



i-tec C31TRIPLEDOCKPDPRO USB-C Thunderbolt Triple Display Docking Station User Guide

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C31TRIPLEDOCKPDPRO USB-C Thunderbolt Triple Display Docking Station

USB-C / THUNDERBOLT TRIPLE DISPLAY DOCKING STATION + POWER DELIVERY User guide

Please read the entire instruction manual carefully. A detailed manual is available on our website www.i-tec.cz/en/ in the tab „Manuals, drivers“. In case of any issues, please contact our technical support at:

support@itecproduct.com



IMPORTANT NOTICE

In order to use the full potential of the dock, it is important that the GPU in the notebook supports DisplayPort 1.4 with DSC.

If the GPU in the laptop supports DisplayPort 1.4 without DSC, or DisplayPort 1.2, the dock will work, but with limitations in similarly maximum resolutions of external monitors. See the SPECIFICATIONS section for more information.

DSC – short for Display Stream Compression – is a compression method that allows for “visually lossless” video compression that allows for higher resolution to be transmitted.

GLOSSARY OF TERMS

Interface / port / connector / input / slot – the place where two devices are physically connected.

Controller – a semiconductor component (so-called chipset) in a notebook, tablet, PC, ensuring the operation of one of the ports.

USB-C / USB Type-C – is a new symmetrical connector and standard introduced by USB-IF in its USB 3.1 specification. Windows 10 (Microsoft), Mac OS X

(Apple) and Chrome OS and Android (Google) introduced native support for this connector. It enables faster charging, power, so-called dual-role (not only host but also a guest), support for so-called alternative modes – Alt Mode (DisplayPort, MHL, Thunderbolt 3, Power Delivery), and error notification via the device Billboard.

Alternative Modes (Alt Mods) – special modes for the USB-C connector that can be supported. Currently the most popular are DisplayPort / DockPort, MHL, and Thunderbolt. Devices with this feature of the connector and cable allow image transfer while retaining the other functions of the connector (for data transfer and charging via Power Delivery).

DisplayPort / DockPort Alt mode – this mode allows image transfer via USB-C connector and cable.

USB Power Delivery (USB PD) – an optional feature of the USB-C connector.

A connector with this support can both charge and be charged and supports loads from 10W to 100W (depending on profiles 1-5). In Windows 10, USB Power Delivery cannot be applied to the former USB 3.0/2.0 A, B, and micro B ports.

USB 3.1 / 3.0 / 2.0 – standard for USB interface / port for connecting various USB devices. Various USB devices can be connected to the docking station or adapter using a USB Type-A interface. The USB Type B port is used to connect the dock or adapter to a laptop, tablet, or PC.

HDMI/Display Port – A standard for a digital graphics interface/port used to connect monitors and other graphic display devices.

Audio – a term for audio input (microphone) or output device (headphones/ speakers).

PACKAGE CONTENTS

- i-tec USB-C docking station
- USB-C cable (length 100 cm)
- Power adapter (DC output: 20V / 6.5A, DC cable 150cm, AC cable 180cm)
- Quick Start

SPECIFICATIONS

- 1x USB-C port for connection to a laptop
- Power Delivery: 100W
- Video Ports: 2x DisplayPort, 1x HDMI
- Resolution:

USB-C/Thunderbolt™ 3 with DisplayPort 1.4 DSC support

1 monitor – 1x DP – up to 5K/60Hz

1 monitor – 1x DP or 1x HDMI – up to 4K/60Hz

2 monitors – 1x HDMI + 1 DP or 1x DP + 1x DP – up to 2x 4K/60Hz

3 monitors – 1x HDMI + 1x DP + 1x DP – up to 3x 4K/30Hz

USB-C/Thunderbolt™ 3 with DisplayPort 1.4 support without DSC support

1 monitor – 1x DP or 1x HDMI – up to 4K/60Hz

2 monitors – 1x HDMI + 1 DP or 1x DP + 1x DP – up to 2x 2560×1440/60Hz

3 monitors – 1x HDMI + 1x DP + 1x DP – up to 3x 1920×1080/60Hz

USB-C/Thunderbolt™ 3 with DisplayPort 1.2 support

1 monitor – 1x DP or 1x HDMI – up to 4K/30Hz

2 monitors – 1x HDMI + 1 DP or 1x DP + 1x DP – up to 2x 1920×1080/60Hz

3 monitors – 1x HDMI + 1x DP + 1x DP – up to 3x 1920×1080/30Hz

- 3x USB 3.2 port Gen. 2
- 1x Gen. 2 USB 3.2 port with fast charging support (BC 1.2)
- 1x Ethernet GLAN RJ-45 port (Realtek RTL8153)
- 1x SD slot
- 1x microSD slot
- 1x 3.5mm Audio combo connector
- 1x power input (20V/6.5A)
- ON/OFF switch to turn the docking station on and off
- LED indication
- Support for Kensington lock
- USB-C 3.1 cable (100 cm)
- OS: Windows 10/11, macOS, iPad, Android, Chrome OS, and Linux with the latest updates
- Product dimensions: 214 x 84 x 26 mm
- Product weight: 400 g

Note for macOS: macOS does not support MST technology (2 or more monitors in extended mode). No dock using USB-C DisplayPort Alt Mode supports connecting two or more monitors on macOS, only Thunderbolt 3 docks and DisplayLink docks do.

