest GeForce Display Drivers (www.geforce.com)
 - Latest version of GeForce Experience (Installed with Driver)
- **Routers:** 802.11a/g router (minimum). 802.11n 5 GHz router (recommended).

PC Games Supported by GameStream

Go to <http://shield.nvidia.com/pc-game-list/> to find the latest list of games that provide the best experience for PC game streaming. New games are added frequently.

Streaming non-GameStream Ready Games

NVIDIA officially supports GameStream for over 200 games, but GeForce Experience allows users to manually add and stream nearly any game. Manage your list of manually added games in GeForce Experience under the GameStream section of the **Preferences** tab in GeForce Experience.

1. Open GeForce Experience and navigate to the **Preferences** tab and select **GameStream** from the menu on the left. You will see the following menu that will allow you to add any application to the SHIELD GameStream section of the SHIELD Hub app on your SHIELD .
2. Drag and drop a shortcut to your favorite game or click on the  sign to search your PC for the .exe of the application you would like to add to the GameStream list on SHIELD .
3. You can then click the  icon to edit the name and box art of the applications in your list.
4. Once you have added applications into the list, they will appear on your SHIELD 's GameStream list and can be launched just like any other app. Note that NVIDIA does not configure optimal settings for manually added games, so you may need to adjust in-game settings manually for the best experience.




TIP You can even use this feature to stream your entire PC desktop. To do so, add a shortcut to Windows' Remote Desktop Connection app (c:\windows\system32\mstsc.exe) in GeForce Experience, then select the newly added Remote Desktop tile from SHIELD 's "PC GAMES" tab. From here, you have access to your entire desktop.


Tips for Interacting with Unsupported Games

- SHIELD is a touch screen device that uses mouse emulation for streaming. Any time the user is in a situation where using the mouse would bypass a menu or in-game option that the controller will not operate, simply use the touch screen as the mouse.
- SHIELD has a full virtual keyboard built into the touch screen interface. As with the mouse, if there is a situation that requires a keyboard instead of the controller, use the virtual keyboard by tapping two fingers on the touch screen and tapping the keyboard icon that appears.
- While Streaming a PC game, you can use the Pinch to Zoom and Pan functions to better navigate menus or other in game elements that are hard to see. Simply pinch or expand with two fingers to zoom and use a two finger swipe to pan around while zoomed.

Remote GameStream

GameStream allows you to stream games from your PC to your SHIELD outside of your local WiFi network. Simply log into GeForce Experience and SHIELD Hub using the same NVIDIA account and take your SHIELD with you on the go.


NOTE  NVIDIA recommends Internet bandwidth of 10 Mbps from your PC down to SHIELD and 2 Mbps from SHIELD up to your PC. Your streaming experience may vary depending on the quality of your Internet.

NOTE  Remote GameStream can be optimized by manually lowering your streaming bitrate for Wi-Fi . Doing this will reduce your image quality but may improve overall quality of service. Adjust the bitrate manually to find the sweet spot for your configuration. You can do this by accessing the Advanced GameStream menu in SHIELD Hub. Please refer to the Advanced GameStream Features section of this guide for more information.

If Remote GameStream does not work even after you have signed into GeForce Experience and Shield Hub, you may need to forward the following ports:

UDP: 47998, 4800, 47999, 48010

If Remote GameStream works, but Wake on LAN does not, try setting up port forwarding for UDP port 47998.

NOTE  If you still have issues connecting to your PC directly, make sure your PC has Network discovery enabled. Go to Control Panel > Network and Sharing Center > Change advanced sharing settings and select 'Turn on network discovery.'

Wake on LAN / Remote Log-In

Wake on LAN is a feature that will allow you to wake up your PC on your local network when you want to use GameStream on SHIELD . You no longer need to wake your PC and log-in manually to be able to stream your favorite games. To use Wake on LAN and Remote Log-In:

1. Press the SHIELD button to open the SHIELD Hub and navigate to the **PC GAMES** tab to view the games installed on your paired PCs.
2. When you select a game that you want to launch and start streaming, you will be notified that your PC is asleep and will be woken up.
3. Select **Continue** to wake the PC and launch the game. If your PC has a Windows password, you will be taken to the login screen where you can enter your password remotely. Use the two finger menu to bring up the virtual keyboard to enter your password.



Once you have entered your password, your PC will launch the selected application and begin streaming.

There are several important setup requirements for Wake on LAN:

1. Your motherboard and network adapter must both support Wake on LAN. Depending on the configuration, you may need to ensure that Wake on LAN is enabled in your motherboard BIOS, that Wake on Magic Packet is enabled in Windows and that Ethernet Adapter is properly configured for Wake on LAN support.
 - Depending on your PC and OS, you may need to make sure your PC only wakes up from magic packets, otherwise your PC may wake up inadvertently.
 - Go to Device Manager > Network adapters > [Your Ethernet adapter, ex. Intel] > Power Management and check the option 'Wake on Magic Packet.'
 - In Device Manager > Network adapters > Advanced, enable "Wake on Magic Packet."
2. Your PC must be connected to your router via Ethernet.
3. Your PC must be powered on and in sleep or hibernate mode. Wake on LAN is not supported for PCs that are shut down.
4. To wake up your PC while outside your Local Area Network, you may need to manually open ports depending on your router. See [Remote GameStream](#) for more details.

Advanced GameStream Features

In SHIELD Hub under "SETTINGS" you can access some of the advanced features available to fine tune your GameStream experience. To access these features, make sure you already have a PC connected. In the advanced settings menu, you can manually adjust streaming bit rates, frame rates and elect not to apply Optimal Settings for each game in your streaming list. This provides more control to the user to fine tune your streaming experience.

1. Open SHIELD Hub and navigate to the settings menus in the lower left hand corner.
2. Once in the settings menu, you can access the GameStream-ready PCs menu.
3. Here you can see all of the different PCs you have connected to your SHIELD and their current status. Select accessory settings 
4. In the accessory settings  menu you can select "Quality" to manually change the bitrate at which your stream is delivered both from a Wi-Fi connection and from a wired Ethernet connection. You can also change the target frame rate that the SHIELD will deliver. This provides a lot of flexibility to the power user in how they stream.
5. Also in the accessory settings menu is the "Optimize games" menu where you can manually disable Optimal Settings for a particular game. This allows the user to disable the automatic settings we apply to allow you to tailor specific in-game settings for each game. You can also globally disable or enable Optimal Settings for a particular PC that you have connected to your SHIELD.

Steam Big Picture

Big Picture shows up as a selection in the list of SHIELD-optimized games. Launching it gives you access to your STEAM games—both supported and unsupported—plus the STEAM Store and all the STEAM community features. Supported games are recommended for the best, optimized streaming experience—the latest list of supported games can be found on <http://shield.nvidia.com/pc-game-list/> starting at launch. Unsupported games may work if they have native controller support or you have connected a mouse and keyboard, but will not be optimized for streaming and may have other streaming compatibility issues.

Troubleshooting PC Game Streaming

If you are experiencing issues with streaming games from your PC to SHIELD , try these troubleshooting options:

General Troubleshooting Issues

Not all games have been optimized for PC game streaming to SHIELD. Verify the game you are trying to play is on the list of [supported games](#). It is also recommended that you launch the game at least once on your PC BEFORE launching on SHIELD . Doing this ensure that all of the prerequisites (VC Redirects, DirectX, et al) and the set-up of all DRM features (Games for Windows et al) are completed.

Make sure your PC meets the minimum requirements for streaming.

