

The logo for picobit, consisting of a solid red rounded square followed by the word "picobit" in a light gray, lowercase, sans-serif font.

User Manual

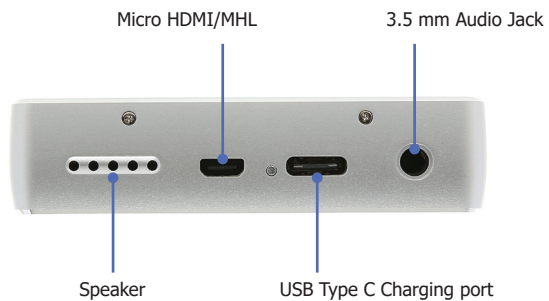
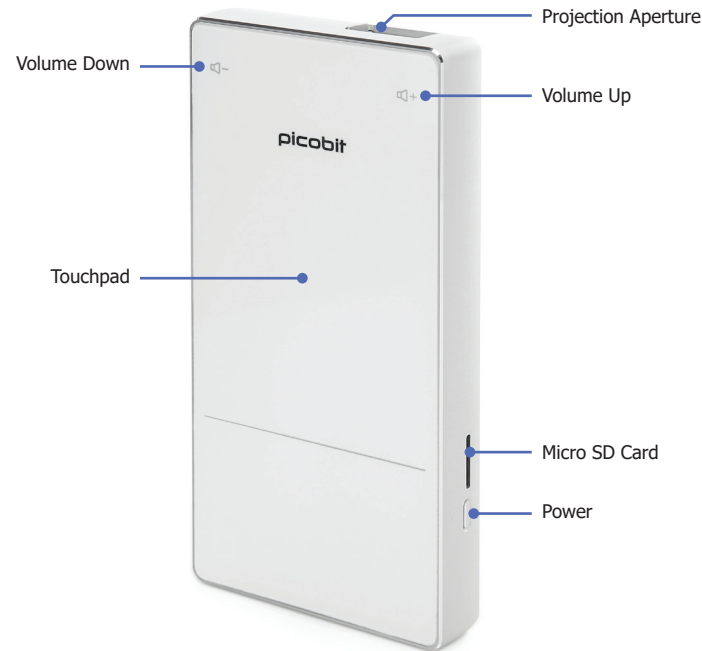
Table of Contents

- Product Features 3**
- Using Touchpad 3**
- Product Mode 4**
- Charging the Device 4**
- PicoBit Main Menu 5**
- Connection Methods..... 5**
 - Miracast 5
 - Air Pico..... 6
 - HDMI / MHL..... 7
 - DLNA 7
 - Micro SD Card 8
 - Internet..... 9
 - Bluetooth 9
- Android Settings..... 10**

- Projector Settings 10**
 - Keystone Adjustment 10
 - Screen Rotation 11
 - Screen Setting 11
 - Laser Alignment..... 12
 - Bi-Phase Adjustment 12
 - Pico Reset 12
- Specifications 13**
- Safety Cautions 13**
- Product Certifications..... 14**
- Warranty 15**

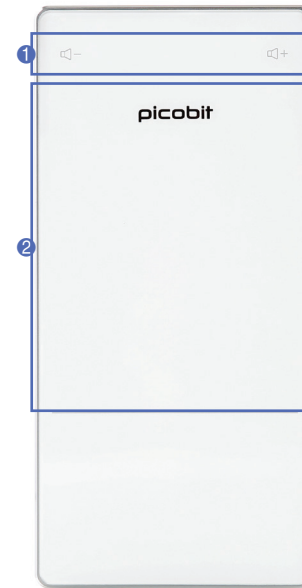
Product Features

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 is touchpad. When PicoBit 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.

Product Mode

- 1 LED indicator** - Different colors of LED indicator located below touchpad represent status of the PicoBit.
 - Solid Blue – PicoBit is powered on
 - Blinking Blue – In sleep mode
 - 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 Automatic sleep mode** – PicoBit automatically enters sleep mode (power save mode) after idling for 5 minutes. To wake up sleep mode, press the power button shortly and PicoBit will display the image shown before entering the sleep mode. Users can set sleep mode time through Android settings app. Automatic sleep mode does not work during HDMI connection or WiFi Display connection with a mobile device.
- 6 APC (Auto Power Control) setting** – This setting is to efficiently control the amount of light emitting from PicoBit's laser diodes. Due to this setting, a thin white line on the top of the screen will always be present when PicoBit is turned on.