DOCKING STATION DESCRIPTION



1. ON/OFF switch – to turn the docking station on/off
2. LED indication
3. 1x USB 3.2 port Gen. 2 (10Gb/s) with fast charging, BC 1.2 specification
4. 1x microSD slot
5. 1x SD slot
6. 1x 3.5mm Audio combo connector
7. Support for Kensington lock
8. Ethernet GLAN RJ-45 port – supports 10/100/1000 Mbps
9. 3x USB-A 3.1 port Gen. 2 (10 GB/s)
10. 2x DisplayPort – allow connection of up to one 5K/60Hz monitor.
11. 1x HDMI – for connecting a monitor with HDMI input
12. USB-C port Data / DP Alt Mode / Power Delivery – to connect the docking station to the USB-C port of the laptop. This port supports the Power Delivery function on profile 4, max 85W.
13. Power input (20V/6.5A)



SYSTEM REQUIREMENTS

Hardware requirements:

Devices with a free USB4, USB-C, Thunderbolt3 or Thunderbolt4 port

Power Delivery requirements: devices with a free USB4, USB-C, Thunderbolt3 or Thunderbolt4 port with “Power Delivery” support.

Video output requirements: devices with a free USB-C port with “DisplayPort Alternate Mode” support or a USB4, Thunderbolt 3 or Thunderbolt4 port.

- Operating System: Windows 10/11, macOS, iPad, Android, Chrome OS, and Linux with the latest updates

Once connected, the drivers for the docking station are automatically installed from the system.

If LAN installation is required, please download the current drivers from our website www.i-tec.cz under the “Download” tab for this product.

WARNING!

Before plugging in the dock, make sure you have the latest drivers for your device and an updated BIOS installed on your system.

CONNECTING A HDMI / DISPLAYPORT MONITOR

The docking station is equipped with 1x HDMI and 2x DisplayPort 4K port for the connection of an external monitor or projector with an HDMI / DP interface. Connect the monitor to the docking station using a high-quality HDMI / DP cable. During the installation of an additional monitor, the screen of the device can flicker which is a standard condition

– 1 monitor connected via 2 DisplayPort cables – resolution up to 5K 5120×2880/60Hz.

1



2



5K resolution is only supported if your laptop's USB-C/Thunderbolt™ 3 connector supports DisplayPort 1.4 DSC.
 – 1 monitor connected via DisplayPort/ HDMI cable – resolution up to 4K 3840×2160/60Hz.
 4K/60Hz resolution is only supported if your laptop's USB-C/Thunderbolt™ 3 connector supports DisplayPort 1.4 DSC or DisplayPort 1.4 without DSC.
 If the USB-C/Thunderbolt™ 3 only supports DisplayPort 1.2, the maximum resolution is 4K 3840×2160/30Hz.
 – 2 monitors connected via DisplayPort/ HDMI cables – resolution up to 4K 3840×2160/60Hz.

3



Only if your laptop's USB-C/Thunderbolt™ 3 connector supports DisplayPort 1.4 DSC.
 If the USB-C/Thunderbolt™ 3 only supports DisplayPort 1.4 without DSC, the maximum resolution is 2x 2560×1440/60Hz
 If the USB-C/Thunderbolt™ 3 only supports DisplayPort 1.2, the maximum resolution is 2x 1920×1080/60Hz.



If the USB-C/Thunderbolt™ 3 only supports DisplayPort 1.4 without DSC, the maximum resolution is 3x 1920×1080/60Hz.

If the USB-C/Thunderbolt™ 3 only supports DisplayPort 1.2, the maximum resolution is 3x 1920×1080/30Hz.

Note: 3 external monitors can only be connected when the laptop's internal screen is off. This is a limitation of the Intel graphics card.

The resolution, the frame rate, and the maximum number of connected external monitors depend on the capabilities of the host PC/laptop.

CONNECTING TO THE LAN

The GLAN RJ-45 port is used to connect to an Ethernet network to a router /switch / HUB and to the Internet, supporting speeds of 10 / 100 / 1000 Mbps.

