

A solid red square with rounded corners on the left side of the page.

picobit-S

User Manual

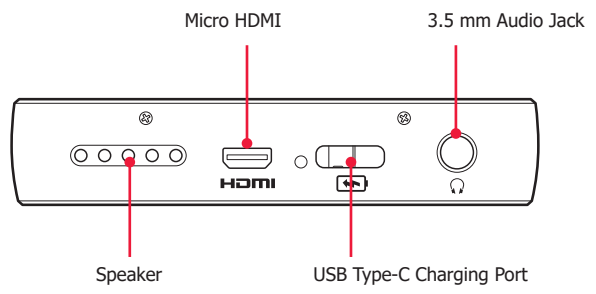
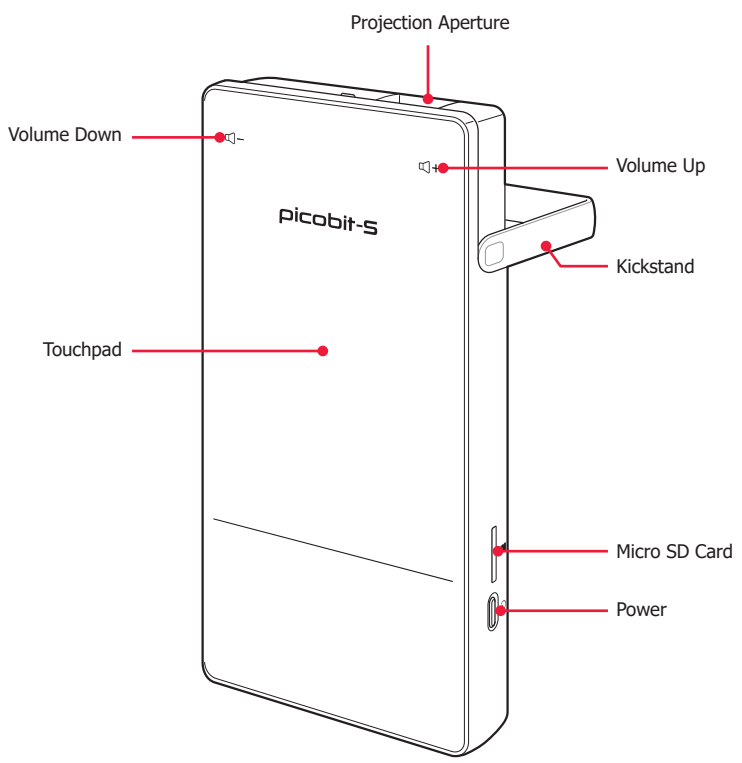
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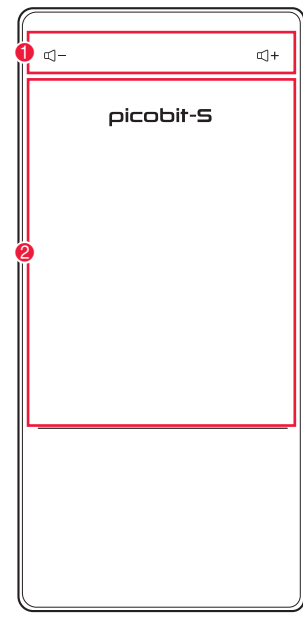
Product Features

For your safety, do not point the laser light directly into eyes or people. Doing so may cause serious injuries.

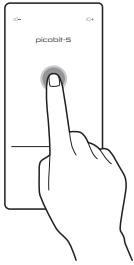


Using Touchpad

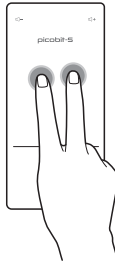
The top surface of PicoBit-S is touchpad. When PicoBit-S is fully loaded, cursor will appear on the screen for users to control using this touchpad.



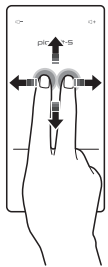
- 1 Tap these icons to increase and decrease volume.
- 2 Freely navigate the screen using a finger - this area recognizes your finger movement as cursor movement on the screen.



