

PHILIPS

PicoPix

Pocket Projector

PPX5110

User Manual



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Introduction

Dear customer

Thank you for purchasing this projector.

We hope you enjoy your device and its many functions!

About this user manual

With the quick start guide that is supplied with your device, you can start using your device quickly and easily. Detailed descriptions can be found in the following sections of this user manual.

Read the entire user manual carefully. Follow all safety instructions in order to ensure proper operation of your device (see **General safety information, page 4**). The manufacturer accepts no liability if these instructions are not followed.

Symbols used

Notice



Troubleshooting

This symbol indicates tips that will help you to use your device more effectively and easily.

DANGER!



Danger of personal injury!

This symbol gives warning of danger of personal injury. Physical injury or damage can result from improper handling.

CAUTION!

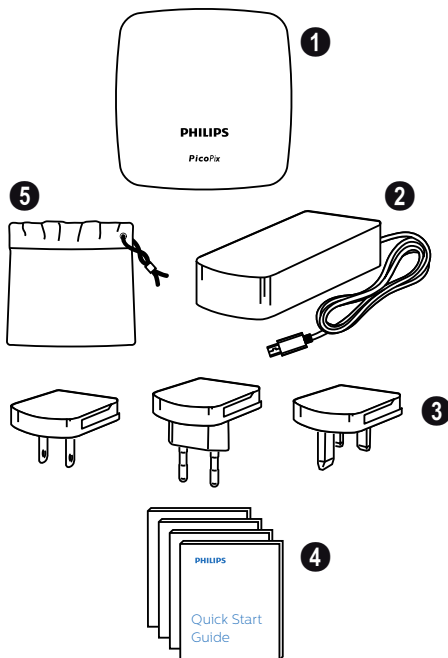


Damage to the device or loss of data!

This symbol gives warning of damage to the device and possible loss of data. Damage can result from improper handling.

What's in the box

- 1 – Pico Projector (PPX 5110)
- 2 – A/C Power adapter
- 3 – Power plugs (EU, UK, US)
- 4 – Quick start guide
- 5 – Carrying pouch



Product highlights

Connecting to devices with HDMI output

With the HDMI to mini HDMI cable you can connect the projector to a playback device (see **Connecting to devices with HDMI output, page 8**).

Wireless Screen Mirroring (Android and iOS)

With the Wireless Screen Mirroring function you can share your screen without a cable. In order to allow screen mirroring, your smartphone must support Miracast or Airplay. The projector is compatible with Miracast-compatible Android phones and iPhones with iOS 7/8/9/10 and 11.

USB Screen Mirroring (iOS)

With this function you can share your screen with the Lightning to USB cable.

1 General safety information

Do not make any changes or settings that are not described in this user manual. Physical injury, damage to the device or loss of data can result from improper handling. Take note of all warning and safety notes indicated.

Setting up the device

The device is for indoor use only. The device should be placed securely on a stable, flat surface. Position all cables in such a way that no one will trip over them, thus avoiding possible injuries to persons or damage to the device itself.

Do not operate the device in damp rooms. Never touch the main cable or the main connection with wet hands.

The device must have sufficient ventilation and may not be covered. Do not put your device in closed cabinets or boxes if it is in use.

Protect the device from direct sunlight, heat, intense temperature fluctuations and moisture. Do not place the device in the vicinity of heaters or air conditioners. Observe the information on temperature and humidity in the technical data (see **Technical data, page 19**).

When the device is on for a long time, the surface becomes hot and a warning symbol appears. The device switches automatically to stand-by mode when it gets too hot.

Do not allow liquids to leak into the device. Turn off the device and disconnect it from the main supply if liquids or foreign substances leak into the device. Have the device inspected by an authorised service centre.

Always handle the device with care. Avoid touching the lens. Never place heavy or sharp objects on the device or the power cable.