USB DEVICE CONNECTION

Use the USB-C 3.1 port and USB-A 3.1 ports to connect a keyboard, mouse, external drive, printer, and other peripherals, or use them to connect a HUB for additional free USB ports. In this case, we recommend using a HUB with an external power supply. In case the connected device is not charging or not working, then plug the original/external USB-C power adapter into the power connector of the parent laptop/Mac/smartphone/tablet or USB-C Power

The delivery port on the dock for power support.

NOTES ON USING THE USB-C PORT

Fully compatible devices/systems (Alt Mode & Power Delivery) USB-C is a new standard with a great variety for use, while compatibility information is complex. Some USB-C devices/systems support Alt Mode video output while others do not. Some can be powered and charged via

USB-C Power Delivery, while others cannot.

Partially compatible devices (support either Alt Mode or Power Delivery, not both)

Many current USB-C devices that support Alt Mode video output do not support charging via USB-C Power Delivery. These devices still need their original chargers for charging. Conversely, some USB-C phones and tablets can charge via Power Delivery, but most do not support Alt Mode video output.

Incompatible devices/systems

The dock relies on new features introduced with USB 3.1 and as such, the USB-C Power Delivery feature is not backward compatible with USB 3.0/2.0 for charging older devices. Additionally, USB-A 3.0/2.0 (Male) to USB-C (Female) converters are not compatible for connecting USB-C devices in the USB-A 3.0 ports of the dock. Most current phones and tablets with a USB-C port do not support Alt Mode video output, and some do not support USB-C

Power Delivery. Check the device documentation or contact the device manufacturer to verify suitability with these technologies.

CHARGING AND POWER SUPPLY

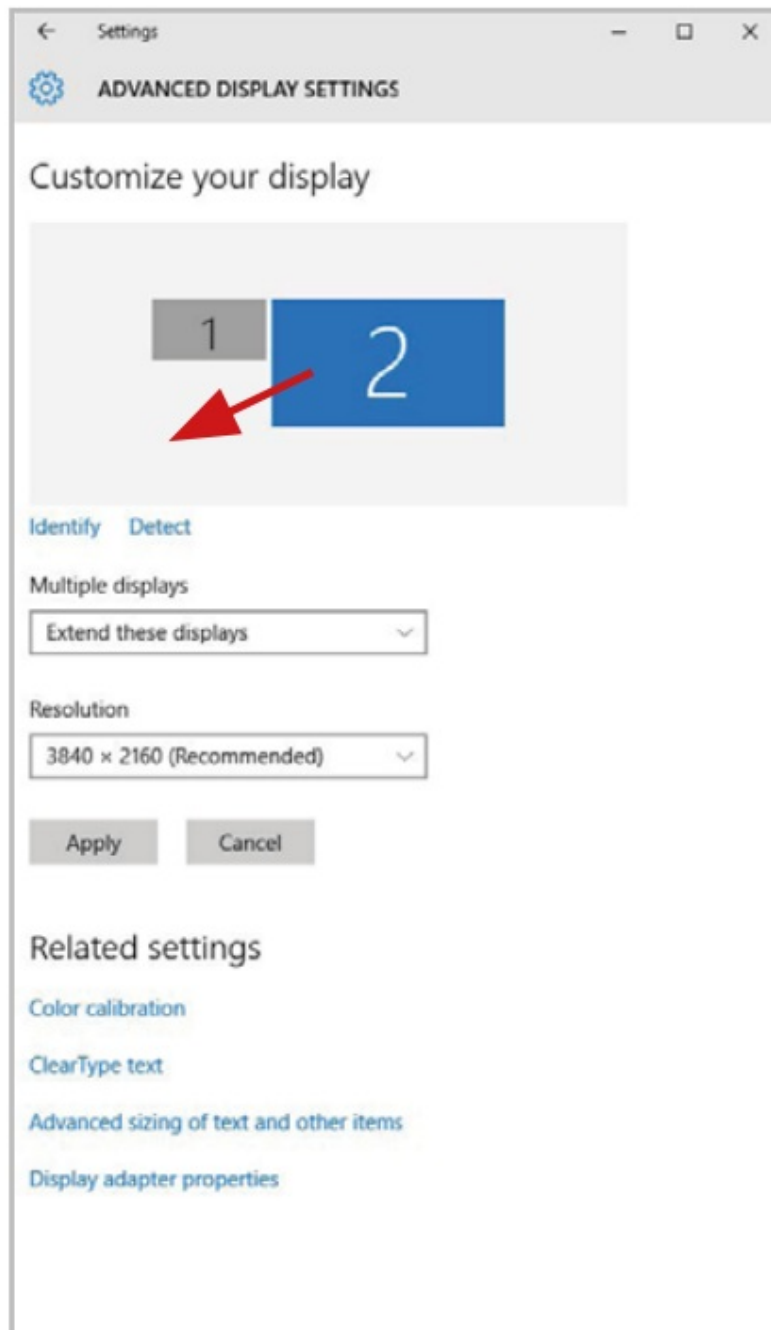
The adapter offers 1x USB-C Power Delivery port, which is designed to power the connected “parent” device using the original/external AC adapter and to charge devices connected via USB-C or USB-A 3.0 ports. The dock has the ability to charge the host up to 85W via the standard USB-C Power Delivery port. As mentioned above, some devices that support video output via USB-C cannot be charged via USB-C. An original charger must be used for these devices/systems.