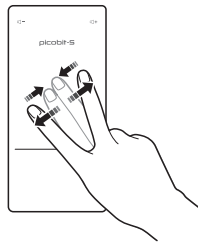
- **Left click** – Tap once



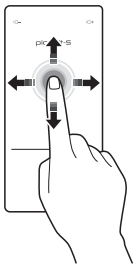
- **To go back or cancel** – Tap once with two fingers



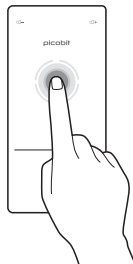
- **Scroll** – Tap once and hold down with two fingers. Without releasing the fingers, scroll up and down.



- **Zoom in & out** – Using two fingers, pinch in to zoom out and pinch out to zoom in.



- **Drag** – Tap once and hold down. Without releasing the finger, slide finger in any direction to drag. Release finger on desired area.



- **Long Press** – Tap once and hold down. Menu will display with available options (Copy, Paste, Save, etc).

Product Mode

- 1 LED Indicator** - Different colors of LED indicators located below touchpad represent status of the PicoBit-S.
 - Solid Blue – PicoBit-S is powered on
 - Green – Fully charged
 - Red – Charging
- 2 Power On** – Press power switch for 3 seconds.
- 3 Power Off** – Press power switch for 6 seconds. After 3 seconds, power menu will be displayed. Continue to press it for another 3 seconds, and the product will power off.
- 4 Power Menu** – While product is turned on, press power switch for 3 seconds to see the Power menu (Power off or Restart option). This menu does not show during HDMI or WiFi Display mode.
- 5 APC (Auto Power Control) Setting** – This setting is to efficiently control the amount of light emitting from PicoBit-S's laser diodes. Due to this setting, a thin white line on the top of the screen will always be present when PicoBit-S is turned on.


Charging the Device

Battery Operating Time: Approx. 2.5 hours

Battery Charging Time: 4-5 hours

To charge PicoBit-S : Use the supplied USB Type-C cable and power adapter to charge the device.

Please note that using other adapters than the one provided may result in longer charging times or damage to the internal battery.

 **IMPORTANT!** It is not recommended to use PicoBit-S continuously for more than 4-5 hours or continuously charge for a long period of time. Due to the structure of the projection module, heat problem with module may occur if PicoBit-S is continuously played or charged for a long period of time. Please cool off the device by turning it off after playing it for 4-5 hours.

Environmentally Friendly Disposal and Recycling

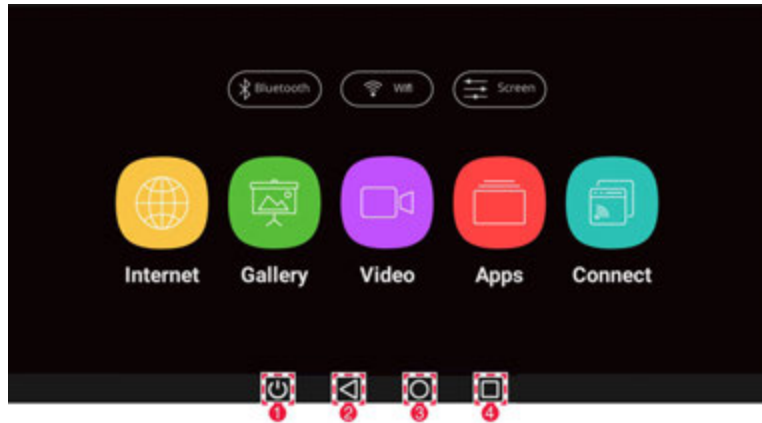


To protect the environment, dispose this product separately from household waste once it has reached its end of life, or take it to your local electronic waste disposal center.

