

ASRock®

H2R

HDMI 2-in-1 Router

Travel AP
HDMI Dongle

User Manual

Version 1.0

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Regulatory Information

FCC Statement and Declaration: ASRock Wireless declares that this device complies with Part 15 of the FCC Rules and regulations. Operation of this device is subject to the following two conditions:

- This device may not cause harmful interface.
- This device must accept any interference received, including interference that may cause undesired operation.

FCC Notice: 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 and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance between the equipment and the receiver.
- Connect the equipment to 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 Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

IMPORTANT NOTE:

Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. To maintain compliance with FCC RF exposure compliance requirement, please follow operation instructions as documented in this manual.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Industry Canada Statement:

This Class B digital apparatus complies with Canadian ICE-003.

Cet appareil numérique de la classe B conforme à la norme NMB-003 du Canada

This device complies with RSS standards of the Industry Canada 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 interference that may cause undesired operation.

Ce dispositif est conforme à la norme CNR- standards 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.

IMPORTANT NOTE

Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

CALIFORNIA, USA ONLY

The Lithium battery adopted on this motherboard contains Perchlorate, a toxic substance controlled in Perchlorate Best Management Practices (BMP) regulations passed by the California Legislature. When you discard the Lithium battery in California, USA, please follow the related regulations in advance.

“Perchlorate Material-special handling may apply, see www.dtsc.ca.gov/hazardouswaste/perchlorate”

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Electrical Powering

The powering of the product must adhere to the power specifications indicated on the marking labels.

The power supply must be class II and a Limited Power Source in accordance with the requirements of IEC60950-1/EN60950-1, Clause 2.5 and rated as indicated on the label on your product. It must be tested and approved to national or local standards.

ASRock Website: <http://www.asrock.com>

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Chapter 1 Introduction

Thank you for purchasing ASRock HDMI 2-in-1 Router (H2R), a reliable travel router as well as a HDMI wirelessly streaming dongle, produced under ASRock's stringent quality control. It delivers excellent performance with robust design conforming to ASRock's commitment to quality and endurance.

1.1 About ASRock HDMI 2-in-1 Router

ASRock H2R is a portable travel router with IEEE 802.11n standards. When users are traveling or staying in hotels, it's pretty easy for them to share the LAN service with their family and friends. H2R is also a media streaming dongle that can be plugged into the HDMI port of your TV. It allows users to cast their favorite TV shows, movies, music, sports and games from mobile devices to the TV. H2R is fully compatible with various devices and different operating systems like iPhones, iPads, Android phones and tablets, Macs and Windows laptops. Most important of all, video streaming and other router functions can be used at the same time.

- **Travel Router:** H2R is a powerful access point for sharing Ethernet connections over WiFi. It has 2T2R internal antennas with IEEE 802.11n specification, supporting up to 300Mbps bandwidth.
- **HDMI Wireless Streaming Dongle:** With H2R HDMI dongle, customers get a better user experience while sharing photos/videos on a screen.

1.2 Package Contents



- ASRock HDMI 2-in-1 Router (H2R)



- Micro USB Cable



- HDMI Cable



- Flannel Bag



- Quick Setup Guide



Keep the original packaging material in case you would need future warranty services such as repair or replacement.

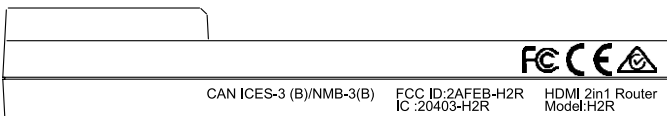
1.3 Overview



No.	Description	Function
1	HDMI connector	This connector allows you to connect the H2R to a compatible HDMI-enabled display.
2	LED indicator	This LED shows the power-on status.
3	Micro USB port	Insert the micro USB cable into this port to connect your H2R dongle to a power source.
4	WAN port	Connect your Ethernet cable to the WAN port.

1.4 Certificate Number

View the side of the dongle to check the certificate information.



Chapter 2 HDMI Dongle

2.1 Initial Setup

Please follow below steps to setup your H2R dongle.

2.1.1 Connect your H2R

1. Connect the micro USB cable to your H2R.



2. Plug the other end into a power outlet using the 5V/1A power adapter, or into an open USB port on your TV, Monitor, or Projector.