If the projector gets too hot or emits smoke, shut it down immediately and unplug the power cable. Have your device checked by an authorised service centre. Keep device away from fire.

The battery is integrated with the device. Do not disassemble and modify. The battery should be replaced by qualified service staff only.

DANGER!



Risk of explosion with incorrect type of batteries!

Do not try to replace the battery yourself.

Under the following conditions, a layer of moisture can appear inside the device which can lead to malfunctions:

- if the device is moved from a cold to a warm area;
- after a cold room is heated;
- when this device is placed in a damp room.

Proceed as follows to avoid any moisture build-up:

- 1 Seal this device in a plastic bag before moving it to another room, in order for it to adapt to room conditions.
- 2 Wait one to two hours before you take the device out of the plastic bag.

The device should not be used in a very dusty environment. Dust particles and other foreign objects may damage the device.

Do not expose the device to extreme vibrations. It may damage the internal components.

Do not allow children to handle the device without supervision. The packing materials should be kept out of the hands of children.

For your own safety, do not use the device during thunderstorms with lightning.

Repairs

Do not repair the device yourself. Improper maintenance can result in injuries or damage to the device. Your device must be repaired by an authorised service centre.

Find details of authorised service centres on the warranty card.

Do not remove the type label from your device; this will void the warranty.


Power supply

Use only a power adapter which is certified for this product **(see Technical data, page 19)**. Check whether the mains voltage of the power supply matches the mains voltage available at the setup location. This device complies with the voltage type specified on the device.

The capacity of the battery diminishes with time. If the device functions only with the power supply, the battery is defective. Contact an authorised service centre to replace the battery.

CAUTION!



Always use the  button to turn off the projector.

Turn off the device and unplug from the power outlet before cleaning the surface **(see Cleaning, page 15)**. Use a soft, lint-free cloth. Never use liquid, gaseous or easily flammable cleansers (sprays, abrasives, polishes, alcohol). Do not allow any moisture to reach the interior of the device.

DANGER!



Risk of eye irritation!

This device is equipped with a high power LED (Light Emitting Diode), which emits very bright light. Do not look directly into the projector lens during operation. This could cause eye irritation or damage.

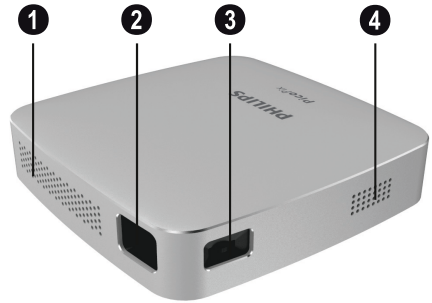
2 Overview

Back and bottom view



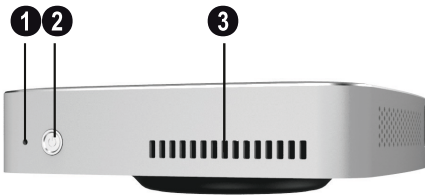
- ❶ – Tripod socket
- ❷ – On/Off/charging LED
The blue charging LED blinks during charging. If the projector is fully charged the LED stops blinking.
- ❸ – **DC-IN** for power supply
- ❹ – **Audio out** socket (headphone)
- ❺ – **USB** port to allow wired screen mirroring with iOS
- ❻ – **HDMI** input

Front and side view



- ❶ – Vents
- ❷ – Projection lens
- ❸ – Focus wheel to adjust image sharpness
- ❹ – Speaker

Side view



- ❶ – **Reset** hole
- ❷ – **Power / Mode**
To turn on and off the device, press the **⏻** button for **eight** seconds.
To switch between iOS and Android mode press the **⏻** button for **one** second.
- ❸ – Vents

3 Initial operation


Setting up the device

Place the projector on a flat surface in front of the projection surface.