Charging the Device

Battery Operating Time: Approx. 2 hours

Battery Charging Time: 4-5 hours

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

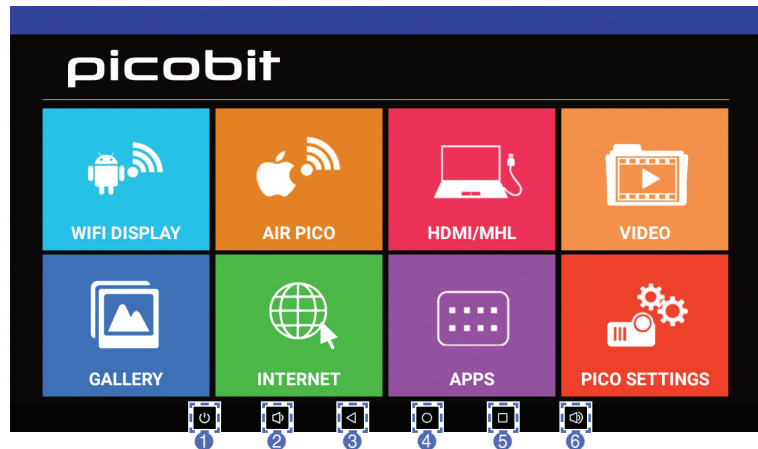
Please note that using other adapters than the one provided may result in longer charging times or damage to the internal battery.

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.

PicoBit Main Menu



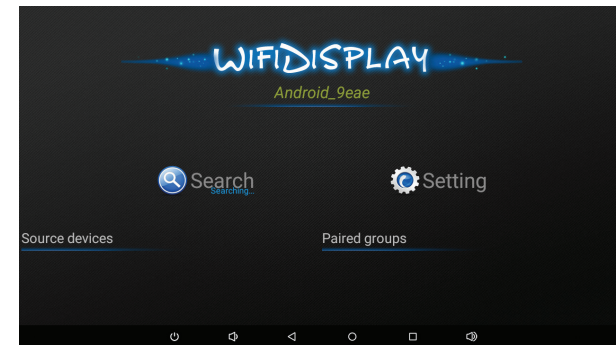
①	Power Menu	To power off or restart the device
②	Volume control button	To decrease volume
③	Back button	To go back to the previous page
④	Home button	To go back to the main menu
⑤	Task manager button	To manage applications running on PicoBit
⑥	Volume control button	To increase volume

Connection Methods

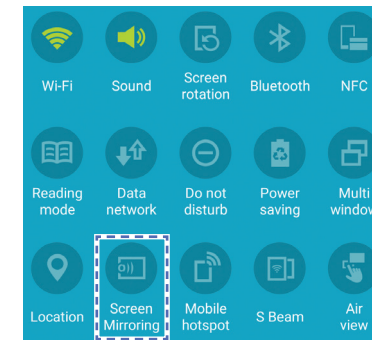
Miracast

(WiFi Display / Smart View / Screen Sharing / Screen Mirroring)

- On the default menu screen, select **"WiFi Display"** icon to enter WiFi display mode.

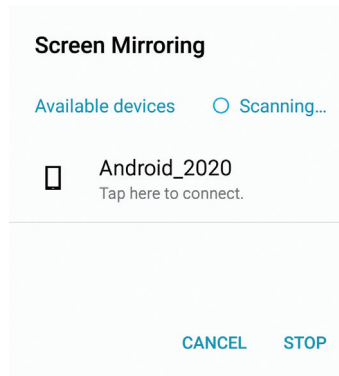


- On a mobile device, find and select Miracast (WiFi Display / Smart View / Screen Sharing / Screen Mirroring) option.