3. Plug the H2R (HDMI 2-in-1 Router) into an open HDMI port on your TV.

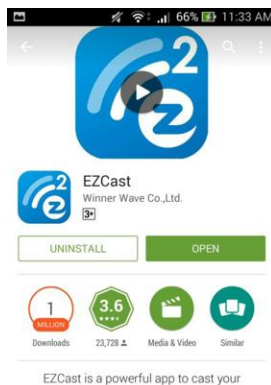


4. Switch the display source to HDMI.
5. If the HDMI source is set correctly, you should see the ASRock EZCast setup screen as shown below. Wait a few seconds until the H2R gets ready and you will see the SSID and PSK (password) of your H2R dongle on the top of the screen.



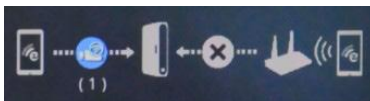
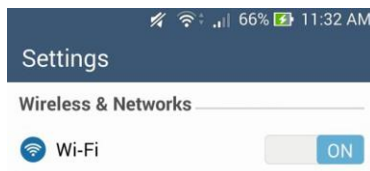
2.1.2 Download the EZCast app

1. Download the EZCast app from Android Google play or iOS App store.



2.1.3 Connect to the network (Android as sample)

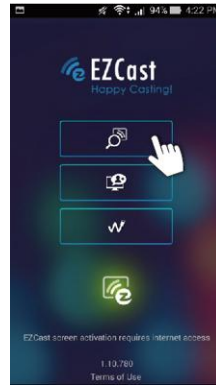
1. To Wirelessly connect your smart device to the H2R, tap **Settings** on your smart device, and make sure Wi-Fi is turned on.
2. Tap **Wi-Fi** and, in the list, find the Wi-Fi network name (ASRcast-XXXXXXX) corresponding to the SSID that appears on the top of your display.
3. Tap to select it, and then enter the password (PSK) that appears on your display.
4. Check if your device is successfully connected to your dongle from the screen.



5. Launch the EZCast app on your device.



6. Tap the Search button (at the first row).



7. Tap the Wi-Fi network name (ASRcast-XXXXXXX) of your dongle. (You can check the SSID that appears on your display.)



8. For a first-time user or if your H2R has not connected to a nearby internet access point yet, the AP List screen appears for you to wirelessly connect your H2R to your home router for Internet access.



9. In the meantime, your EZCast turns to a control pad. Use your EZCast as a remote controller to find the name of your home router in the AP List on the screen.

10. Tap OK to enter the password of your home router. Tap OK again to save the password.


NOTE: For Internet setting, please refer to the section entitled "Setting".

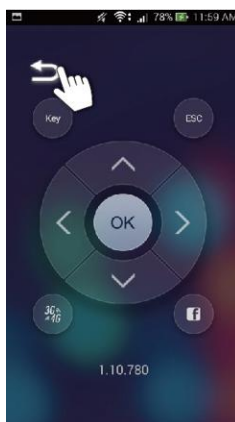
11. When the dongle is successfully connected to your home router, it will check the latest firmware automatically. If no upgrade is required, the display will return to the Setting page.