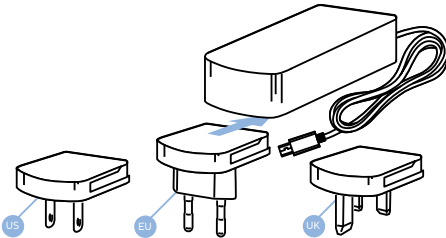
Connecting power supply

CAUTION!

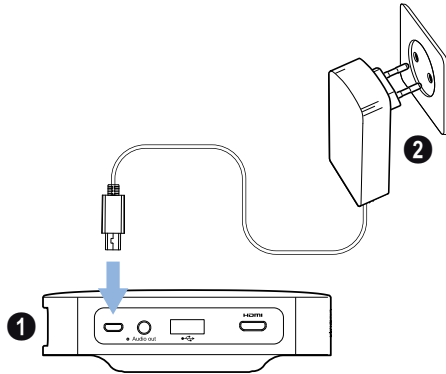


Always use the  button to turn on and off the projector.

- 1 Slide the appropriate plug (EU, UK, US) onto the power adapter.



- 2 Connect one end of the power cable to the **DC IN** socket on the rear side of your device **(1)**.
- 3 Plug the power cable to outlet in the wall **(2)**.




Charging the battery

The projector is built with an embedded battery for mobile use. The battery will be charged only when the device is not in use (Power off).

Before using the first time, charge the projector for **five** hours.


The blue charging LED blinks during charging. If the projector is fully charged the LED stops blinking.

DANGER!

 **Risk of explosion with incorrect type of batteries!**
Do not try to replace the battery yourself.

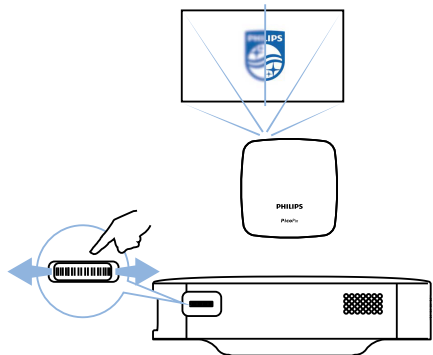
Initial installation

Turning on the projector

- 1 To turn on (and off) the device, press the  button for **eight** seconds till the initial screen appears.



- 2 Turn the projector towards a suitable projection surface or wall. Note that the distance to the projection surface must be a minimum of 0.5 metres and a maximum of approx. 3 metres. Make sure the projector is in a secure position.
The distance between the projector and the screen determines the actual size of the image.
- 3 Use the focus wheel on the left side to adjust the image sharpness.

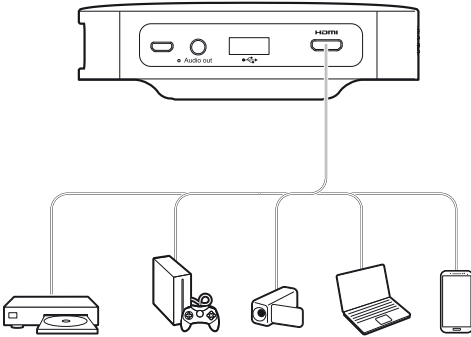


4 Connect to playback device

Connecting to devices with HDMI output

Use a HDMI to mini HDMI cable to connect the projector to a Blu-ray player, gaming console, camcorder or digital camera, notebook PC or smartphone.

- 1 Connect the cable to the projector's mini **HDMI** socket on the rear or side of the device.



- 2 Connect the HDMI plug to the **HDMI** socket of the playback device.

Connecting to external speakers or headphones

DANGER!

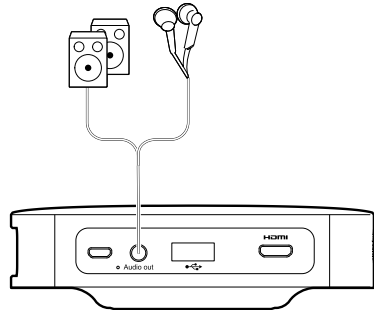


Danger of hearing damage!