The requirements for PC Game streaming are very specific. Make sure your GeForce GTX PC meets these requirements and that you have proper drivers and software. See the list of system requirements or go to the **My Rig** tab in [GeForce Experience](#) to confirm that your PC meets the system requirements.

Check Windows and wireless router firewall settings.

Make sure that streaming is not being blocked by a firewall; either from the computer or wireless router. You can either temporarily disable the firewall or add an exception to allow the traffic. You can access Windows Firewall settings through the Control Panel on your PC. For information on other software firewalls or firewalls built into your router, refer to those products' manufacturers.

Check SHIELD Wi-Fi setting.

Make sure that the Wi-Fi setting on your SHIELD is turned **ON** (go to **Settings > Wi-Fi**). Check to make sure SHIELD has successfully connected to the network. Try resetting the Wi-Fi option by turning it OFF and then back ON. Try resetting your wireless access point connection by disconnecting and re-connecting.

Check the internet connection.

Check whether or not you are able to access the Internet on SHIELD and the PC. Try resetting your wireless access point connection if you cannot connect.

Specific Troubleshooting Issues

If SHIELD displays **No available GeForce GTX PCs found**, when scanning for available PCs, try the following:

- Does the PC meet the minimum System Requirements?
- Are your firewall interfering or disabling the connection?
- Is your PC powered on? Are you logged in to your PC?

If any of these checks did not fix the issue, try rebooting both SHIELD and your PC, and logging out and logging back into SHIELD Hub and GeForce Experience.

Bluetooth Keyboard and Mouse Support

There are many Bluetooth keyboards and mice that are available in the marketplace. The SHIELD tablet K1 is an Android-powered device and pairs natively with peripherals that are Bluetooth enabled without a required USB dongle.

NVIDIA has tested the following Bluetooth keyboards and mice and found that they are compatible with the SHIELD tablet K1 :

- Logitech K810
- Microsoft Wedge Mobile Keyboard
- Motorola Wireless Keyboard
- Logitech Tablet Keyboard
- Anker Ultra Slim Mini Bluetooth Keyboard
- Razer Orochi Mobile PC Gaming Mouse
- Gigabyte GM-M7700B
- Microsoft Sculpt Comfort Mouse
- HP X4000b Bluetooth Mouse

A lap desk can be used to make gaming in front of a big screen TV easier when using a keyboard and mouse. The following lap desks are a few recommended solutions:

- LapGear 45492 Deluxe Computer LapDesk
- LapWorks Original Laptop Desk
- LapWorks Futura Gamers LapDesk
- LapGear 45303 Multi-Purpose Jumbo LapDesk

Using GameStream in Console Mode

Console mode can be launched using the application icon  or by connecting a Mini-HDMI cable to SHIELD .

On the HDTV, the Console Mode will display.

If the Mini-HDMI cable is disconnected from SHIELD , a message displays to exit Console Mode.

NOTE Each time you enter or exit Console Mode, SHIELD is reset.

Setup Requirements

- **HDTV**
 - HDTV with HDMI support. Use the Gaming or Sports mode for the HDTV if it supports it to reduce input latency.
- **Bluetooth Controller or Keyboard and Mouse**
 - Bluetooth wireless controller. NVIDIA recommends the Nyko PlayPad Pro.
 - Bluetooth keyboard and mouse. Refer to [Bluetooth Keyboard and Mouse](#) for further details.
- **Cable**
 - Mini-HDMI to HDMI cable
- **Micro USB Ethernet Adapter**
 - Connect a wired Ethernet cable from your router to your SHIELD. NOTE: There are many different types of Micro USB Ethernet adapters available in the marketplace. The adapter must be a male Micro USB connector to a female Ethernet connector.

Configure GameStream for 1080p

1. Connect an Ethernet cable to your router.
2. Connect the Ethernet cable from your router into a Micro USB Ethernet adapter. Connect the Micro USB end into the Micro USB port on the back of your SHIELD.



A Micro USB Ethernet adapter like the one above can be used, but the SHIELD portable cannot be charged with this type of adapter. To charge the SHIELD portable while using Ethernet, a Micro USB Y-Cable with input for Micro USB power and full-size USB Ethernet will need to be used. Of course, a full-size USB2 to Ethernet adapter will be needed in conjunction with the Y-Cable.



Micro USB Y-Cable



Standard USB Ethernet Adapter

Connect the cables in the following order (the order is important):

- A. Plug an Ethernet cable from the Router.
- B. Plug the USB Ethernet Adapter into the Micro USB Y-Cable.
- C. Plug the SHIELD AC Adapter into the Micro USB Y-Cable.
- D. Plug the male Micro USB connector on the Y-Cable to SHIELD.

3. Launch Console Mode.

GeForce Experience

[GeForce Experience](#) is an application from NVIDIA that optimizes your PC in two key ways.

1. GeForce Experience automatically notifies you of new [NVIDIA drivers](#) and downloads them for you. NVIDIA is constantly working to improve its drivers. New drivers improve game performance, add new features, and fix bugs.
2. GeForce Experience optimizes graphics settings in your games based on your hardware configuration. NVIDIA performs extensive game testing for various combinations of GPUs, CPUs, and monitor resolutions and stores this information in the NVIDIA cloud. GeForce Experience connects to the NVIDIA Cloud and downloads [optimal playable settings \(OPS\)](#) for your games tailored specifically to your PC.

The result is that your PC is always kept up to date and optimized for the latest games. To utilize optimized PC games on your SHIELD device, you will need to have GeForce Experience installed on your PC.

For GeForce GTX 900 Series GPUs, GeForce Experience adds digital super resolution mode, 4K video recording, wired PC controller support for SHIELD wireless controller, and improved ShadowPlay performance of SLI configurations.

For more information on GeForce Experience, go to <http://www.geforce.com/geforce-experience>.

NVIDIA SHIELD Controller





Your NVIDIA® SHIELD™ controller works with your SHIELD device using Wi-Fi Direct for exceptional responsiveness and immersion in today's hottest games. It is the first-ever precision controller designed for both Android™ and PC gaming. Use the SHIELD controller when connected to a TV for multi-player games. You can connect up to four SHIELD controllers to your SHIELD device.

The controller includes the following features:

- Console-grade controls
- Ultra-responsive Wi-Fi performance
- Stereo headset jack with chat support
- Microphone for voice search
- Touch pad for easy navigation
- Rechargeable battery and USB charging cable

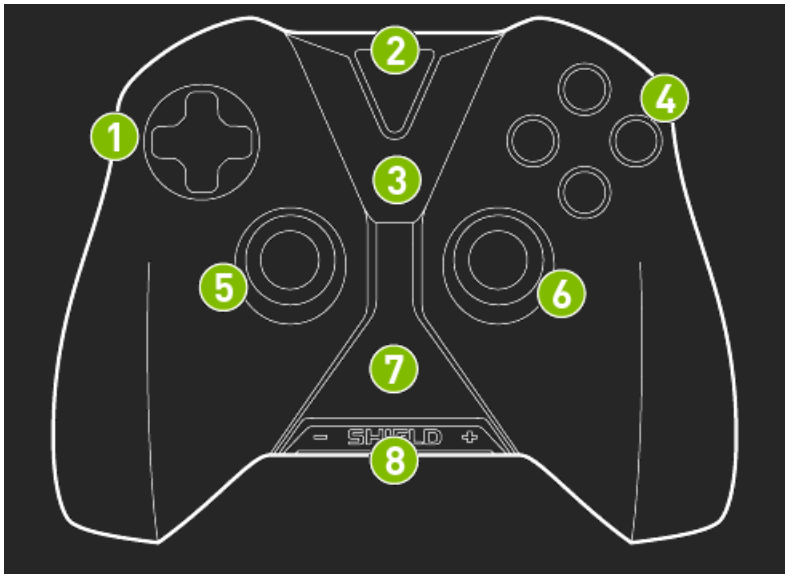
For detailed information on the SHIELD controller, refer to documentation that comes with the controller.