12. Check whether your dongle is successfully connected to your home router on the screen.



13. Tap Back  to return to the dashboard on your device and main screen on your TV display.



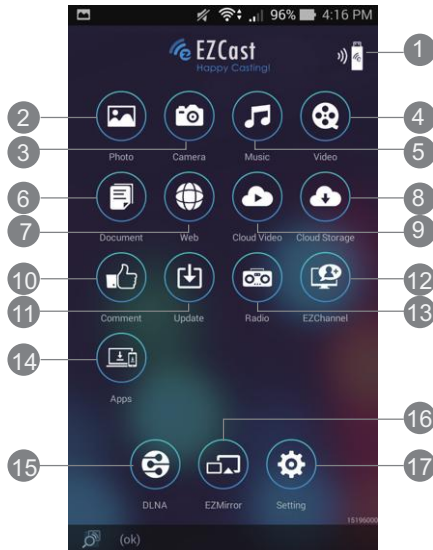
2.2 EZCast app overview

2.2.1 Main Page



No.	Item
1	Search H2R
2	EZChannel

2.2.2 Function Page



No.	Item	
1	Link Mode	 Direct Link (peer to peer)  Linked through router
2	Photo	Select a photo to be displayed on screen
3	Live Camera	Stream an image from mobile device's camera
4	Video	Stream your video
5	Music	Stream your music
6	Document	Select a document to be displayed on screen
7	Web	EZCast comes with a built-in browser
8	Cloud Storage	Link to your personal Dropbox and Google Drive account
9	Cloud Video	A shortcut for all major web video sites
10	Comment	Leave comments to EZCast customer service team
11	Update	Update the EZCast app
12	EZChannel	Enjoy default featured video channels
13	Radio	More than 1000+ radio stations in the radio function
14	Apps	For more Apps information
15	DLNA	Switch to another appropriate DLNA App on your device for sending DLNA media file to H2R dongle
16	EZMirror	Miracast (available for Windows and Android devices only)
17	Setting	Set up H2R's configurations

2.2.3 Control Pad

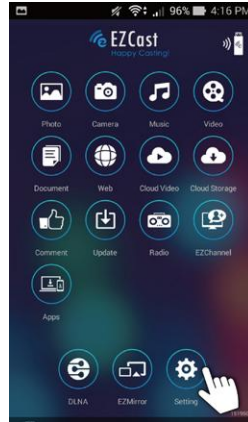


No.	Item
1	Back: return to the setup screen
2	Key: show/hide keyboard
3	ESC: return to the previous page
4	Arrows and OK button
5	Check or change the SSID and password of your device's Wi-Fi hotspot
6	Go to Facebook

2.3 Setting

2.3.1 Adjust the output resolution

1. Open the EZCast app on your smart device and tap **Settings**.



2. The Setting screen appears on your display.
3. Use your EZCast device as a remote controller and highlight to select **Resolution** on your display.
4. Tap up and down to toggle among options.
5. Tap **OK** to save the setting.



2.3.2 Connect to the Internet

If you want to connect your H2R dongle to the AP router for internet access, open the EZCast app and tap Settings. The Setting screen appears on your display.

1. Use your EZCast device as a remote controller. Tap left and right to toggle among options. Select **Internet** and tap OK.



2. Then AP List shows a list of AP router networks in range. Tap **OK** to select the AP router from the list.



3. Enter the password for connection. Tap **OK** to save the password.
4. Tap **Cancel** to exit without saving your changes. Tap **Forget** to forget a network you've joined before.



Add a new network to the AP List:

1. To add a new network, tap to select **Add network**.
2. When Security is highlighted, tap **OK** and tap up and down to toggle among options.
3. Tap **OK** again to save the setting.
4. Continue to input the network name and password. Tap up and down to save the setting and move to another option.
5. Move to highlight the bottom row and tap OK to add a new network.



2.3.3 Select a boot up mode

To set up the boot up mode priority, open the EZCast app on your smart device and tap Settings. The Setting screen appears on your display.

1. Use your EZCast device as a remote controller and highlight to select **Default Mode** on your display.



2. Tap up and down to toggle among options. Tap **OK** to select.
3. Tap **YES** to confirm.



- **EZCast (Default) :**

The H2R dongle is controlled by the EZCast app. You can use the functions in the EZCast app to mirror the screen of your smart device to the display.

- **EZMirror+Timer:**

If your device is a Miracast-compatible Android device, you can select EZMirror+Timer as the default mode. H2R will stay at EZMirror (Miracast) mode, and then switch to EZCast mode 120 seconds after the dongle boots up.

NOTE: To check whether your Android device is compatible with Miracast, swipe down from the top of the device's screen and click the miracast icon (the icon will vary depending on the brand of your device).

- **EZMirror+AP:**

H2R will support both EZMirror (Miracast) and EZCast mode all the time. Connect your Miracast-compatible device and the H2R dongle to your AP router, and then you can use the miracast screen mirroring.

NOTE: For detailed instructions, please refer to the section entitled "Mirroring your screen to a TV/monitor or projector".

2.3.4 Select a Connection Mode

(Available for the EZCast and EZMirror+Timer mode)

Open the EZCast app on your smart device and tap Settings. The Setting screen appears on your display.

1. Use your EZCast device as a remote controller and highlight to select **Connection** on your display.
2. Tap up and down to toggle among options. Tap **OK** to save the setting.