Built-in Battery Specification

Battery Type	Rechargeable Lithium-ion Polymer Battery
Battery Operating Time	Approx. 2.5 hours (with continuous use)
Battery Capacity	3,500 mAh @ 5 V 2 A
Charging the Battery	Use supplied cable and power adapter to charge the battery. (Green LED – Fully Charged / Red LED – Charging)
Battery Charging Time	Approx. 4 – 5 hours

PicoBit-S Main Menu



1	Power Menu	To power off or restart the device
2	Back	To go back to the previous page
3	Home	To go back to the main menu
4	Task Manager	To manage applications running on PicoBit-S

Connection Methods

Screen Mirroring (For Android & Windows OS device)

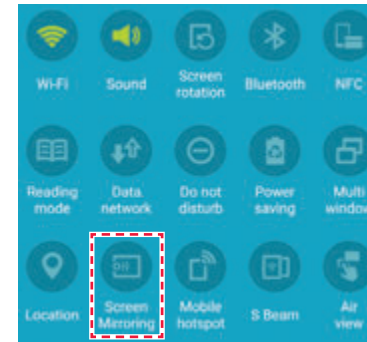
(WiFi Display / Smart View / Screen Sharing / Media Output)

A. For Smartphone / Tablet PC

- Select **"Connect"** menu icon on the main menu, then **"Android"** icon to enter Miracast mode.

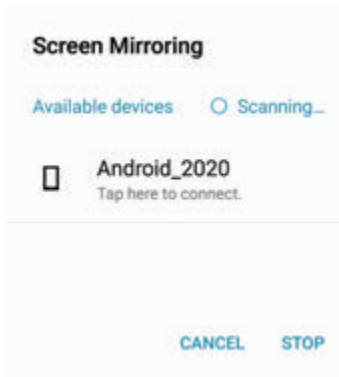


- On a mobile device, find and select Screen Mirroring feature (WiFi Display / Smart View / Screen Sharing / Media Output).



Note Wireless display feature is called different names on different devices. (i.e. Samsung device = Smart View / Screen Mirroring, LG device = Screen Sharing, etc.)

- When device discovers “**Android_XXXX**”, tap to connect.



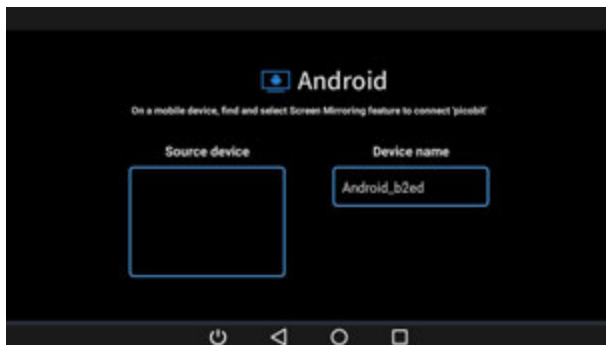
- PicoBit-S will start mirroring display upon successful connection.

B. For PC/Laptop

Wireless Display (Miracast) feature is supported on devices with Windows OS 8.1 and later versions.

To connect PicoBit-S wirelessly with Windows OS device, please utilize Window’s Miracast feature.

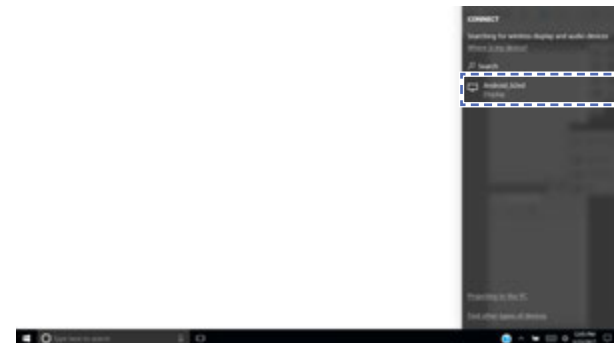
- 1 Select “**Connect**” menu icon on the main menu, then “**Android**” icon to enter Miracast mode.