Connect SHIELD Controller to your SHIELD Tablet K1

1. Verify that your SHIELD tablet K1 has Wi-Fi turned on. It does not have to connect to a network, but Wi-Fi must be turned on.
2. Open the SHIELD Accessories app  on your SHIELD device.
3. Tap the NVIDIA button  on the wireless controller. The NVIDIA button flashes to show that the controller is in connecting (pairing) mode.
If the NVIDIA button is not flashing, hold the NVIDIA button until it starts flashing, and then release.
4. When the controller is connected, you can press  to open the Quick Guide, Settings, or Help. A controller icon  shows in the status bar on your SHIELD device. This icon indicates that the controller is on and connected. The white portion of the icon indicates the amount of charge left in the controller.
5. **Optional:** You can connect up to four SHIELD controllers to your SHIELD device. Repeat Steps 1 through 4 to connect each additional controller.

SHIELD Controller Overview

The SHIELD controller box includes one SHIELD controller, one USB charging cable, one Support Guide, and one Quick Start Guide.



1	D-pad
2	NVIDIA button
3	Android navigation and Start buttons
4	A-B-X-Y buttons
5	Left thumbstick
6	Right thumbstick
7	Touchpad
8	Volume control

How to Turn On the Controller

Tap the **NVIDIA**  button.

How to Turn Off the Controller

Hold the **NVIDIA**  button for 6 seconds.

The controller automatically turns off when you turn off the SHIELD device the controller is connected to. The controller also automatically turns off after 10 minutes of idle time. The controller stays on during video and music playback on the SHIELD device. This allows the controller to be active to control media playback.


GeForce NOW



From the **SHIELD Hub**, main menu, launch **GeForce NOW** for immediate access to more than 50 popular PC games from NVIDIA cloud gaming supercomputers to your SHIELD tablet at up to 1080p video resolution and 60 frames per second. You can even purchase newly released games from the store.



NOTE To stream games at 720p resolution and 30 frames per second, you need a broadband minimum download speed of 5 Mbps (10 Mbps recommended). To stream games at 1080p resolution and 60 frames per second, you need a broadband minimum download speed of 30 Mbps (50 Mbps recommended). Ethernet connectivity is recommended for the best experience.

NOTE  Navigate through **GeForce NOW** using the D-pad or left thumbstick on the game controller.

LOGIN

When you launch **GeForce NOW** for the first time, you will be prompted to log in.

You have two options for logging in:

- (1) By creating an NVIDIA account or
- (2) Logging in with the Gmail account that is associated with your SHIELD tablet.

NVIDIA GeForce NOW

Settings lets you edit GeForce NOW account information, test your broadband connection and specify preferred **Frame rate** and **Max resolution** in "Streaming quality."

Using On-Screen Controls

On-screen controls provide users with additional controls necessary to navigate some GeForce NOW games. To access the on-screen controls, long-press the Start button or do a 2-finger tap on the touchscreen.

The on-screen controls will bring up a menu screen with three options: Keyboard, Quit, and three-dot menu.




If you need to input information into a dialog, use the "Keyboard" selection. If you want to quit the game, select "Quit game."

Most of the navigation options are straightforward. Clicking the three-dot menu > Help will display the full list of available functions.

How to Use NVIDIA Lasso Capture

NVIDIA Lasso Capture provides a quick and easy way to take screenshots of all or part of your screen. You can also annotate and share the captures.


Captures are stored in Photos  with your other photos and images. View, edit, and share captures just like you would any other image.

Captures

How to Capture a Screenshot of the Whole Screen

1. In the Navigation bar, tap **Lasso Capture** .
2. Tap **Screenshot** .
3. Tap **Save**. The capture is saved to Photos .

How to Capture a Rectangular Region


1. In the Navigation bar, tap **Lasso Capture** .
2. Tap **Rectangular Region** .
3. Drag your finger or a stylus around the area you want to capture.
4. Tap **Save**. The capture is saved to Photos .

How to Capture a Free-Hand Region

1. In the Navigation bar, tap **Lasso Capture** .
2. Use your finger or a stylus to surround the area you want to capture.
3. Tap **Save**. The capture is saved to Photos .

How to Share a Capture

You can share the capture without saving it to the gallery.

1. Take a capture. Do not tap **Save**.
2. Tap **Share** .
3. Tap the sharing method that you want to use.
4. Follow the prompts to send the capture.


How to Save a Capture to PDF

Use ES File Explorer to open the PDF for viewing and annotating.

1. Take a capture. Do not tap **Save**.
2. Tap **Share** .
3. Tap **Convert to PDF**.

How to Take a Full-Screen Screenshot

Press and hold the device's **Power** button and **Volume Down** button simultaneously for a few seconds. A snapshot sound indicates that the screen has been captured.

The capture is saved to **Photos** .

How to Use NVIDIA Dabblers



NVIDIA® Dabblers™ is a drawing and painting app that is optimized for use with an NVIDIA SHIELD tablet K1. An optional Stylus is available for purchase to enhance your Dabblers experience.

The first time you open NVIDIA Dabblers, a tutorial shows you how to use all the features of the app. NVIDIA Dabblers also includes help tips that you can show or hide as needed.

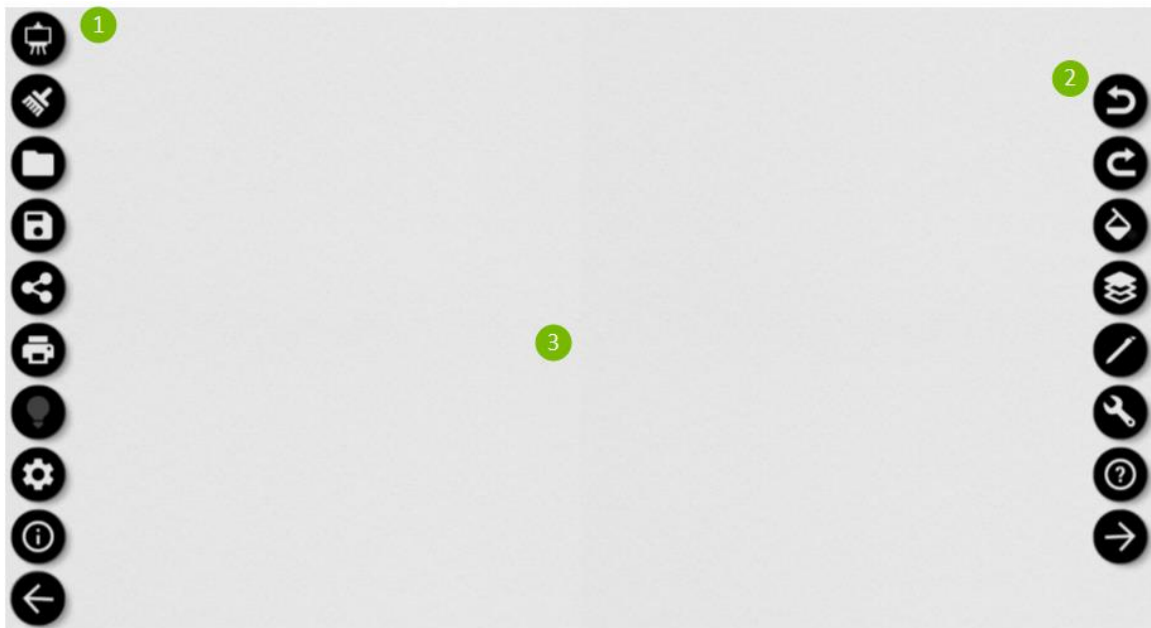
How to Open NVIDIA Dabblers

1. Tap **All Apps** .
2. Tap **NVIDIA Dabblers** .

The tools may or may not be displayed along the sides of the screen.