Before connecting the headphones, turn down the volume on the device.

Do not use the device over a longer time at high volume – especially when using headphones. This could lead to hearing damage.

- 1 Connect the external speakers or headphones to the projector's **Audio out** socket. The device speakers deactivate automatically when the external speakers or headphones are connected.



5 Wireless projection with Miracast-compatible Android devices

Notice

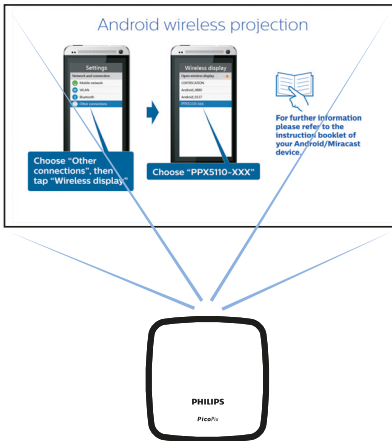


In order to allow Screen Mirroring, your device must support Miracast. Not all Android phones have this function. Very often it's also hidden under different names such as Screencast, Screen Sharing, WiFi Direct, Wireless Display etc.

For further information please refer to the instruction booklet of your Android/Miracast device.

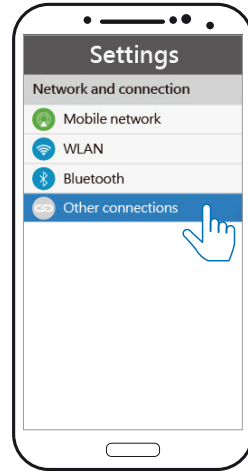
- 1 Switch the projector to Android mode. To switch between iOS and Android mode press the button for **one** second.

Android mode

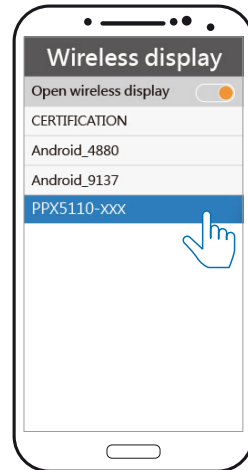


- 2 In the *Settings* of your Android phone select *Network and connection*.

- 3 Select *Other connections*, then press *Wireless display*.



- 4 In the *Wireless display* tab select *PPX5110-XXX*.




Notice



The wireless mirroring projection works through the Wi-Fi Direct protocol. It can project most Android devices via Miracast.


6 Projection with iOS devices


Notice

 This function has been tested with iOS 11. Other types and models may vary.

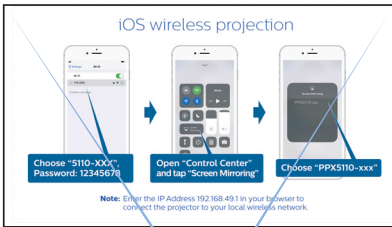
Wireless Screen Mirroring

Notice

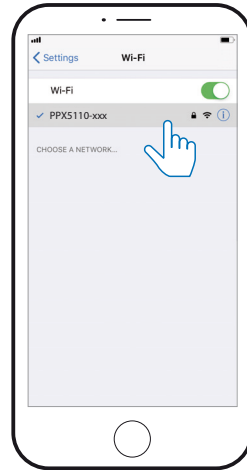
 Not all content can be shared between the iPhone and the projector. In particular, videos which are copy protected or stored on the Internet (e.g. YouTube) can't be played on the projector.

- 1 Switch the projector to iOS mode. To switch between iOS and Android mode press the  button for **one** second.

iOS mode



- 2 In the *Settings* of your iPhone select *PPX5110-xxx* and enter the Wi-Fi password 12345678 if requested.