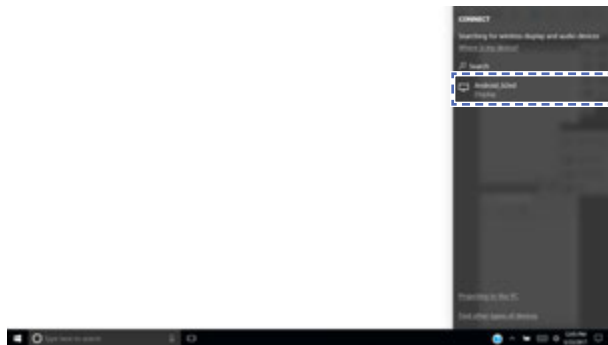
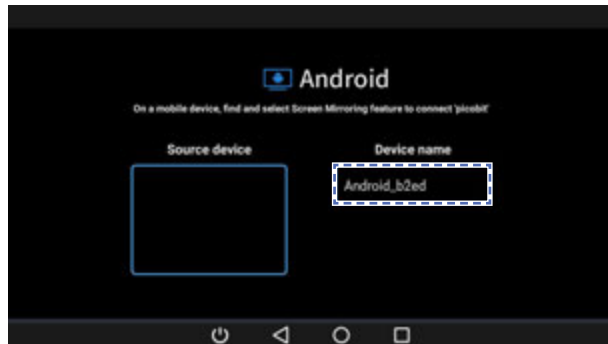
- 2 On a Windows device, click on “**Action Center**” icon. “**Action Center**” icon is located on the far right corner of the Window’s bottom taskbar. When Action Center menu is displayed, click “**Connect**”.



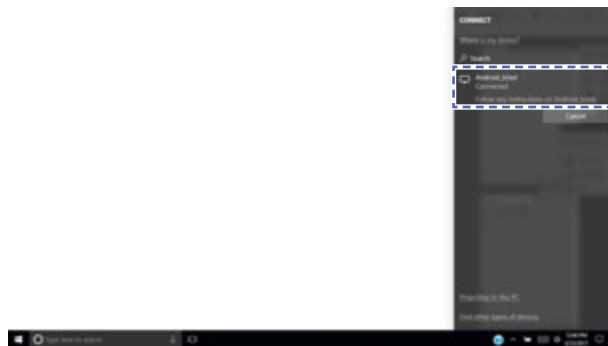
- 3 When “**Connect**” option is selected, device will look for an external display device to connect.



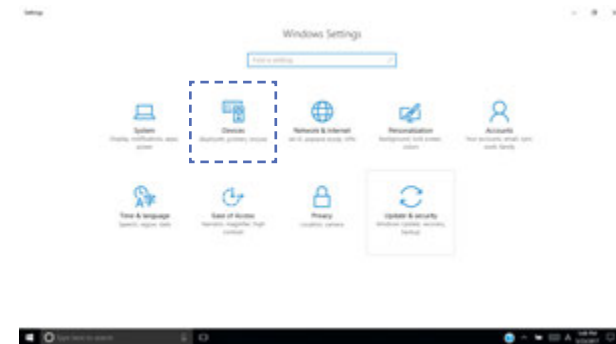
- 4 Make sure that the detected device matches PicoBit-S's wireless device name, then click the device name on Windows device to connect.




- 5 PicoBit-S is now connected and mirroring will start immediately.



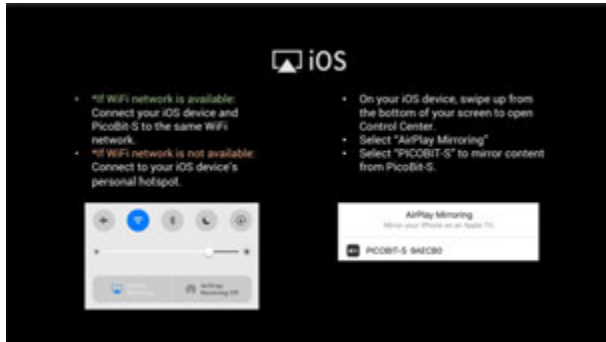
* If "Action Center" icon is not available on taskbar, please go to "Windows Settings" → "Devices" → "Connected devices" to connect PicoBit-S.