The majority of problems with the docking station and the connected peripheral devices can be solved by disconnecting the USB-C cable of the docking station from the USB-C port of the PC / Mac/smartphone and reconnecting after approximately 10 s.

USING IN WINDOWS OS

Advanced configuration for the graphics – after connecting the monitor and clicking on the settings for “Image Resolution” in Windows, you can select the monitor you want to use.

By clicking on the second monitor and moving it you can position this monitor as required relative to the original monitor of your laptop/tablet



Now you can set Extend and Mirror mode:

- Mirror mode: on the monitor select the 2 nd Monitor, select Several monitors → Mirror this display → OK.
- Extend mode: on the monitor select the 2 nd Monitor, select Several monitors → Extend this display → OK.



Mirror Mode

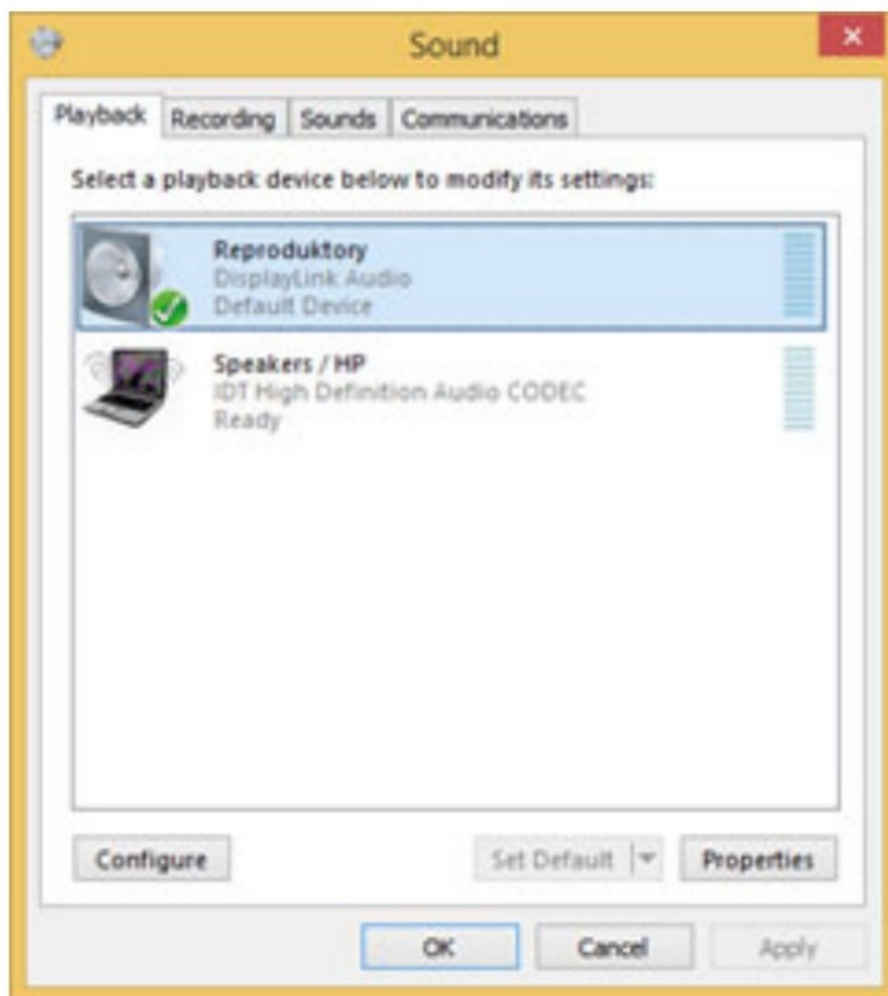


Extended Mode



Mirror and Extended mode

Audio settings – this will allow audio settings in the Control Panels → Audio.