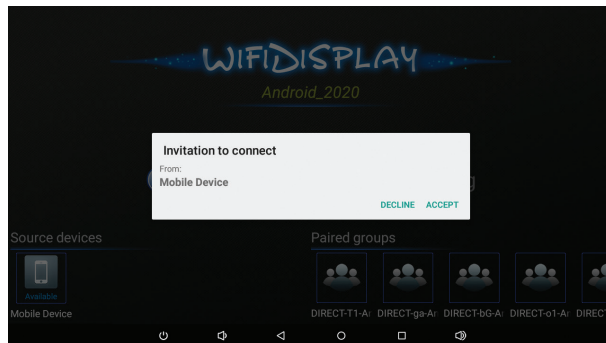


Wireless display feature (Miracast) is called different names on different devices. (i.e. Samsung device = Smart View / Screen Mirroring, LG device = Screen Sharing, etc.)

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



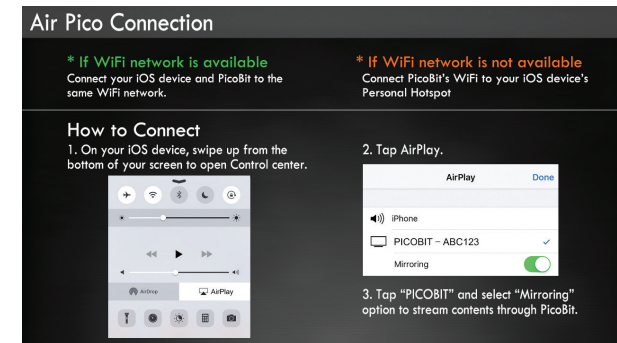
- PicoBit will display “**Invitation to Connect**” screen for confirmation.



- Use touchpad to select “**ACCEPT**”.
- PicoBit will start mirroring display upon successful connection.

Air Pico

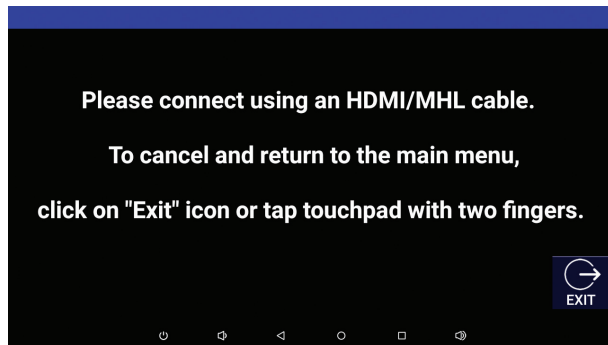
- PicoBit and the desired iOS device must be connected to the same WiFi network for this feature (If there is no WiFi network available, use iOS device’s hotspot to connect PicoBit’s WiFi to the device).
- After checking both devices are connected to the same WiFi network, select “**Air Pico**” icon on the default menu screen 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-XXXXX**” and turn on “**Mirroring**” option.
- PicoBit will start mirroring display upon successful connection.

HDMI / MHL

- On the default menu screen, select **"HDMI/MHL"** icon to enter wired connection mode.



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

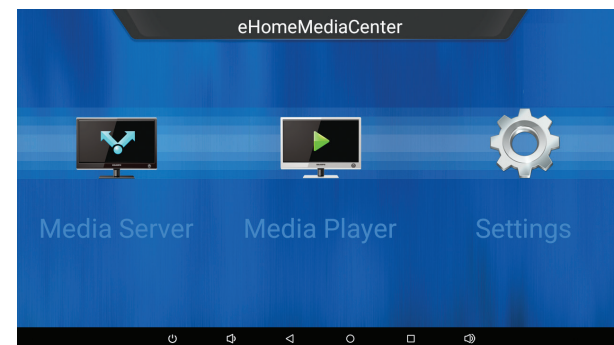
DLNA

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

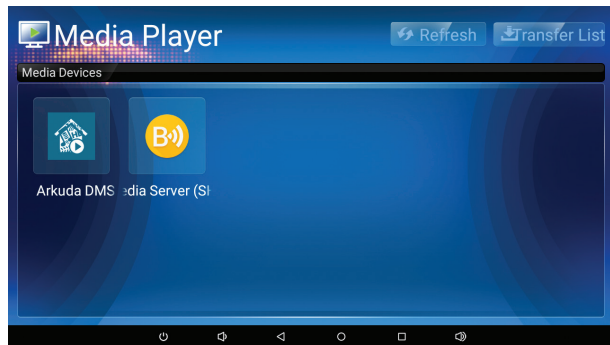
- Go to **"Apps"** icon on the default menu screen, then find **"Setting"** icon to check connected WiFi on PicoBit.