 **Note** Miracast feature on devices with outdated WiFi driver or graphic driver may not work properly. Please update WiFi or graphic driver to make sure the device is up to date.

Air Pico (For iOS device)

- PicoBit-S and the desired iOS device must be connected to the same WiFi network for this feature (If there is no WiFi network available, use iOS device's hotspot to connect PicoBit-S's WiFi to the device).
- Select **"Connect"** menu icon on the main menu, then **"iOS"** icon to enter the Air Pico mode.
- Below image will be displayed upon entering Air Pico mode.



- Follow instructions on screen: On your iOS device, pull up the task bar from the bottom of screen and select AirPlay.
- Select **"PICOBIT-S XXXXX"** on your iOS device.
- PicoBit-S will start mirroring display upon successful connection.

HDMI

- Select **"Connect"** menu icon on the main menu, then **"HDMI"** icon to enter HDMI connection mode.



- For HDMI connection, use Micro HDMI to HDMI cable (sold separately) to connect PicoBit-S with the device.
- You may tap touchpad with two fingers or disconnect cable connection to exit HDMI mode during usage.



Note

During HDMI connection, it is recommended to use 3.5mm audio jack to connect to an external speaker (Bluetooth speaker is not recommended).

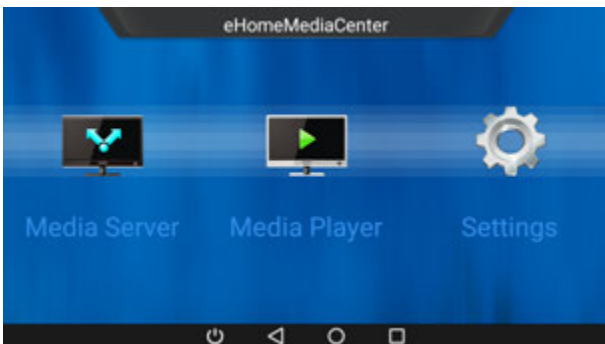
DLNA

Desired mobile device must have applicable DLNA app installed and running.
(Ex. ArkMC, BubblePnP, etc.)

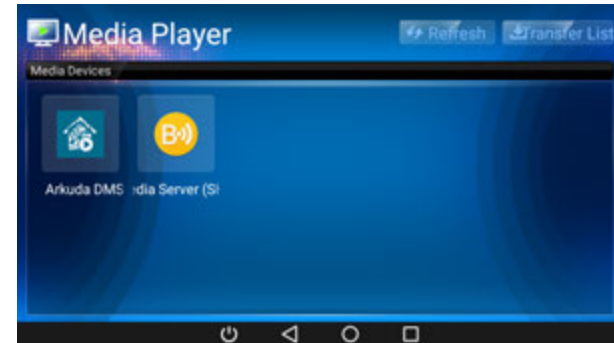
- 6 Go to **"Apps"** icon on the default menu screen, then find **"Settings"** icon to check connected WiFi on PicoBit-S.



- 7 Connect to that same WiFi network on a mobile device.
- 8 After verifying that PicoBit-S and the mobile device are connected to the same network, select **"Apps"** icon on the main menu.
- 9 Find and select **"eHomeMediaCenter"** app to enter DLNA mode.



- 10 Go to the mobile device you wish to connect, and open up DLNA app (ex. ArkMc DLNA).
- 11 On PicoBit-S, select the **"Media Player"** option to see the list of saved media contents in connected mobile device.