To display the tools, touch the small arrows in the lower right  and left  corners. The tools slide out from each side.

Learn the NVIDIA Dabblers Workspace



- 1 General Toolbar** (left) provides actions such as **Load, Share, Save,** and **Print.**
- 2 Canvas Toolbar** (right) provides background settings and several brushes and drawing .
- 3 Workspace.** The Workspace displays the paper texture or background image that you have chosen for your project.

How to Use the NVIDIA Dabblers Tools













	Slides out the General Toolbar (left)
	Slides out the Canvas Toolbar (right)
	Closes the General Toolbar (left).
	Closes the Canvas Toolbar (right) .
	Undo recent task
	Redo recent task





Palette. Displays a palette of colors and tools to choose from for your paint brush and pen. When you select this icon, it turns green


and displays the palette of colors. Select a color and begin. You can change colors repeatedly. When you are finished, tap the icon again and the palette closes and the icon returns to its normal color.


	<p>Palette of colors. Select RGB To display the RGB wheel. You can also swipe your finger across the palette left/right to see the palette or RGB color wheel. There are also blank palette spots to save colors you have created.</p>												
	<p>Adjust the thickness of the pen/finger/brush stroke. Use your finger (or Stylus) to move the ball left/right to increase/decrease the thickness of the stroke</p> <p>Adjusts the amount of paint that is deposited on the canvas. Use your finger (or Stylus) to move the ball left/right to increase/decrease the amount of paint on the brush.</p> <p>Adjusts mixing ratios of current color and colors on the canvas</p> <p>The actual brush radius is controlled by the pressure and angle of the stylus tip on the touchscreen.</p>												
	<table border="1"> <tr> <td data-bbox="649 1442 766 1495">Brush</td> <td data-bbox="766 1442 863 1495"></td> <td data-bbox="863 1442 1378 1495">Applies gravity to your watercolor depending on the orientation of the tablet</td> </tr> <tr> <td data-bbox="649 1495 766 1547">Eraser</td> <td data-bbox="766 1495 863 1547"></td> <td data-bbox="863 1495 1378 1547">Instantly dries a canvas you have painted</td> </tr> <tr> <td data-bbox="649 1547 766 1600">Pen</td> <td data-bbox="766 1547 863 1600"></td> <td data-bbox="863 1547 1378 1600">Locks/Unlocks the level of brush wetness</td> </tr> <tr> <td data-bbox="649 1600 766 1652">Pencil</td> <td data-bbox="766 1600 863 1652"></td> <td data-bbox="863 1600 1378 1652"></td> </tr> </table>	Brush		Applies gravity to your watercolor depending on the orientation of the tablet	Eraser		Instantly dries a canvas you have painted	Pen		Locks/Unlocks the level of brush wetness	Pencil		
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Pencil													


	Shows the About Box that gives information on the Dabblers Application.
	Displays the Layer menu. When you select this icon, it turns green and displays a menu to manage the layers of your canvas. When you are finished, tap the icon again and the palette goes away and the icon returns to its normal color
	 Stylus only mode is active for canvas  Stylus only mode is deactivated Stylus only mode. When the icon is green, you are in Stylus only mode and the canvas only recognizes a Stylus.. When you tap again and the icon turns back to black and white, Stylus only mode is deactivated and the canvas recognize any other implement (finger, brush, etc...)
	Tools. Tapping the Tools icon turns it green and displays two tool icons .
	Toggles vector shapes on and off.
	Toggles vector shape mode (squares, triangles, circles, etc.) on and off.
	Help information. Tap this icon to turn it green and then you can tap any other icon and a description of that icon is displayed. Tap Help again to exit Help mode.
	Art Style. Tap this icon to see different painting styles to choose from.
	Sketch Mode
	Watercolor painting mode
	Oil painting mode
	Clear canvas. You are asked if you want to save, Yes or No.
	Load a saved canvas or any curated canvas from the NVIDIA servers.
	Save your current canvas to local storage.




 [Share your work](#) .

 Record and share your canvas painting session.

 Share your canvas as a Dabblar File.


 Share your canvas as a JPEG.


 Print your canvas on the cloud (this requires a Google account)


   Setting Icon. Displays the pressure sensitive sliding scale that allows you to fine-tune how pressure affects the brush radius.


Create Artwork


NVIDIA Dabblar Painting Styles

To begin a canvas, select the style of art you wish to do by tapping the Art Style icon  .


Choose a style. Depending on the style chosen, different tools are displayed when the palette  is expanded.

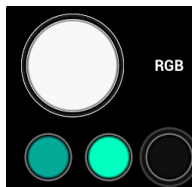
 **Sketch**. Sketch includes the marker, pencil, and eraser tools.

 **Watercolor**. Watercolor includes all of the drawing and painting tools except the spatula. Gravity, instant-dry, and water level features are only available in Watercolor.

 **Oil**. Oil includes all of the drawing and painting tools. The spatula tool is only available in Oil.

How to Mix Colors

1. Open the **Palette** .
2. Tap a color.
3. Touch the Color Mixer and move your finger or stylus in a circle.




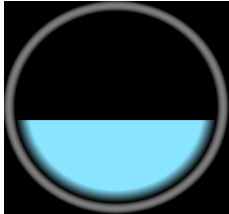
The new color mixes with the previously selected color. Mix *clockwise* to add more of the new color or *counter-clockwise* to retain more of the previous color.

4. Double tap to clear mixer back to white color.


How to Adjust the Water Level in a Watercolor


The Dabblor replicates the feel of watercolors by providing adjustable water levels. The Water level tool is only available in Watercolor Mode.


To increase or decrease the wetness of the paint, open the **Palette**  .



Use your stylus or finger to adjust the water level up/down to determine the wetness of the brush.

To lock the water level you select, tap the lock icon .

To dry your canvas so the colors do not run, tap the dry icon .

To run and mix your colors on the canvas, tap the gravity  and move the tablet.

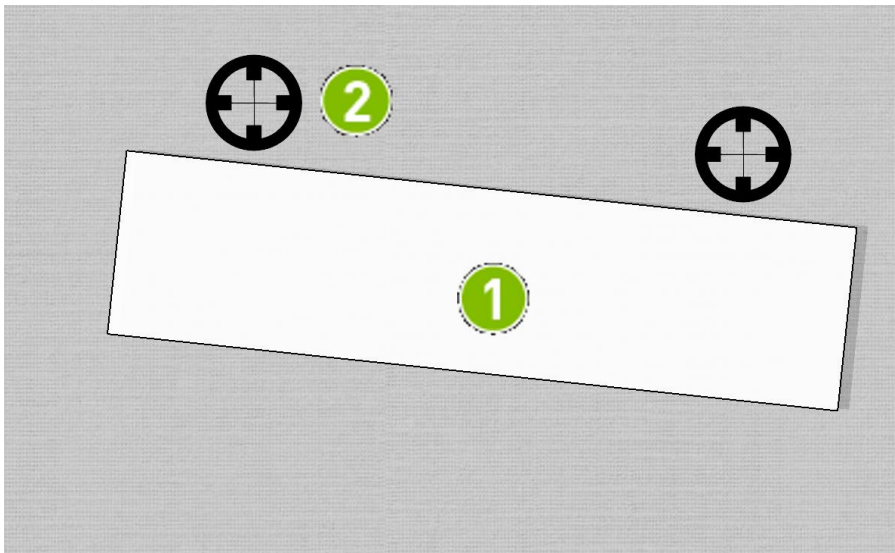
How to Use Shape Recognition

Shape recognition mode detects when you are drawing a circle, square, or other geometric shape and automatically corrects the shape.