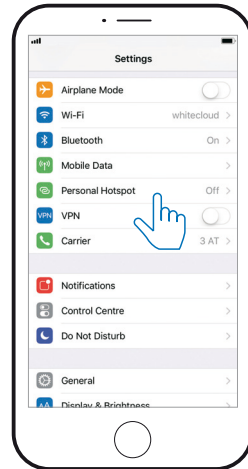
- 3 Open the *Control Centre* by sliding up on the screen, then select *Screen Mirroring*.




4 Select PPX5110-xxx.

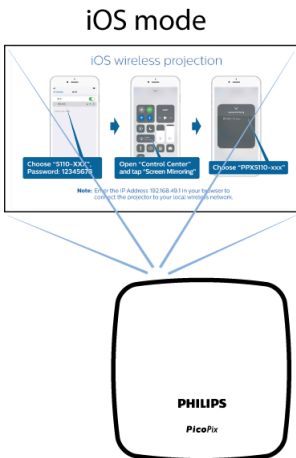


2 In the Settings of your iPhone select Personal Hotspot.

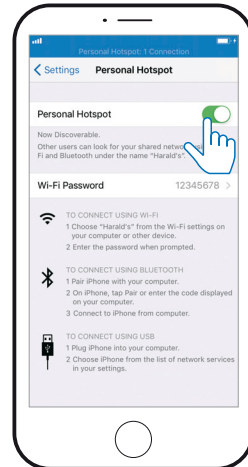


USB Screen Mirroring (iOS)

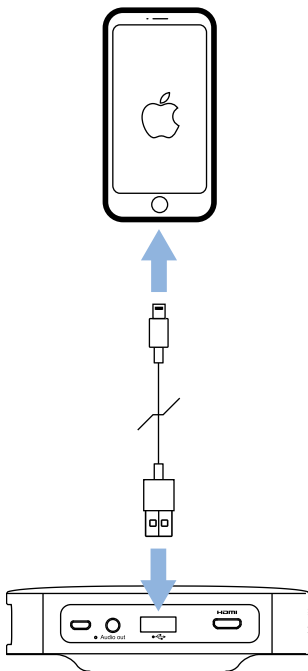
1 Switch the projector to iOS mode. To switch between iOS and Android mode press the  button for **one** second.



3 Switch the *Personal Hotspot* to On.



4 Connect the Lightning cable to the projector's **USB** port and the other end to the iPhone.



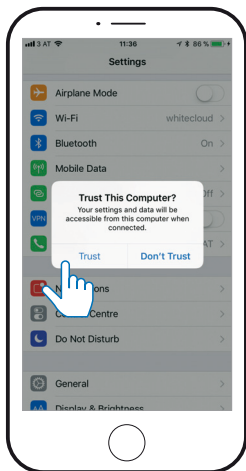
6 Open the *Control Centre* by sliding up on the screen, then select *Screen Mirroring*.



7 Select *PPX5110-xxx*.




5 Confirm the pop-up message on your iPhone.



7 Connecting the phone to the Wi-Fi network created by the projector

Enter the IP address **192.168.49.1** in the browser address of your smartphone to set up the wireless environment. This will enable smartphone internet browsing with wireless projection.

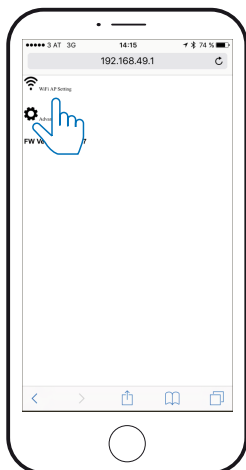
- 1 Switch to iOS mode by pressing the  button for **one** second.
- 2 Connect the phone to the hotspot created by the projector.

Notice

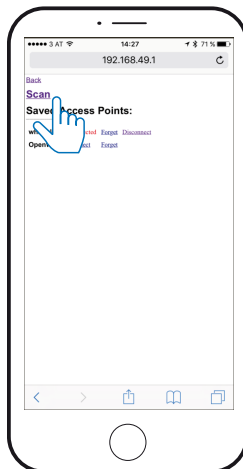


This function depends on type and model of your phone.