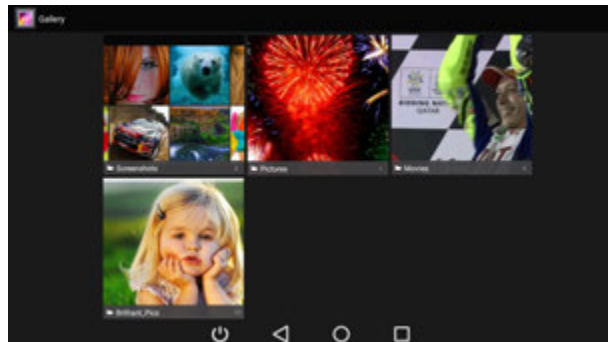
- 12 Select your device.
- 13 Find an image or a video to play through PicoBit-S (Files saved on Micro SD card will be not discovered).

Micro SD Card

- Insert Micro SD card.
- To enjoy videos or movies stored on Micro SD card, select **"Video"** icon on the main menu, then select **"Video"** icon.



- Browse through and select a video to play through PicoBit-S.
- To share images stored in the SD card, select **"Gallery"** icon on the main menu.



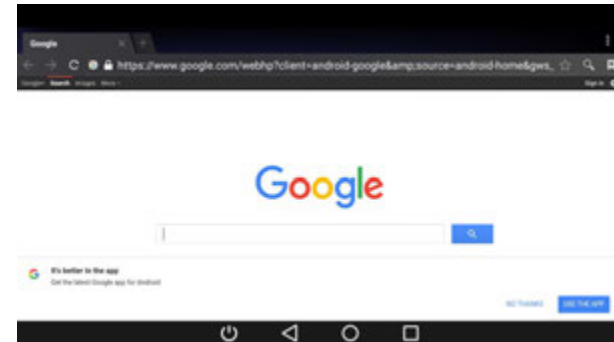
- Browse through and select an image to display through PicoBit-S.

Internet

- 1 To connect to WiFi network, select **"Wifi"** icon on the main menu.
- 2 Connect to available WiFi network.



- 3 On the main menu screen, select **"Internet"** icon to use internet browser.



- 4 Freely use the web to do web surfing, streaming, etc.

Bluetooth

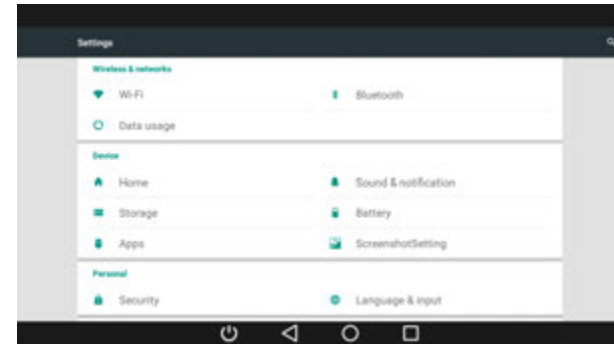
- To connect a Bluetooth device to PicoBit-S, select **"Bluetooth"** icon on the main menu.
- Turn on Bluetooth.



- Find and connect desired Bluetooth device (Bluetooth mouse, speaker, headset, etc) to PicoBit-S.

Android Settings

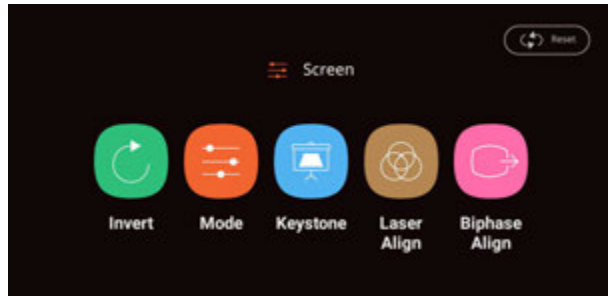
Android Settings – Make changes to basic device settings. Make changes to basic device settings (WiFi, Bluetooth, Date & Time, Language, etc.).