In the Toolbar, tap  and **Shape Recognition**  . Tap again to turn off shape recognition.

How to Add Vector Shapes

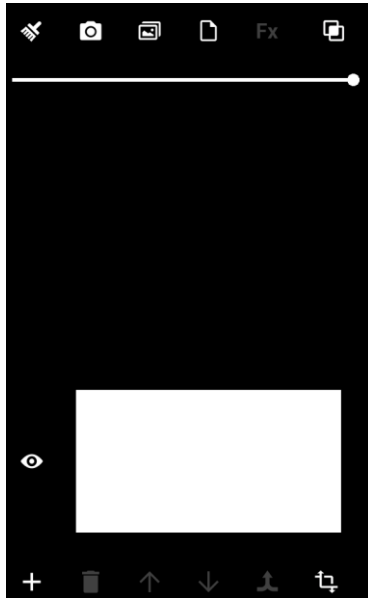
In the Toolbar, tap  and **Vector Shapes** .




- 1 Shape.** The vector shape currently in use.
- 2 Toggle / Transform.** Tap on a handle to cycle through available vector shapes (square, triangle, star, circle, etc..).
Drag a handle to rotate the vector shape about the other handle.
Drag both handles to move, scale and rotate the vector shape.

Layers

Accessing Layer Operations



To show or hide layer operations, tap the **Layers**  icon.

The slider adjusts opacity of the selected layer.



Clear. Clears selected layer(s)

Camera. Takes a picture to be applied as the canvas. Opens the native Camera app.

Image. Opens **Photos** to use an existing image as the canvas.

Paper Selection. Toggles paper selection for background

Filter. Swipe through existing filters that can be applied to the imported background image

Blend. Toggles blending function menu for selected layer

Visibility. Toggles visibility of a layers.

Add. Adds a new layer

Delete. Deletes designated layer.

Move up. Moves selected layer up in order.

Move down. Moves selected layer down in order.

Merge. Merge the selected layer with the next lowest layer.

Crop

How to Zoom and Move Canvas

Use a two-finger pinch gesture to zoom the canvas view in and out. A two-finger swipe gesture will move the canvas about the view window.

How to Share

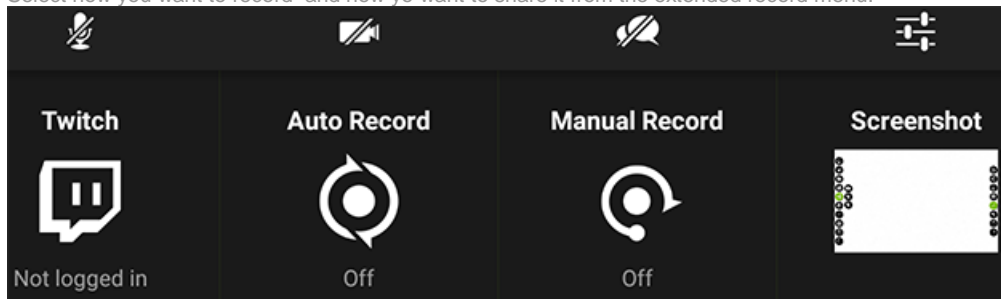
Video Recording

1. In the Toolbar, tap **Share**  to expand the tools



2. From the expanded tools, tap **Record** .

3. Select how you want to record and how you want to share it from the extended record menu.



Tap to turn the microphone on for the next recording/broadcast so you can narrate



Tap to enable the camera for the next recording/broadcast



Tap to enable chat for the next recording/broadcast



Tap to open the **Share Settings** menu

Twitch: Share your canvas to the Twitch app for sharing

Auto Record: Automatically record as you paint/draw

Manual Record: Manual record your painting/drawing process with control over start/stop

Screenshot: Takes a screenshot of your canvas and saves it to either the Photos folder or you can save and share

File Sharing

1. In the Toolbar, tap **Share** .

2. Select from the following actions:



Save the canvas as a Dabblar file

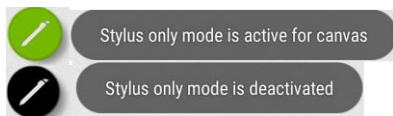


Save the canvas as a .jpeg file

Global Effects

How to Dynamically Adjust Lighting

To adjust the light direction on the canvas, tap **Dynamic Lighting** . A circular slider is shown, which controls the direction of incident light.



Stylus only mode is active for canvas

Stylus only mode is deactivated



Stylus-Only Mode

To toggle stylus-only mode, tap the **Stylus** icon. When the stylus-only mode is enabled, the icon is green and finger touches on the canvas are ignored. Only stylus inputs are accepted as drawing actions. When the stylus-only mode is disabled, you can only interact with the tools using finger touches.

How to Use SHIELD Camera

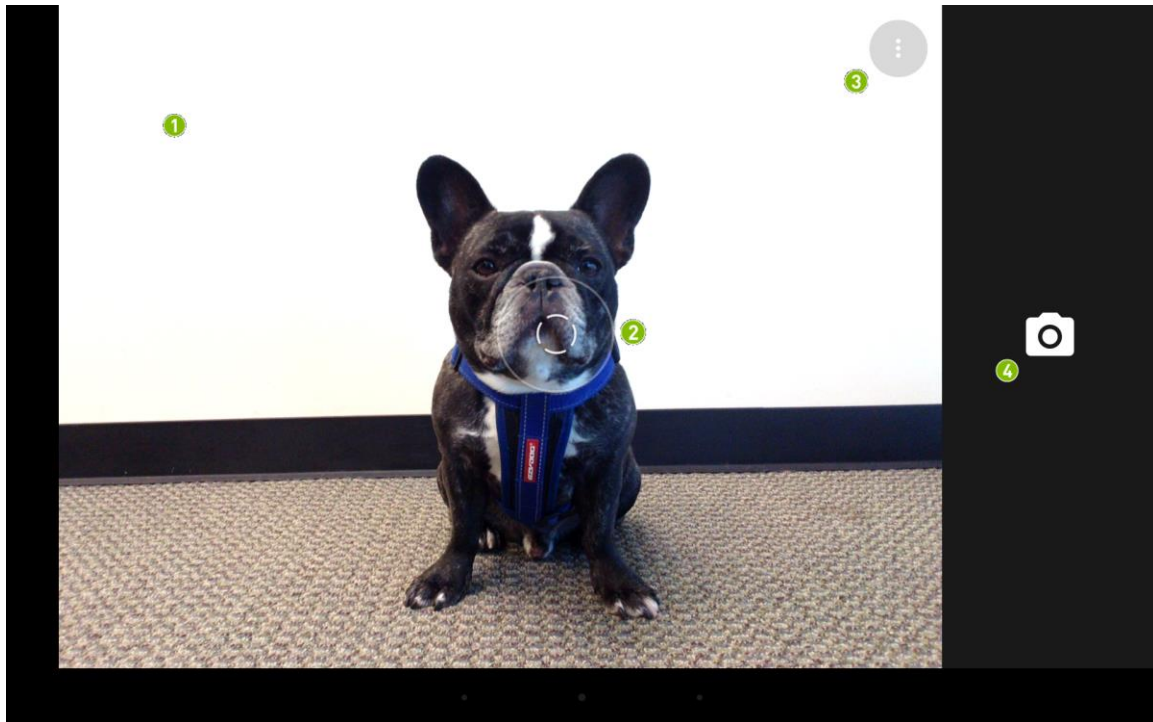
NVIDIA® SHIELD Camera™ is a powerful camera application with a simple user interface for adding memorable high-quality photos and videos that are easily shareable with your friends and family.