- **Via Router Allowed:** You will be able to discover H2R through home router if you have established the connection with the router.
- **Via Router Only:** Your smart device can connect to your home router's network only.
- **Direct Link Only:** Your smart device can connect to the network of your H2R dongle only. You need to manually connect to the home router's network if needed.

2.3.5 Change password

Open the EZCast app on your smart device and tap Settings. The Setting screen appears on your display.

1. Use your EZCast device as a remote controller and highlight to select **Password** on your display.
2. Tap OK to set a network password or change an existing password for your H2R dongle.
3. Tap **OK** to save the setting.



Hide or Show Password

1. When the Password item is highlighted, tap up and down to select whether you want to show or hide the password on the display.
2. Tap left or right to save the setting and exit, or tap Back to return to the setup screen.

2.3.6 More

In the More section, you can change the display language and device name, and configure the EZChannel setting, power saving time, EZAir function and firmware update.

Open the EZCast app on your smart device and tap Settings. The Setting screen appears on your display.

1. Use your EZCast device as a remote controller and select **More** on your display.
2. Tap **OK** to enter the More section. Tap left and right to toggle among options.



Language

Highlight Language and tap up and down to select the display language. Tap OK to save the setting.



Device Name

Highlight to select Device Name. Tap OK to rename your H2R dongle. The new name will take effect after reboot.

Note: You can only name the device. The SSID cannot be changed.



EZChannel

Highlight to select EZChannel. Tap OK to configure the EZChannel settings. Tap up and down to toggle among options.



- **EZChannel:** Tap OK to switch the EZChannel feature on or off. When it is ON, you can tap the EZChannel icon on the dashboard to enjoy default featured channel, public channel or your friend's channel.

When EZChannel is set to ON, the following items can be configured:

- **Volume:** Adjust the volume for the EZChannel media.
- **Wait Time:** Set the wait time as 30 seconds, 1 minute, or 5 minutes.
- **Playlist Display:** Display a playlist in the EZChannel. Tap OK to switch the Playlist Display feature on or off.
- **SSID&Password:** Display the SSID and password information

Power Saving

The H2R application will go to sleep after the designated time of inactivity for power saving.



EZAir (For iOS device only)

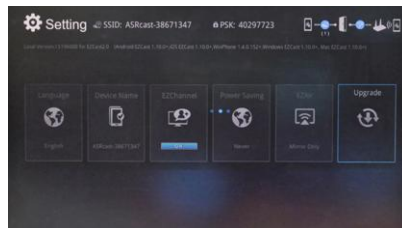
Highlight to select EZAir. Tap up and down to toggle among options.



- **Mirror Only:** To use AirPlay, swipe up from the bottom of your screen to open Control Center. Tap Airplay. Choose your H2R dongle in the list. Turn on Mirroring.
- **Mirror+Streaming:** Simply tap AirPlay icon on your iOS device, then you can see your entire iOS screen on the TV.

Upgrade

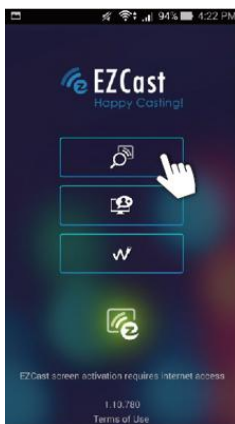
Upgrade the firmware of your H2R dongle. DO NOT turn the power off during the firmware update procedure.



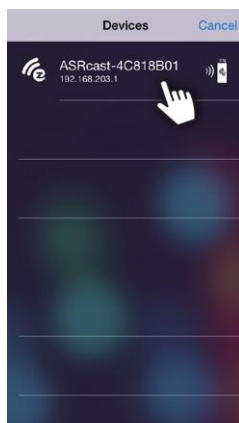
2.4 Major Features

2.4.1 Sharing photos to a TV/monitor or projector

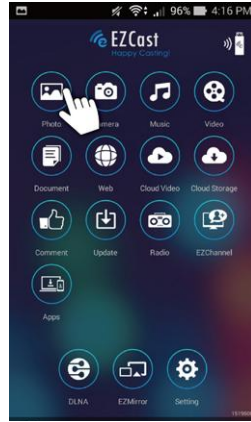
1. Connect your device to the wireless network with the SSID and password. Please refer to the section entitled "Initial Setup" for more details.
2. Open the EZCast app and tap **Search** icon.