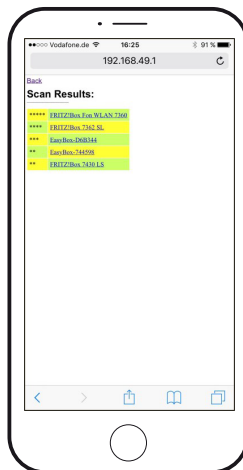
- 3 Enter *192.168.49.1* in your favourite browser.
- 4 Select *Wi-Fi AP Setting*.



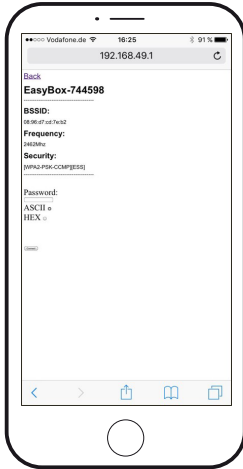
- 5 Select *Scan*.



- 6 Select your wireless network.



7 Enter a password and press *Submit*.



8 Service

Care instructions for the battery

The capacity of the built-in battery diminishes with time. You can prolong the life of the battery if you observe the following points:

- Without a power supply, the device operates from the built-in battery. When the battery does not have sufficient capacity, the device turns off. In this case connect the projector to the power supply.
- Charge the battery regularly. Don't store the device with a completely discharged battery.
- If the device is not used for several weeks, discharge the battery a little by using the device before storing it.
- Keep the device and the battery away from sources of heat.
- If the projector does not charge after connecting to the power supply, use a small pin and push it gently in the small **Reset** hole.

DANGER!



Risk of explosion with incorrect type of batteries!

Do not try to replace the battery yourself.

Battery deep discharge

When the battery is in deep discharge, it may take longer for the actual charging process to start. In this case, try charging the projector for at least **five** hours before using it.

Cleaning

DANGER!



Instructions for cleaning!

Use a soft, lint-free cloth. Never use liquid or easily flammable cleansers (sprays, abrasives, polishes, alcohol, etc.). Do not allow any moisture to reach the interior of the device. Do not spray the device with any cleaning fluids.

Wipe over the surfaces gently. Be careful that you do not scratch the surfaces.

Cleaning the lens

Use a soft brush or lens cleaning paper for cleaning the lens of the projector.

DANGER!



Do not use any liquid cleaning agents!

Do not use any liquid cleaning agents for cleaning the lens, to avoid damaging the coating film on the lens.

Wireless firmware update

CAUTION!



Risk of data loss!

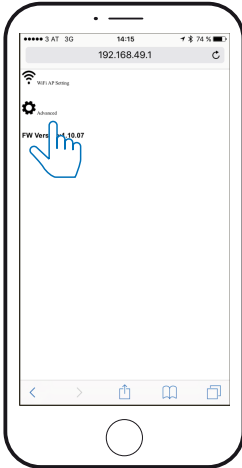
Do not interrupt the update process.

Notice

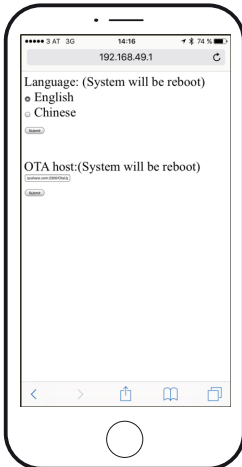


Make sure that the projector is connected to a power source with the micro USB cable.

- 1 Connect the projector to the Internet (**see Connecting the phone to the Wi-Fi network created by the projector, page 13**).
- 2 Select *Advanced*.



- 3 Press *Submit*. below the OTA host.



The projector will automatically reboot and connect to the update server.

Notice






If the update server has new firmware it will be automatically downloaded and installed.


Troubleshooting

Power cycling

If a problem occurs that cannot be corrected with the instructions in this user manual, follow the steps given here.