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



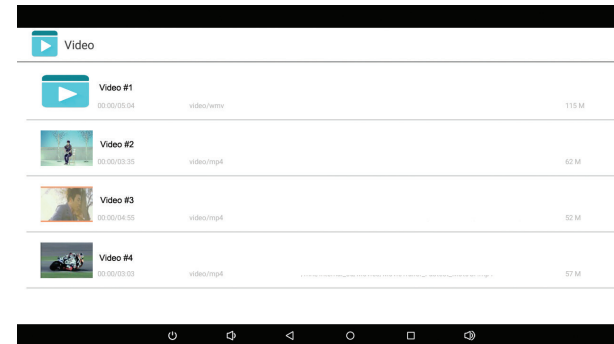
- 5 Go to the mobile device you wish to connect, and open up DLNA app (ex. ArkMc DLNA).
- 6 On PicoBit, select the **"Media Player"** option to see the list of saved media contents in connected mobile device.



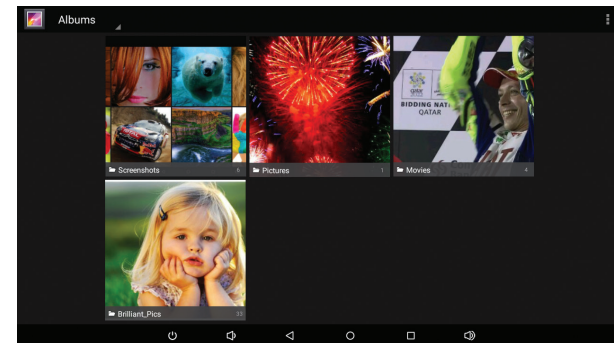
- 7 Select your device.
- 8 Find an image or a video to play through PicoBit (Files saved in SD card will be not discovered).

Micro SD Card

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



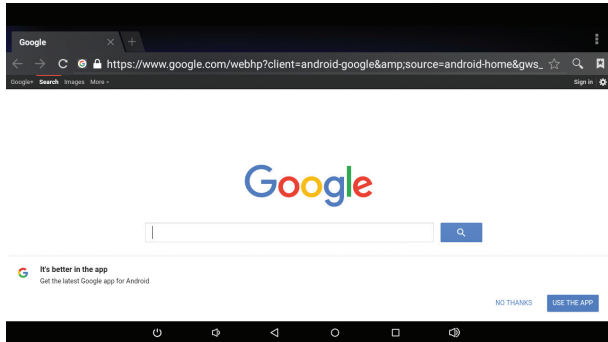
- Browse through and select the video file to play through PicoBit.
- To share images stored in the SD card, select **"Gallery"** icon on the default menu.



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

Internet

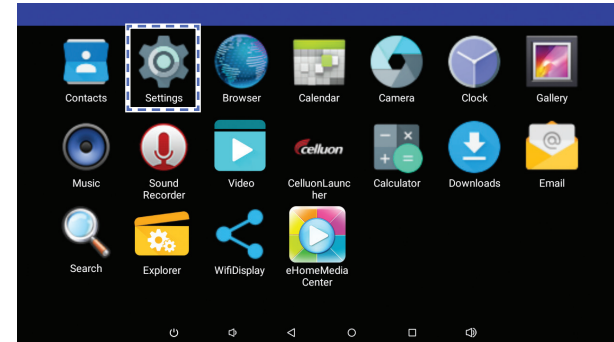
- Go to settings and connect PicoBit to WiFi network.
- On the default menu screen, select **"Internet"** icon to use internet browser.



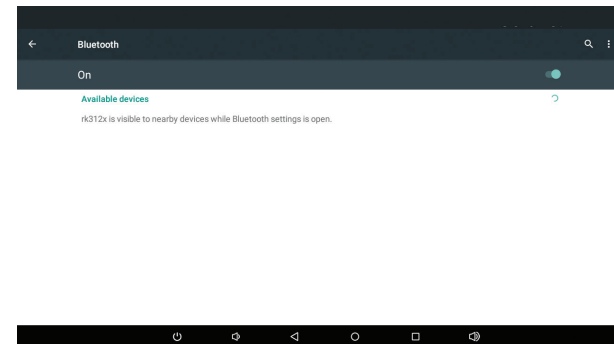
- Freely use the web to do web surfing, streaming, etc.