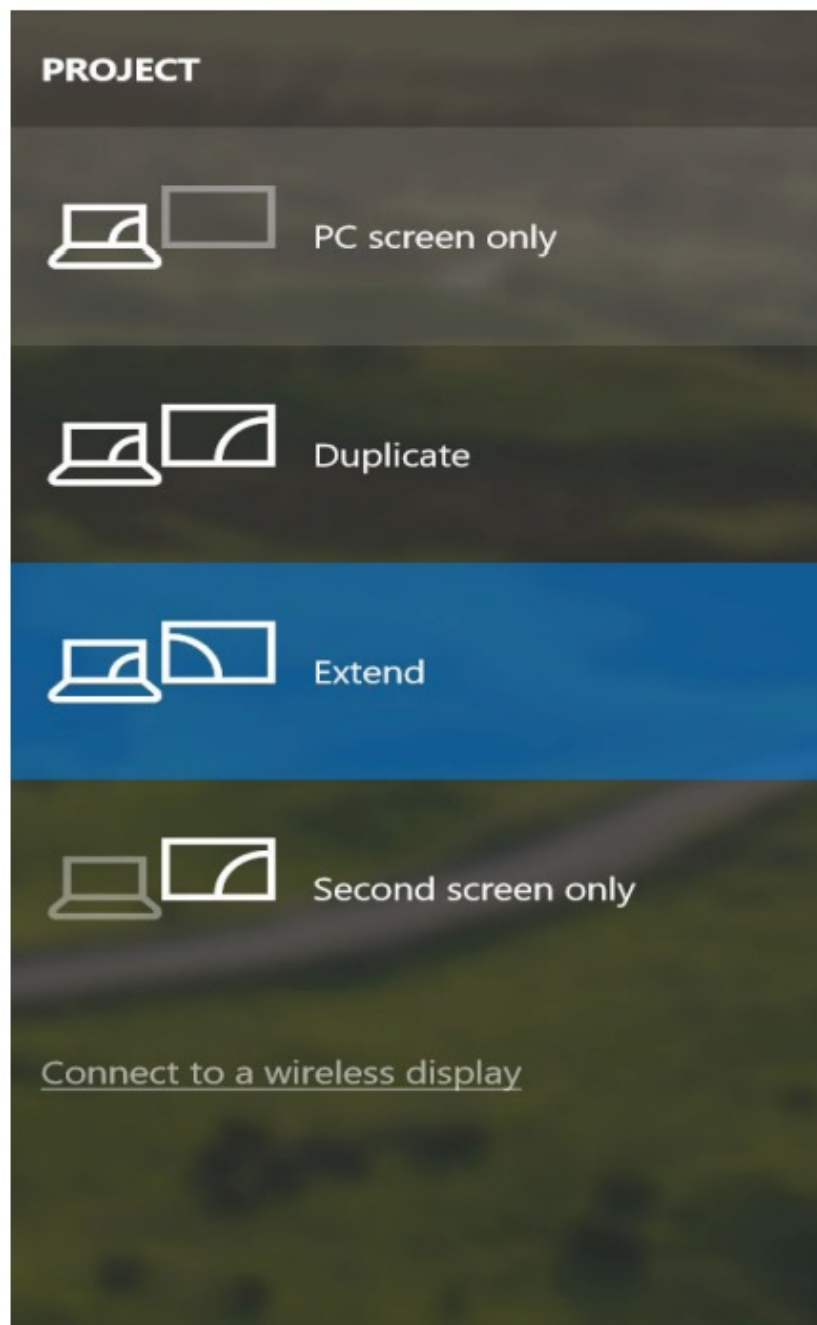


Audio settings

The Standby / Hibernate mode and the Video port – after the activation of the laptop/tablet from the Standby / Hibernate mode the primary (original) monitor is displayed, for this reason, we recommend using the monitor that is integrated with the laptop/tablet as the primary monitor, so that you can log on to the system again.

The Mirror mode – the additional monitor takes on the parameters of the original monitor in the system, i.e., if you select the Mirror mode and the original monitor resolution is e.g. 1280×1024 then the screen will be displayed on the additional monitor with a resolution of max. 1280×1024 (even if you set a higher resolution).

Pressing the keys „Windows“ + P you can also easily control the monitors – for using a monitor in Win 10 you can select: Computer screen only, Mirror, Extend, Second screen only.