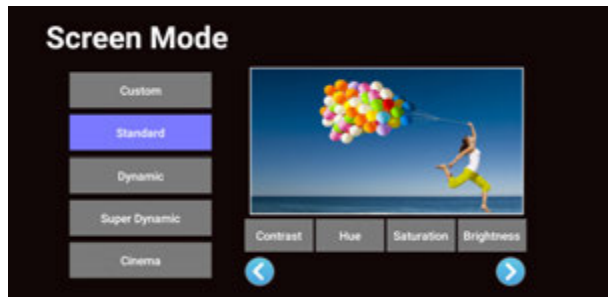
- From the main menu, select **"Apps"** icon.
- Find and select **"Settings"** app.
- Make changes to various settings as needed.

Projector Settings

Projector Settings – Select “Screen” menu icon on the main menu to enter Projector Setting menu. Make changes to projector settings. All adjustments are saved as it is made.



Screen Mode



- **Custom Mode** – Users can modify various screen settings as desired.
 - Move the pink dot controller to adjust contrast, hue, saturation, brightness of the screen as desired.
 - Adjustment range: Contrast: -10 ~ 10 Hue: -15 ~ 15
Saturation: -15 ~ 15 Brightness: -30 ~ 30
- **Standard Mode (DEFAULT setting)** – For a generic environment
- **Dynamic Mode** – For a relative bright environment
- **Super Dynamic Mode** – For more brighter environment
- **Cinema Mode** – For a dark environment

Screen Invert



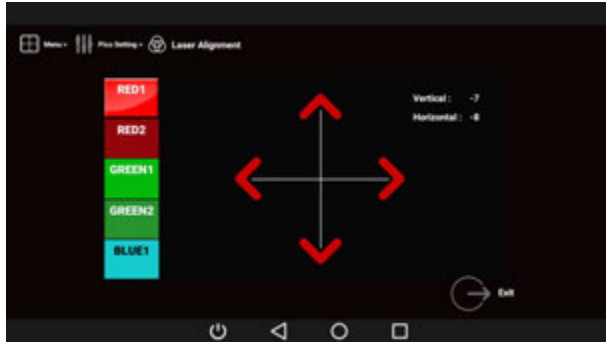
- Select icons to change screen orientation as desired.

Keystone Adjustment



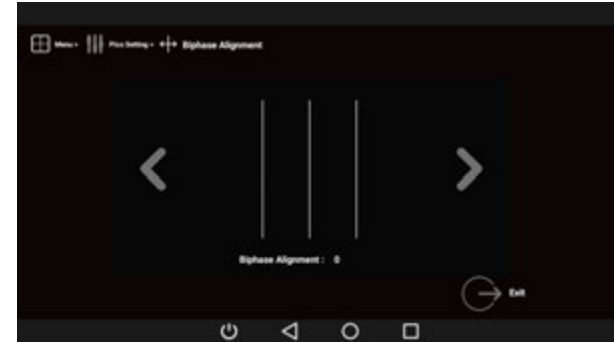
- Auto adjustment enables automatic keystone feature (only up and down angles).
- For manual adjustment, select UP, DOWN, LEFT, and RIGHT icons to adjust screen shape as needed.
 - Adjustment Range: Up - 0° ~ 20° Down - 0° ~ 30°
Left - 0° ~ 30° Right - 0° ~ 30°

Laser Alignment



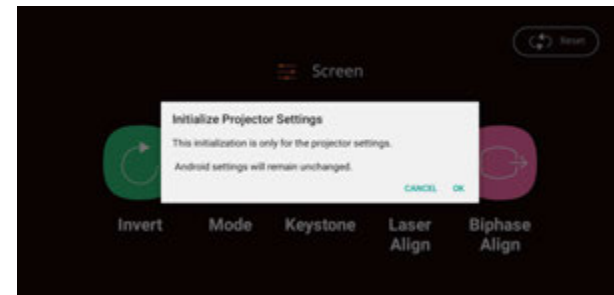
- Select up, down, left, and right arrows to adjust Red1, Red2, Green1, Green2, and Blue lasers to align the lasers.
- Align the lasers until the white cross lines are as thin as it can be.
- Adjustment range: Up & Down: -20 ~ 20
Left & Right: -120 ~ 120
- Once saved, all adjustments made will remain through power cycles.