How to Open SHIELD Camera

1. Tap All Apps 
2. Tap SHIELD Camera 

Learn the SHIELD Camera Preview


When you launch SHIELD Camera, the first screen you see is the camera preview.



- 1 Main viewport
- 2 Focus tool - Tap on the subject you want to focus on.
- 3 Three-dot menu - Tap to open more camera mode options. See [The Three Dot Menu](#) section for details.

4 Shutter button - Tap this button to take a photo.

How to Take Photos

In the main preview, tap the shutter button  to take a photo. Hold the shutter button to "burst" capture multiple frames. Photos are automatically saved to the SHIELD tablet K1 and can be viewed by swiping left on the preview.

Photos are also saved to the **Photos**  app on your SHIELD tablet K1.

Zoom in/out

To zoom in to a subject, use a two-finger spread. To zoom out of a subject, use a two-finger pinch.

Using the volume button








You can also take pictures with the + or - volume button on your SHIELD tablet K1.

Image capture while filming

To capture an image while in [Video Camera](#) mode, touch anywhere on the [main viewport](#) while recording.

Three-dot Menu in Detail

By opening the three-dot menu in the preview, you can manage a number of different camera functions.

	Back / Front camera - Activates the Back / Front camera mode. Default is Back camera.
	Motion stabilization - Toggles motion stabilization. OFF by default
	Gridlines - Turns gridlines on and off. OFF by default
	Countdown timer - Enables a countdown timer for automated photo taking. Possible timer values are: 2, 5, and 10 seconds. OFF by default
	Manual exposure compensation - Can be set from -2.0 to 2.0
	White balance - Enables a number of different filters: Sun, Tungsten, Fluorescent, and Cloudy.
	High Dynamic Range (HDR) - Toggles High Dynamic Range mode. OFF by default. HDR takes longer to take the picture because it is actually taking three pictures of the scene based on light and range and compiling them into one picture. Use HDR when you are taking pictures of landscapes, portraits in sunlight, and low-light and back-lit scenes. HDR is not recommended for pictures with movement, high-contrast scenes, or scenes with vivid colors.



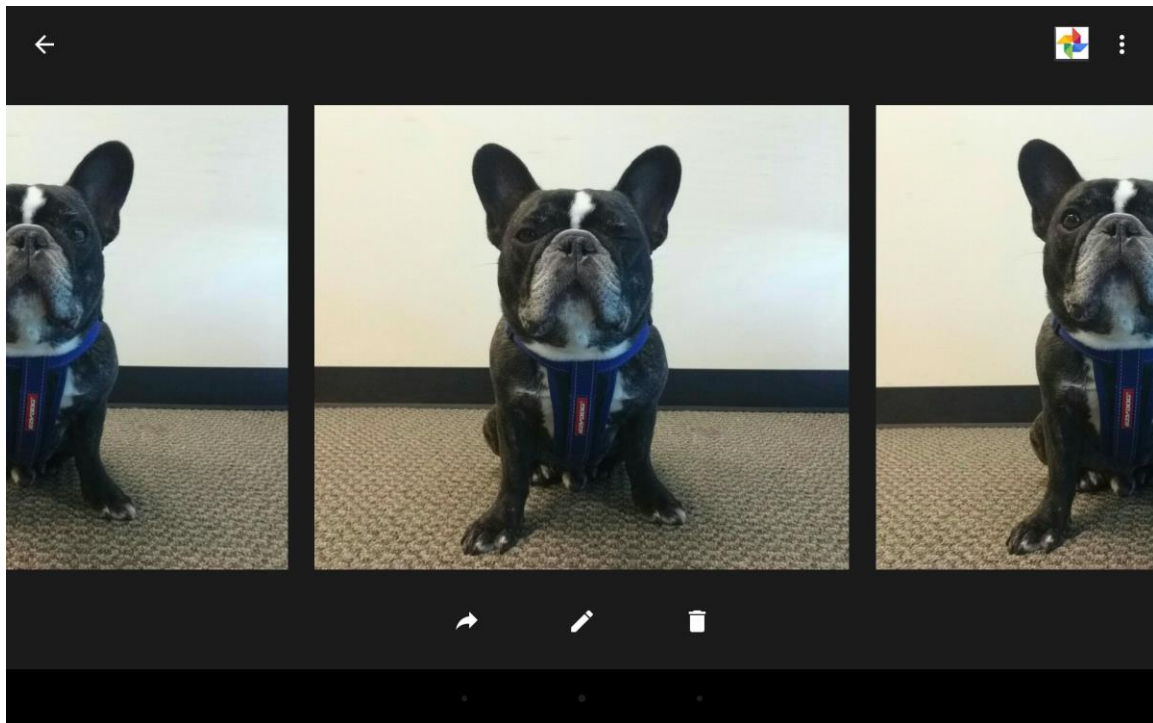
HDFX

High Definition FX (HDFX) - Enables a variety of real-time filters to give your photos special visual effects.

NOTE Tap and hold any of the icons above to obtain help.

How to View Photos




You can view photos in the gallery by swiping left on the main viewport. To view more recent photos, continue swiping to the left.










The toolbar at the bottom of the photo viewer, from left to right, are the tools to **Share**, **Edit**, and **Delete** your photo.

Mode Setting

Swiping right on the main viewport opens the camera modes menu. The following modes are available:











	Camera - Switch to Camera mode. This is the default mode.
	Panorama - Switch to Panorama mode. To take a panoramic photo, touch the  symbol, and slowly move the camera along the path of the panorama. The status bar on the bottom will fill during your movement to indicate the maximum field that you can shoot. Moving the camera too quickly during this shot will degrade the quality of the final photo.





	Slow Motion Video - Switch to Slow Motion Video mode.
	Video - Switch to Video mode. Touch the  symbol to start recording. Touch the  symbol to stop recording.
	QR Code Scanner - Switch to QR Scanner mode. Simply hold the camera over the QR code to scan.
	Settings - Open general settings menu.


NOTE  Tap and hold any of the icons above to obtain help.