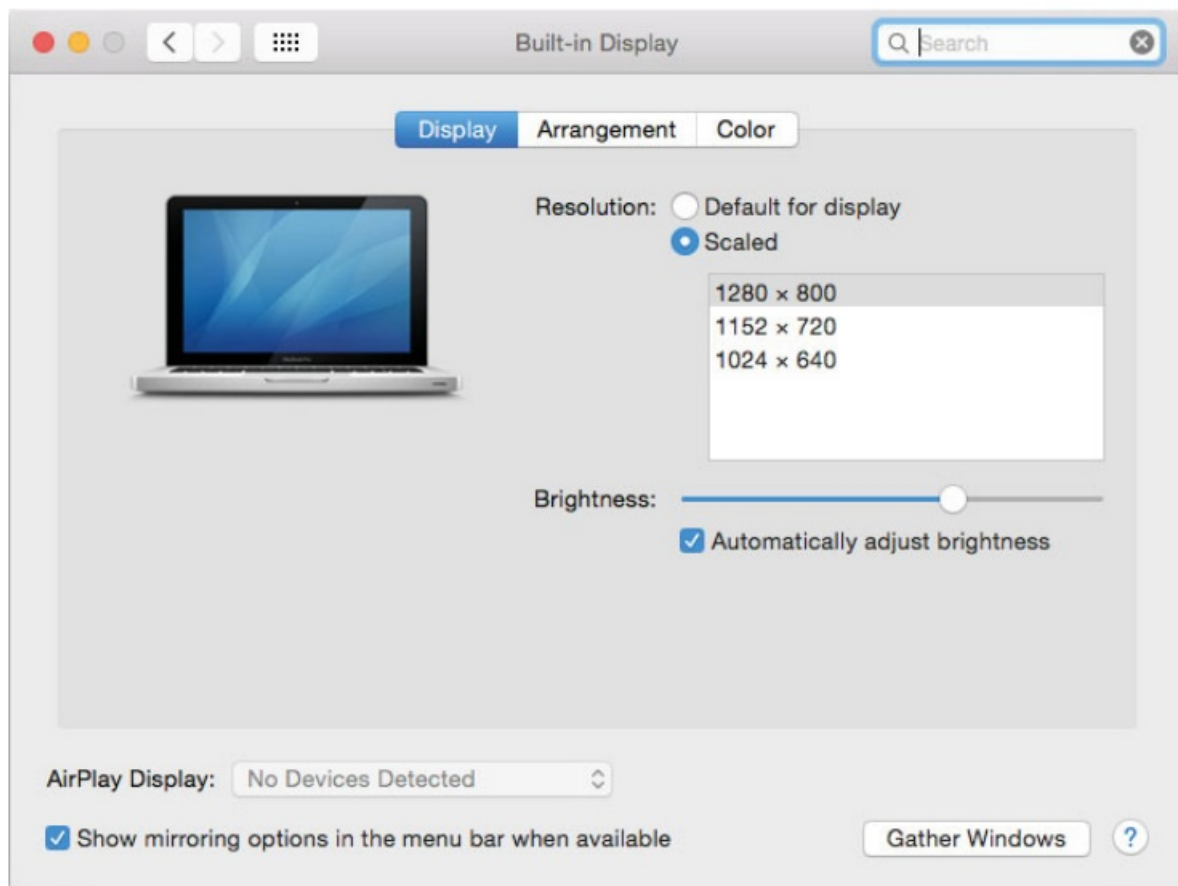
Control the monitor in Windows 10

USING IN MACOS X

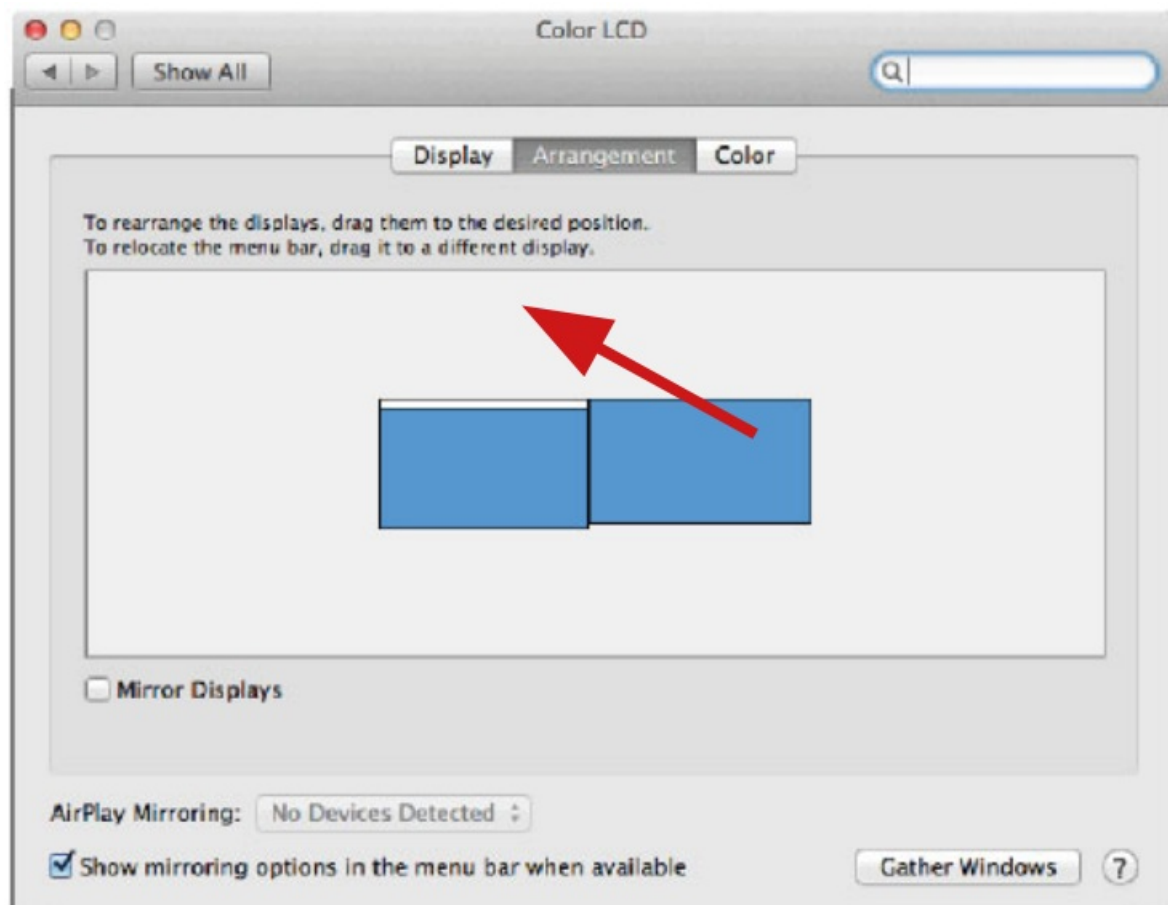
WARNING!