- 1 Turn off the device by pressing the  button for **eight** seconds.
- 2 Wait at least **ten** seconds.

- 3 Turn on the device by pressing the  button for **eight** seconds.
- 4 Use a small pin and push it gently in the small **Reset** hole.
- 5 Turn on the device by pressing the  button for **eight** seconds.
- 6 If the problem persists, please contact our technical service centre or your dealer.

Problems	Solutions
How to switch on/off the projector.	<ul style="list-style-type: none">• Press and hold the  button for eight seconds.
What can I do when the projector does not charge or cannot be switched on?	<ul style="list-style-type: none">• Most likely the battery is completely empty. First try to charge the projector for at least four hours.• If this does not work, use a small pin and push it gently in the small Reset hole.
What can I do when the projector cannot be turned off?	<ul style="list-style-type: none">• Use a small pin and push it gently in the small Reset hole. If it does not work, disconnect the power cable.
How can I connect an external device via HDMI?	<ul style="list-style-type: none">• The HDMI connector of the projector is far too small for a standard HDMI cable. You need to use a HDMI to mini HDMI cable to connect an external device to the projector.
The image from the external HDMI device does not appear.	<ul style="list-style-type: none">• Disconnect the HDMI cable or switch off the HDMI device.• Wait three seconds.• Reconnect the HDMI cable or switch on the HDMI device again.
What to do if Screen Mirroring does not work anymore after a firmware update of an Android or iOS device?	<ul style="list-style-type: none">• We recommend checking regularly for new firmware of your projector (see Wireless firmware update, page 16).
Screen mirroring doesn't work with my Android device.	<ul style="list-style-type: none">• In order to allow screen mirroring, your device must support Miracast. Not all Android phones support this function. Very often it's also hidden with different names such as Screencast, Screen Sharing, Wi-Fi Direct, Wireless Display etc.• Please refer to the user manual of your Android phone to check if this function is supported and how it can be enabled.

Problems	Solutions
<p>When I view videos, the sound or the picture is sometimes distorted or the sound is not synchronous with the picture.</p>	<ul style="list-style-type: none"> • The available Wi-Fi bandwidth is not enough to send the video flawless from the smartphone to the projector. This can happen if one or more Wi-Fi networks operate in the same frequency range nearby. Also certain IoT devices (e.g. ZigBee enabled devices) operate in this frequency range. • Your smartphone is not fast enough to compress the screen data and send it simultaneously over Wi-Fi. • Your smartphone may maintain parallel connections to your home network and the projector. This will reduce the available bandwidth. Disabling temporarily the connection to your home network may help.
<p>What is supported by the micro USB port?</p>	<ul style="list-style-type: none"> • The micro USB port is for charging only. • You can either use the included charging cable or an external power bank. • The minimum requirement to ensure proper operation is 3 A at 5 V. • Do not operate the projector with less than this minimum requirement.
<p>USB projection does not work.</p>	<ul style="list-style-type: none"> • Make sure you are using iOS smartphone. It does not function with Android. • Make sure you have selected iOS mode. • Make sure “Hotspot” function of iPhone is switched to “On”.
<p>Can I connect a power bank to the projector?</p>	<ul style="list-style-type: none"> • The power bank has to be connected to the micro USB port of the projector. • The minimum requirement to ensure proper operation is 3 A at 5 V. • Do not operate the projector with less than this minimum requirement.
<p>The temperature of the projector’s surface is warm.</p>	<ul style="list-style-type: none"> • For this projector it is normal to generate moderate heat during operation.
<p>What to do if the projector does not work when connecting to a notebook PC?</p>	<ul style="list-style-type: none"> • Check that the HDMI cable is plugged correctly. • Make sure that the notebook PC has been switched to projector display.