HDFX

High Definition FX, or HDFX, settings give you the ability to use special effect filters for taking your photos. They are summarized as follows:

	HDFX - HD Effects Off
	Enhanced - Sharpens edges of photo subjects. Recovers washed-out details. Adds crispness to scenes. Good for general purposes.
	Vivid - Similar to Enhanced. For scenes such as sunrises, sunsets, and foliage, for example, this gives your photo a warmer look. Increases saturation.
	Dramatic - Use this effect to accentuate details in a scene.
	Beauty - Applies beautification filters to the photo.
	Stained glass - A stylized effect that divides the picture into numerous, tunable polygons. Good for a 'mystery image,' that has the viewer guess, by starting out with a low block-count and refining the image with progressively more blocks. This option attempts to mimic the effect of stained-glass portraits.
	Cartoon - A stylized effect that turns your image into a cartoon or abstract photo. Works well with strong lines. To control how many lines are used, adjust the threshold (smaller = more lines).
	Oil - A stylized effect that smooths out lines and contrast.
	Sketch - A stylized effect that turns your picture into a black and white drawing. Good for architectural or other strong contrast scenes like computer desks, streets, signs, or rooms in a house.
	Tilt shift - By exaggerating the depth of field and using the concept of "miniature faking," this effect gives your photo the illusion that is of a much smaller scale.

	Circular blur - Effect that helps guide the viewer's focus to a desired item in the scene. Good for focusing the viewer on a person in the scene. Often used with a softer strength to make a landscape or sunset seem softer around the point of focus.
	Radial blur - A stylized effect that adds energy to night city pictures of building and cars, for example. Can also be used for "warp drive" effects and extraterrestrial scenes.
	Half Tone - Stylized effect that divides the image into a series of black and white dots. Good for making images look like old newspaper photos. Try increasing the number of dots to add detail.
	Light streaks - Stylized effect that makes your subject look like an X-ray image.

Use the slider  to fine-tune HDFX properties such as brightness, contrast, saturation and block count.

Camera Settings

Some important features can be configured in your SHIELD Camera **Settings** menu. They are summarized as follows:

- **Advanced** - These options affect the functionality of the mode [Setting](#) menu.
 - Manual exposure - Shows exposure offsets
 - Advanced HDFX - Exposes HDFX tuning knobs
 - Reset Clings - Lets the user re-display the help overlays
- **AOLTM - Always On Local Tone Mapping**
On by default. This setting will scale the dynamic range of the image while preserving the natural appearance of the image captured.
- **Output image format** - Sets the image format of photos, which includes JPEG, JPEG + NVRAW, NVRAW, JPEG + DNG, DNG.
- **Resolution & quality** - Lists the available resolutions, which can be set for back and front cameras individually, and also for both still images and videos.
- **Save location** - Records the location of your photos as a stamp.
- **Shutter sound** - Toggles the sound effect of the shutter.
- **Collect analytics** - Toggle to opt in or out.
- **Control camera with volume button** - Toggle to allow volume button to activate camera shutter or start/stop video recording

Supported Image Formats

The following image formats are supported::

- **JPEG**
Commonly used method of compression for digital images..The degree of compression can be adjusted, allowing a selectable trade-off between storage size and image quality. Decreasing compression increases quality.
- **NVRAW**

- **DNG**
Digital Negative is an Adobe format. DNG is based on the TIFF/EP formats and uses significant metadata.
- **JPEG + NVRAW**
- **JPEG + DNG**

Tips and Shortcuts

Controlling shutter with volume button

Hold Shutter button to “burst” capture

Two finger zoom

Touch to capture image while filming vide

Explain how exposure and focus work. When the user firsts composes a scene, a focus ring will appear over the image in the center. Both focus and exposure are measured there. The user can change where focus and exposure are measured by touching the screen. After 5 seconds, focus and exposure return to the center of the screen.

From user perspective, what does AOLTM do and why different than HDFX,
Same for HDR vs AOHDR (see **Documentation SHIELD Camera #3.msg** attached for details and links)

HDR/ AOHDR: As a user,
which one should I use? How can we make this easier for users to understand? Examples would be AOHDR for fast action as that'll probably cause less ghosting and normal HDR for static scenes.

SHIELD Legal

SHIELD LEGAL

Regulatory

[Health and Safety Information](#)

[SHIELD tablet Compliance](#)


health and safety information

important safety information

NVIDIA products are designed to operate safely when installed and used according to the product instructions and general safety practices. The guidelines included in this document explain the potential risks associated with equipment operation and provide important safety practices designed to minimize these risks. By carefully following the information contained in this document you can protect yourself from hazards and create a safer environment.

This product is designed and tested to meet IEC-60950-1, the Standard for Safety of Information Technology Equipment. This also covers the national implementation of IEC-60950-1 based safety standards around the world e.g. UL-60950-1. These standards reduce the risk of injury from the following hazards:

- **Electric shock:** Hazardous voltage levels contained in parts of the product
- **Fire:** Overload, temperature, material flammability
- **Mechanical:** Sharp edges, moving parts, instability
- **Energy:** Circuits with high energy levels (240 volt-amps) or potential as burn hazards
- **Heath:** Accessible parts of the product at high temperatures
- **Chemical:** Chemical fumes and vapors
- **Radiation:** Noise, ionizing, laser, ultrasonic waves

Retain and follow all product safety and operating instructions. Always refer to the documentation supplied with your equipment.  Observe all warnings on the product and in the operating instructions.

Read all safety information below and operating instructions before using the SHIELD tablet to avoid injury.



WARNING: FAILURE TO FOLLOW THESE SAFETY INSTRUCTIONS COULD RESULT IN FIRE, ELECTRIC SHOCK OR OTHER INJURY OR DAMAGE.

ELECTRICAL EQUIPMENT CAN BE HAZARDOUS IF MISUSED. OPERATION OF THIS PRODUCT, OR SIMILAR PRODUCTS, MUST ALWAYS BE SUPERVISED BY AN ADULT. DO NOT ALLOW CHILDREN ACCESS TO THE INTERIOR OF ANY ELECTRICAL PRODUCT AND DO NOT PERMIT THEM TO HANDLE ANY CABLES.

To reduce the risk of bodily injury, electric shock, fire, and damage to the equipment, observe the safety labels included on the equipment.

symbols on equipment

This symbol in conjunction with any of the following symbols indicates the presence of a potential hazard. The potential for injury exists if warnings are not observed. Consult your documentation for specific details.



This symbol indicates the presence of hazardous energy circuits or electric shock hazards. Refer all servicing to qualified personnel.



WARNING: To reduce the risk of injury from electric shock hazards, do not open this enclosure. Refer all maintenance, upgrades, and servicing to qualified personnel.

Headset/Earphone volume level notice



WARNING: To prevent possible hearing damage, do not listen at high volume levels for long periods.

general precautions

To reduce the risk of electric shock, personal injury, or damage to the equipment, observe the following precautions:

- Follow all cautions and instructions marked on the equipment.
- Do not bend, drop, crush, puncture, incinerate, or push objects into openings of the gaming console.
- Do not connect or disconnect any cables or perform maintenance or reconfiguration of this product during an electrical storm.
- Do not use the SHIELD tablet in rain or near sink, or other wet locations. Take care not to spill any food or liquid into the console. In case the SHIELD tablet gets wet, unplug all cables and turn off before cleaning, and allow it to dry thoroughly before turning it on again.
- Do not expose the SHIELD tablet to any gas which is not normally contained in the atmosphere. It may cause mis-operation or defects.
- Never turn on any equipment when there is evidence of fire, water, or structural damage.
- Place the product away from radiators, heat registers, stoves, amplifiers, or other appliances that produce heat.
- Never force a connector into a port. Check for obstructions on the port. If the connector and port don't join with reasonable ease, they probably don't match. Make sure that the connector matches the port and that you have positioned the connector correctly in relation to the port.
- If you use an AC Power Adapter to charge the gaming console, make sure the power adapter is fully assembled before you plug it into a power outlet. Then insert the AC Power Adapter firmly into the power outlet. Do not connect or disconnect the AC Power Adapter with wet hands.
- Operate the AC adapter in a ventilated area.
- When you are using the NVIDIA SHIELD tablet or charging the battery, it is normal for the system and/or AC power adapter to get warm.
- Do not use conductive tools that could bridge live parts.
- Do not make mechanical or electrical modifications to the equipment.
- Never attempt to repair the SHIELD tablet yourself. This device does not contain any user-serviceable parts. Do not attempt to open, disassemble, or remove the battery. You run the risk of electric shock.
- To clean the display, use a soft, lint-free cloth. If necessary, breathe upon the display surface and wipe off immediately and softly. Avoid getting moisture in openings. Don't use window cleaners, household cleaners, aerosol sprays, solvents, alcohol, ammonia, or abrasives to clean the display.
- Operate the SHIELD tablet in a place where the temperature is always between 5 and 30°C (41 to 86°F).
- Store the SHIELD tablet in a place where the temperature is always between 0 and 35°C (32 to 95°F) with relative humidity of 70% or lower. When taking the device from a low temperature condition, allow the device to reach room temperature before turning the power on.
- Use this product only with approved equipment and/or accessories
- If the product sustains damage requiring service, disconnect the product from the AC electrical outlet and refer servicing to an NVIDIA authorized service provider.



LITHIUM BATTERY WARNING: THIS GAMING DEVICE CONTAINS A NON-USER-SERVICEABLE LITHIUM-ION BATTERY PACK. THERE IS RISK OF EXPLOSION, FIRE, BURN OR LEAKING WHICH CAN BE CAUSED BY IMPROPER CHARGING , SHORTING OF THE BATTERY PACK, CRASH DAMAGE OR OTHER MISUSE. ALWAYS USE CHARGERS DESIGNED SPECIFICALLY FOR USE WITH THIS GAMING DEVICE. DO NOT ATTEMPT TO DISASSEMBLE, REPLACE, OR OTHERWISE ATTEMPT TO ACCESS THE BATTERY PACK. CONTACT NVIDIA CUSTOMER SUPPORT FOR REPAIR OR REPLACEMENT INFORMATION. RECYCLE THE DEVICE ACCORDING TO LOCAL RULES AND REGULATIONS. CONTACT YOUR LOCAL WASTE DISPOSAL/RECYCLE FACILITY.

POWER RATING

5-16 V DC, 2 A

SHIELD Tablet Compliance

NVIDIA SHIELD tablet is compliant with the regulations that are listed in this section.

Compliance marks, including FCC and IC IDs can be found on SHIELD TABLET by going to **Settings > About tablet > Regulatory Information**

United States

Federal Communications Commission (FCC)



FCC ID: VOB-P1761WX (P/N 940-81761-2500-xxx WIFI)

FCC ID: VOB-P1761WX CONTAINS FCC ID: VOB-E1729 (P/N 940-81761-2500-xxx LTE)

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including any interference that may cause undesired operation of the device.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Warning: The FCC requires that you be notified that any changes or modifications to this device not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Caution: Within the 5.15 to 5.25 GHz band (5 GHz radio channels 34 to 48) this device is restricted to indoor operations to reduce any potential for harmful interference to co-channel Mobile Satellite System (MSS) operation

RF Radiation Exposure Statement:

The SHIELD tablet has been tested and complies with FCC RF radiation exposure limits set forth for an uncontrolled environment when used with the NVIDIA accessories supplied or designated for this product. During testing, the SHIELD tablet was placed in positions that simulate use against the body. The use of any other accessories may not ensure compliance with FCC RF exposure guidelines.

FCC ID Change Notice:

Effective with software release 517.1619, the FCC ID of this device is changed to VOB-P1761WX. The electronic label supersedes the physical label on the device. The FCC ID can be found on the Regulatory Information page in **Settings > About tablet**.

Underwriters Laboratories (UL)



I.T.E E204896

California Energy Commission (CEC)



This product meets the applicable energy efficiency requirements for a battery charging system.

Canada

Industry Canada (IC)

IC: 7361A-P1761W (P/N 940-81761-2500-xxx WIFI)

IC: 7361A-P1761W CONTAINS IC: 7361A-E1729 (P/N 940-81761-2500-xxx LTE)

CAN ICES-3(B)/NMB-3(B)

This device complies with RSS-210 of the Industry Canada Rules. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Ce dispositif est conforme à la norme CNR-210 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet aux deux conditions suivantes: (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

RF Radiation Exposure Statement:

SHIELD tablet has been tested and complies with IC RSS 102 RF radiation exposure limits set forth for an uncontrolled environment when used with the NVIDIA accessories supplied or designated for this product. During testing, the SHIELD tablet was placed in positions that simulate use against the body. The use of any other accessories may not ensure compliance with IC RSS 102 RF exposure guidelines.

Déclaration d'exposition aux radiations:

La tablette SHIELD a été testée conformément aux normes d'exposition d'émission RF de la IC RSS 102 pour un environnement non contrôlé lors d'utilisation avec les accessoires fournis ou recommandés par NVIDIA. Pendant les tests, la tablette SHIELD a été positionnée afin de simuler la présence du corps humain. L'utilisation d'accessoires autres que ceux recommandés par NVIDIA ne garantit pas la compatibilité avec les normes d'émission RF de la IC RSS 102.

Europe

European Conformity

Conformité Européenne (CE)

(P/N 940-81761-2505-xxx)



This device bears the CE mark and class-2 identifier in accordance with Directive 1999/5/CE

This device complies with the following Directives:

- R&TTE Directive for radio equipment
- Low Voltage Directive for electrical safety
- RoHS Directive for hazardous substances

A copy of the Declaration of Conformity to the essential requirements may be obtained directly from NVIDIA GmbH (Flossergasse 2, 81369 Munich, Germany).

Japan

Voluntary Control Council for Interference (VCCI)



Translation:

This is a Class B product based on the standard of the VCCI Council. If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.

Radio / Telecommunications Certification



®211-141203

Li-ion Battery



Australia/New Zealand

Australian Communications and Media Authority (C-tick)



This product meets the applicable EMC requirements for Class B, I.T.E. equipment and applicable radio equipment requirements.

Russia/kazakhstan/belarus

EurAsian Customs Union

(P/N 940-81761-2505-xxx)



Complies with the technical limitations of the Customs Union (CU TR)

The device complies with the rules set forth by Federal Agency of Communications and the Ministry of Communications and Mass Media.

Federal Security Service notification has been filed.

South Korea

Radio Research Agency (RRA)

Korean Agency for Technology and Standards (KATS)



MSIP-CMM-NVA-P1761W

XU100277-14001

B급 기기
(가정용 방송 통신기자재)

이 기기는 가정용(B급) 전자파적합기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.

Translation:

Class B Equipment (For Home Use Broadcasting & Communication Equipment)

This equipment is home use (Class B) electromagnetic wave suitability equipment and to be used mainly at home and it can be used in all areas.

Singapore

Complies with
IDA Standards
DA 00006A

Taiwan

National Communications Commission (NCC)



注意！

依據低功率電波輻射性電機管理辦法

第十二條

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

第十四條

低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。

前項合法通信，指依電信法規定作業之無線電通信。

低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

在5.250~5.350GHz頻帶內操作之無線資訊傳輸設備，限於室內使用

Bureau of Standards, Metrology and Inspection (BSMI)



This device complies with CNS 13438 Class B

注意“使用過度恐傷害視力”

Bluetooth



Wi-Fi Alliance



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