3. Select your HDMI device.

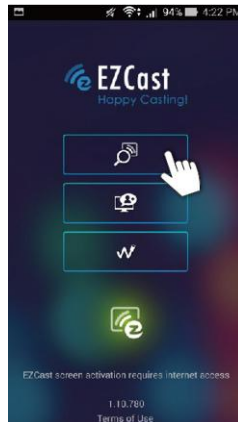


4. Tap the Photo icon or Camera icon.
Select your photos.
5. Share your photos on the TV or monitor.

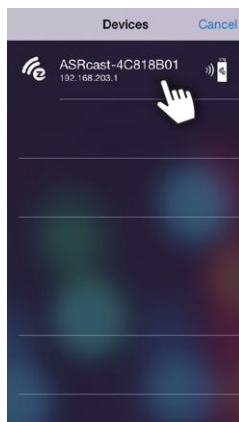


2.4.2 Streaming videos to a TV/monitor or projector

1. Open the EZCast app and tap **Search** icon.



2. Select your HDMI device.



3. Tap the **Cloud Video** icon.



4. Open the content you want to stream.

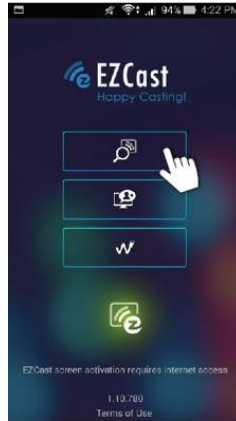


2.4.3 Mirroring your screen to a TV/Monitor or projector

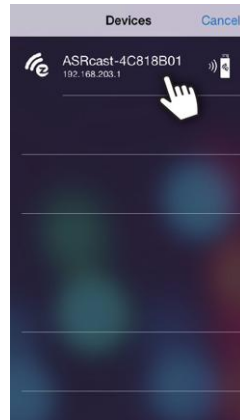
Using the EZMirror (Miracast) feature

Note: Please be noted not all devices support EZMirror.

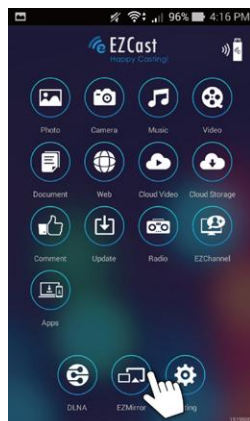
1. Open the EZCast app and tap **Search** icon.



2. Select your HDMI device.



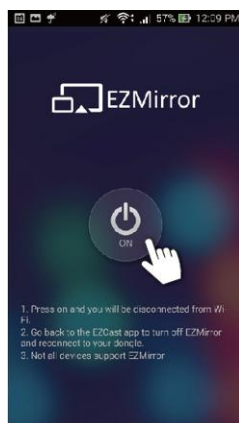
3. Tap the EZMirror icon.



4. Meanwhile, you will see the EZMirror screen appear on your TV display.



5. Tap ON to enter the EZMirror mode.

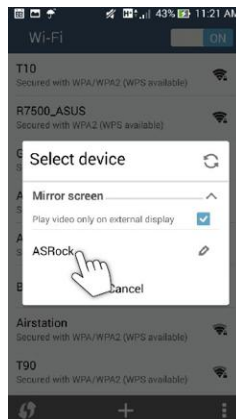
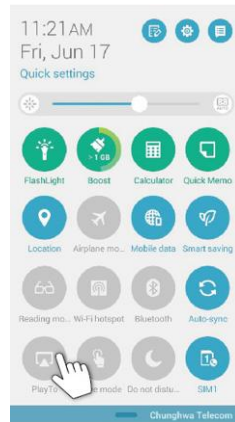


- Meanwhile, you will see the EZMirror screen appear on your TV display as shown in the right column.
- After entering the EZMirror mode, there will be a 60 seconds countdown for your device to connect with the receiver. Please complete the following steps within 60 seconds.



A. For Andriod devices:

- Swipe down from the top of the device's screen and click the miracast icon (the icon will vary depending on the brand of your device).
- Select the name of your H2R in the list.
- Now you can successfully mirror the screen of your device to your TV.