9 Appendix

Technical data

Technology / optical

Optical technology	DLP®
Light source	RGB LED
Resolution	854 × 480 pixel (WVGA)
LED lifetime	up to 20,000 h
Contrast	1000:1
Aspect ratio.....	16:9
Brightness.....	up to 100 lumen
Projection image size (diagonal).....	
.....	20" to 120" (51 to 305 cm)
Projection distance	21" to 125"(53 to 319 cm)

Connection

Wireless standard	802.11b/g/n
HDMI	mini HDMI
Micro USB port	yes
Audio out.....	3.5 mm jack

Power

DC-in.....	5 V, 3 A required
Embedded battery	3.7 V, 1,900 mAh
Battery lifetime	up to 70 min in projection

Devices supported

Android	Miracast support required
iOS	7/8/9/10/11

Product details

Dimensions (L × W × H).....	98 × 98 × 27.5 mm
.....	3.86" × 3.86" × 1.08"
Weight	215 g / 7,58 oz

Package content

PPX5110, AC adapter, quick start guide, carrying pouch, power plugs (EU, UK, US)



The CE marking certifies, that the product meets the main requirements of the European Parliament and Council directives 2014/35/EU, EN55032:2012+AC:2013(Class B), CISPR 32:2012, EN61000-3, IEC61000-4, EN55024, EN55024/A1, Draft EN 301 489-1, Draft EN 301 489-17, EN 300 328, EN 62311:2008, EN 60950/A1, EN60950/A2, EN60950/A11, EN 60950/A12 on information technology equipment, regarding safety and health of users and regarding electromagnetic interference.

The declaration of compliance can be consulted on the site www.picopix.philips.com.

Preservation of the environment as part of a sustainable development plan is an essential concern of X-GEM SAS. The desire of X-GEM SAS is to operate systems respecting the environment and consequently it has decided to integrate environmental performances in the life cycle of these products, from manufacturing to commissioning use and elimination.



Federal Communications Commission (FCC) Statement: You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

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

- Adjust or relocate the receiving antenna.
- Increase the separation between the device and receiver.
- Connect the device 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.

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;
- 2 this device must accept any interference received, including interference that may cause undesired operation.

FCC RF Radiation Exposure Statement: This transmitter must not be co-location or operating in conjunction with any other antenna or transmitter. This device complies with FCC RF radiation exposure limits set forth for an uncontrolled environment.

This device should be installed and operated with a minimum distance of 20 centimetres between the device and your body.

Canada Regulatory Compliance

This device complies with Industry Canada CAN ICES-3 (B)/NMB-3(B)

RSS-Gen & RSS-247 statement: This device complies with Industry Canada RSS standard(s).

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.

RF Radiation Exposure statement: The device meets the exemption from the routine evaluation limits in section 2.5 of RSS102 and users can obtain Canadian information on RF exposure and compliance.

This device should be installed and operated with a minimum distance of 7.8 inches (20 centimetres) between the device and your body.



Packaging: The presence of the logo (green dot) means that a contribution is paid to an approved national organisation to improve package recovery and recycling infrastructures. Please respect the sorting rules set up locally for this kind of waste.

Batteries: If your product contains batteries, they must be disposed of at an appropriate collection point.



Product: The crossed-out waste bin symbol on the product means that the product belongs to the family of electrical and electronic equipment. In this respect, the European regulations ask you to dispose of it selectively;

- At sales points in the event of the purchase of similar equipment.
- At the collection points made available to you locally (drop-off centre, selective collection, etc.).

In this way you can participate in the re-use and upgrading of Electrical and Electronic Equipment Waste, which can have an effect on the environment and human health.

The paper and cardboard packaging used can be disposed of as recyclable paper. Have the plastic wrapping recycled or dispose of it in the non-recyclable waste, depending on the requirements in your country.

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Headquarters:

X-GEM SAS

9 rue de la Négresse

64200 Biarritz – FRANCE

Tel: +33 (0)5 59 41 53 10

www.xgem.com

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