Bluetooth

- To connect a Bluetooth device to PicoBit, select **"Apps"** icon on the default menu.
- Find and select **"Settings"** app.



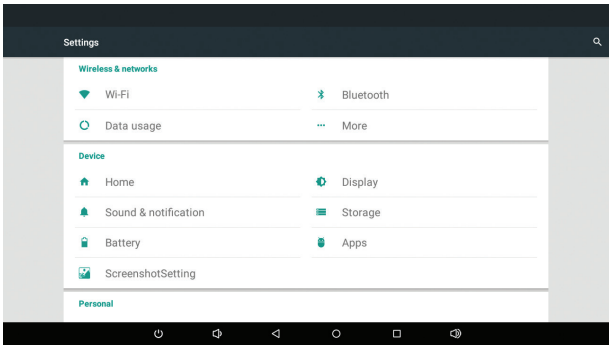
- Go to Bluetooth option and turn on Bluetooth.



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

Android Settings

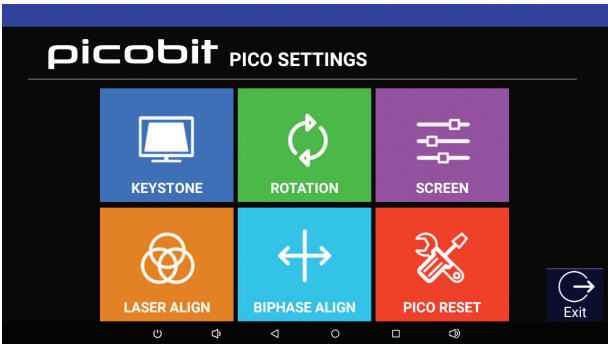
Android Settings – Make changes to basic device settings.



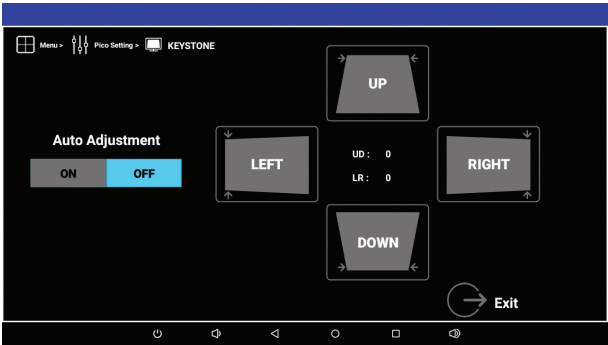
- From the main menu, select “**Apps**” icon.
- Find and select “**Settings**” app.
- Make changes to various settings as needed.

Projector Settings

Pico Settings – Make changes to projector settings. All adjustments are saved as it is made.

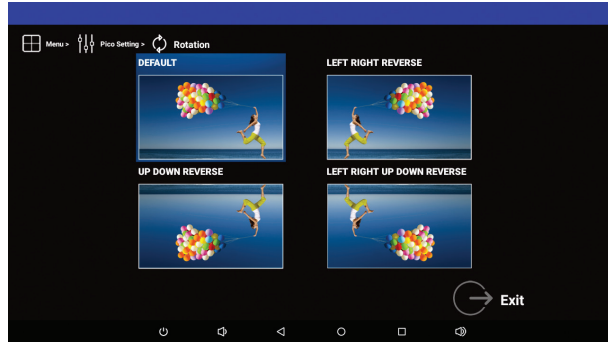


Keystone Adjustment



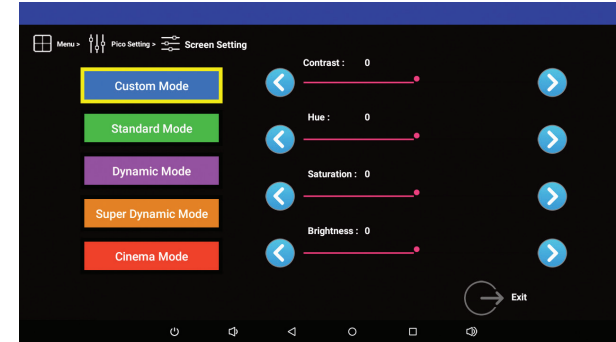
- Auto adjustment enables automatic keystone feature (only up and down angles).
- For manual adjustment, select UP, DOWN, LEFT, and RIGHT icons to adjust screen shape as needed.
- All adjustments made will be erased and reset to the default setting when the device powers off.