Bi-Phase Adjustment



- Use left and right arrows to align the lines.
- Adjust the lines until the white lines are aligned together.
- Once saved, all adjustments made will remain through power cycles.

Pico Reset



- All changes made in Pico Settings will be erased.
- Android settings will remain unchanged. To reset Android settings, go to Android settings menu and select Factory Reset.

Specifications

Item	Specification
Display Method	Laser Beam Scanning
Product Lifetime	14,000 hours
Brightness	63 ANSI lumen* (The perceived brightness is about 100 lamp-based projector (DLP) lumen)
Aspect Ratio	16:9
Throw Ratio	1.3 : 1
Sequential Contrast Ratio	80,000 : 1
Resolution	1920 X 720p (Upscaled HD)
Color Depth	16.7 M colors (R/G/B 24bit)
Focus	Infinite Focus (Always-in-focus)
Maximum Image (Screen) Size	250 inches (Depending on ambient light)
Embedded OS	Android 5.1.1 (Lollipop)
CPU	Quadcore 1.3 GHz
Internal Memory	4 GB
WiFi	Dual (2.4 Ghz & 5 Ghz)
Bluetooth	4.0
Battery Capacity	Approx. 3,500 mAh
Operating Time	Approx. 2.5 hours (Average movie playing time on SD card)
Audio Interface	Internal speaker, 3.5mm ear phone jack, or Bluetooth
Operating Temperature	32 °F – 104 °F (0 °C – 40 °C)
Size	138 x 66.5 x 15 mm (5.4 x 2.6 x 0.6 inches)

*The perceived brightness of laser projectors with a given ANSI brightness measure is about 1.7 times higher to human eye.

Safety Precautions

- This product is not waterproof – avoid using it near water or wet places.
- There is a risk of malfunction if product is used in places where sudden or extreme temperature changes occur.
- Applying excessive force or impact to this product may result in product damage, and will void warranty.
- Never attempt to disassemble or service this product yourself. Doing so can result in electrical shock and void warranty.
- This is a Class 3R Laser product. For your safety, please do not look directly into the laser source. Doing so may damage your eyes.
- It is not recommended to use PicoBit-S continuously for more than 4-5 hours or continuously charge for a long period of time. Due to the structure of the projection module, heat problem with module may occur if PicoBit-S is continuously played or charged for a long period of time. Please cool off the device by turning it off after playing it for 4 – 5 hours.

Product Certifications



KC : MSIP-CMM-CLK-PICOBIT



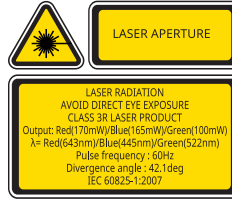
FCC ID : TCLPICOBIT



compliant
RoHS



CE1177



IEC-60825-1 : Class 3R Laser

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

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

FCC Caution

Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC RF Radiation Exposure Statement:

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC Compliance Information

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 to another device.
2. This device must accept any interference received, including interference that may cause undesired operation.

FCC Class Notice

This equipment has been tested and found to comply within the limits for a Class B digital device, pursuant to Part15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential environment.

This equipment generates, uses, and radiates 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 with special installation.

CE Class Notice

This product is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. The declaration of conformity may be consulted at: http://celluon.com/docs/picobit_doc_ce.pdf

CE Caution

Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

IEC-60825-1 Caution

Use of control or adjustments or performances of procedures other than those specified here in may result in hazardous radiation exposure.

The MIT License (MIT)

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Warranty

Celluon warrants this product to be free from defects in materials and workmanship under normal use for a period of one (1) year from the date of purchase, as evidenced by the receipt of purchase.

During the warranty period, Celluon shall repair or replace the product if defective. If replaced, the replacement shall be with a product of equal or greater value.

Celluon does not warrant against normal wear and tear, nor damage caused by accident or abuse.

This warranty is limited to the purchaser and is not transferable.

Please contact support@celluon.com for warranty supports.



Celluon, Inc.

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