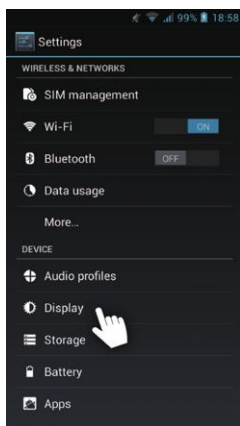
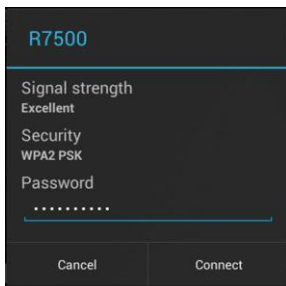
B. For iOS devices:

1. Connect your device to the wireless network on your home router.

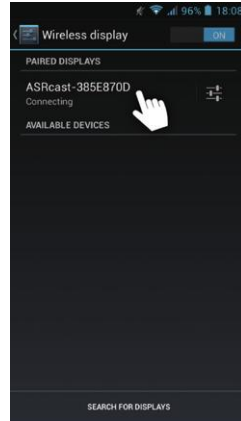
To do so, find and select the Wi-Fi network name (SSID) in a list of available networks on your device and enter the wireless password.

2. Go to **Settings > Display** on your device.

3. Tap **Wireless display**.



4. Enable **Wireless display**.
5. Tap to select your device.
6. The screen of your device will be mirrored to a TV or monitor.



Using the EZMirror (Miracast) feature in the EZMirror+Timer mode

If you have set the boot up mode as EZMirror+Timer in the Setting page, everytime when you reconnect the H2R dongle, there will be a 120 seconds countdown for your device to connect with the receiver. Please select your Miracast function in your device setting page.



The names of the item in the screenshots are for references only and may be different depending on the devices and OS you use.

Exiting the EZMirror mode

1. Launch the EZCast app and tap the EZMirror icon.
2. Tap **ON** again to turn off EZMirror.
3. Tap **Search** again to reconnect your H2R dongle.

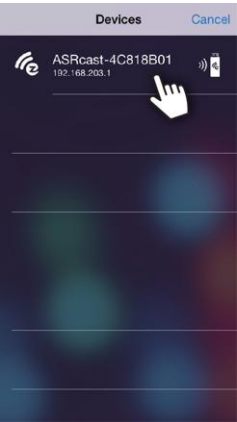


2.4.4 Accessing your data from cloud storages

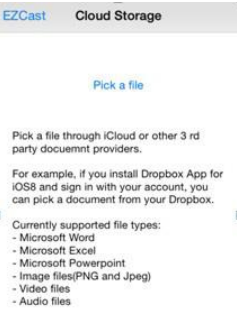
1. Open the EZCast app and tap **Search** icon.



2. Select your HDMI device.



3. Tap the **Cloud Storage** icon and **Pick a file**.

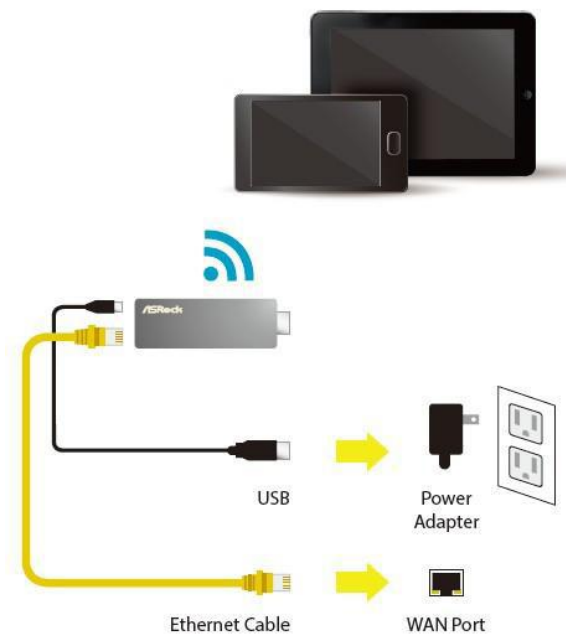


4. Select where you want to import your Dropbox and Google Drive files.
5. Select your file to be streamed to your TV, monitor or projector.



Chapter 3 Travel AP

3.1 Travel AP Connections



1. Connect the micro USB cable to your H2R, and plug the other end into a power outlet, using the 5V/1A power adapter.
2. Connect your RJ45 cable to the WAN port.
3. Connect your device to the wireless network with the SSID and password.