Screen Rotation



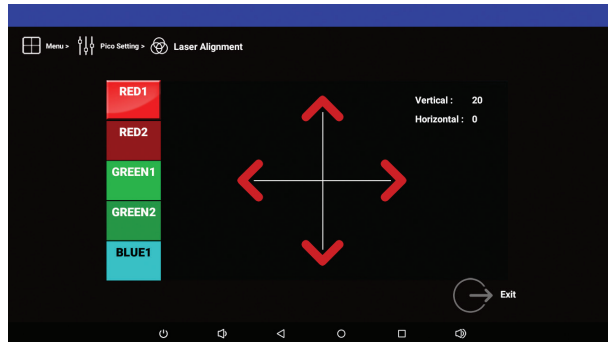
- Select icons to change screen orientation as desired.
- All adjustments made will be erased and reset to the default setting when the device powers off.

Screen Setting



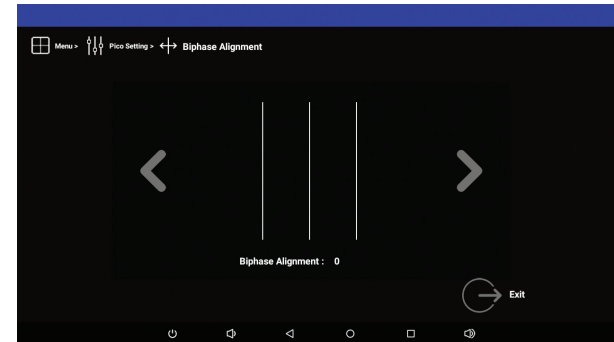
- **Custom Mode** – Users can modify various screen settings as desired.
 - Move the pink dot controller to adjust contrast, hue, saturation, brightness of the screen as desired.
 - Adjustment range: Contrast: -10 ~ 10 Hue: -15 ~ 15
Saturation: -15 ~ 15 Brightness: -30 ~ 30
- **Standard Mode (DEFAULT 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
- All the adjustments made will be erased and reset to the default Standard mode when the device powers off.

Laser Alignment



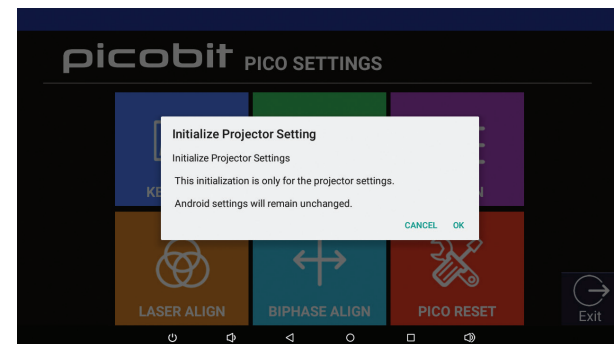
- Select up, down, left, and right arrows to adjust Red1, Red2, Green1, Green2, and Blue lasers to align the lasers.
- Align the lasers until the white cross lines are as thin as it can be.
- Adjustment range: Up & Down: -20 ~ 20
Left & Right: -120 ~ 120
- Once saved, all adjustments made will remain 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	55 ANSI lumens* (The perceived brightness is about 100 lam-based projector (DLP) lumens)
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	200 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 Cautions

- 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.

Product Certifications



· FCC ID : TCLPICOBIT



· CE1177



· RoHS



KC : MSIP-CMM-CLK-PICOBIT

· IEC-60825-1 : Class 3R Laser



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. 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.
- 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 INTERFERENCE THAT MAY CAUSE UNDESIRE OPERATION.

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.

IMPORTANT NOTE:

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.

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://_____

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)

Copyright (c) Sergey Ryazanov (<http://home.onego.ru/~ryazanov>)

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

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.

232, Gongneung-ro, SeoulTechno Park #701, Nowon-gu, Seoul, Korea (01811)

www.celluon.com

sales@celluon.com

support@celluon.com