Before installing, make sure you have the latest macOS for your device installed on your Mac. macOS does not support MST technology (2 or more monitors in extended mode). No dock using USB-C DisplayPort Alt Mode supports connecting two or more monitors in macOS, only Thunderbolt 3 docks and DisplayLink docks do.

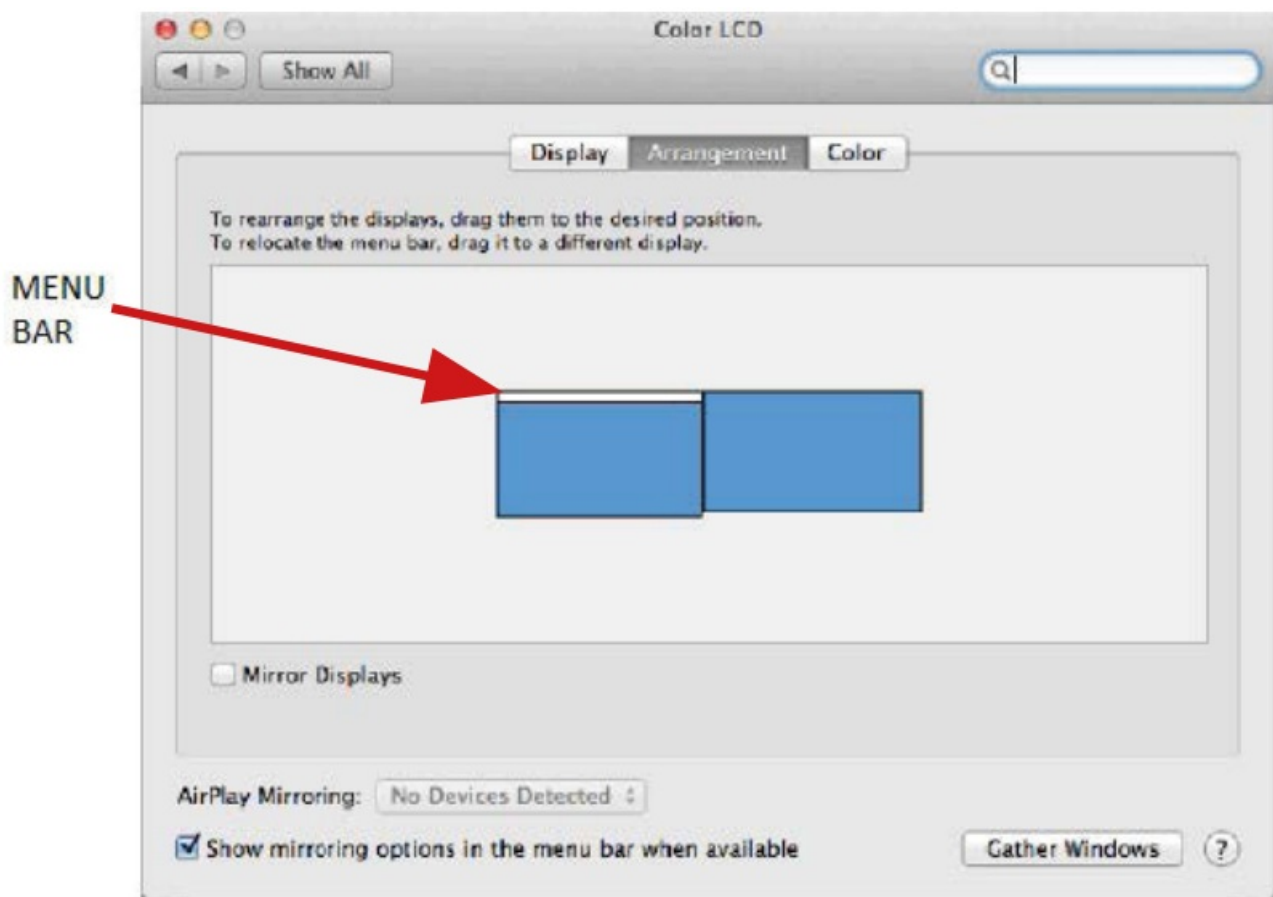
A: After connecting the monitor, the screen on your Mac will glimmer, which is a standard condition, after stabilization, it is possible to perform the standard setting of the monitor here: System Preferences-Displays:



Click on Arrangement and in the default mode (Extended desktop) click on the new monitor and drag it as necessary vis-à-vis the Mac monitor. If you select Mirror displays the mode will change to Mirror (the resolution of the monitors will be automatically adjusted according to their parameters and the highest possible resolution will be set on both monitors). By canceling the Mirror displays option you will return to the Extended desktop mode.

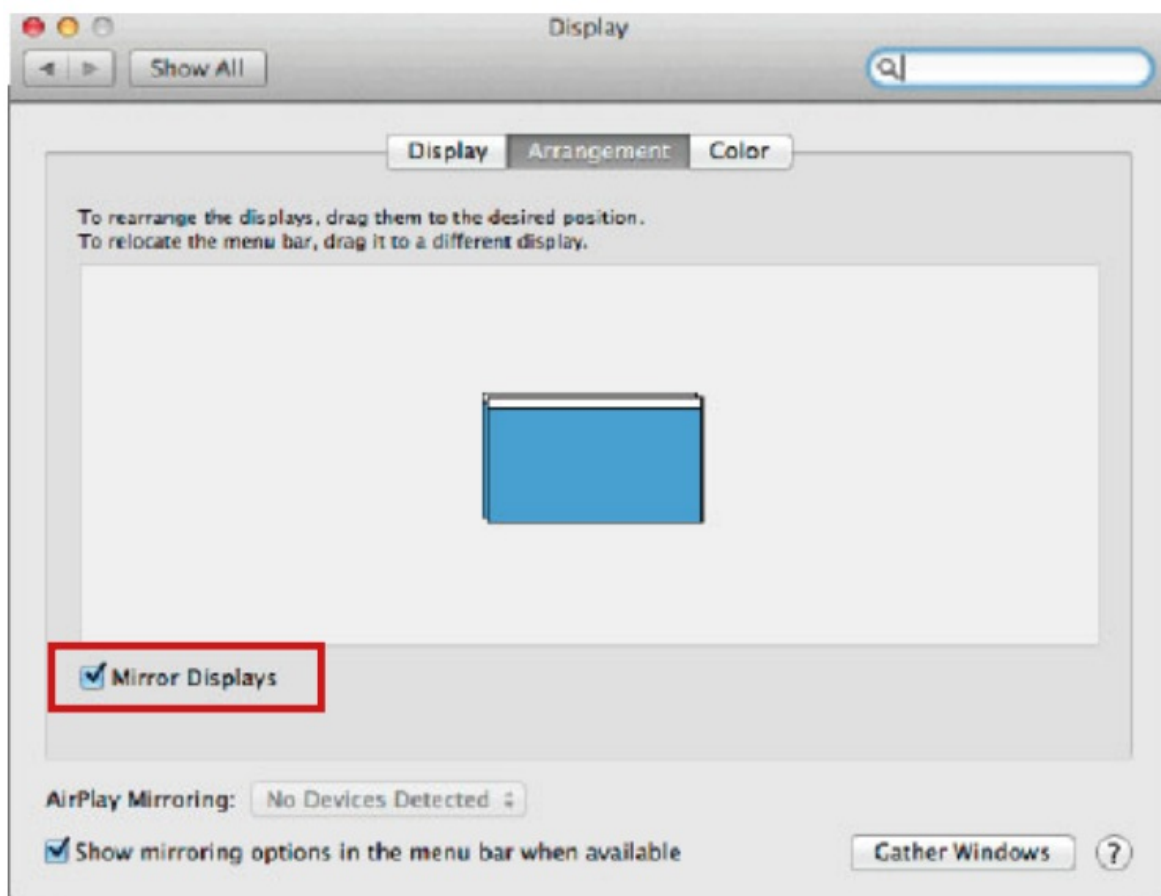


Extended mode: The arrow indicates the possible position of the connected monitor vis-à-vis the Mac monitor.



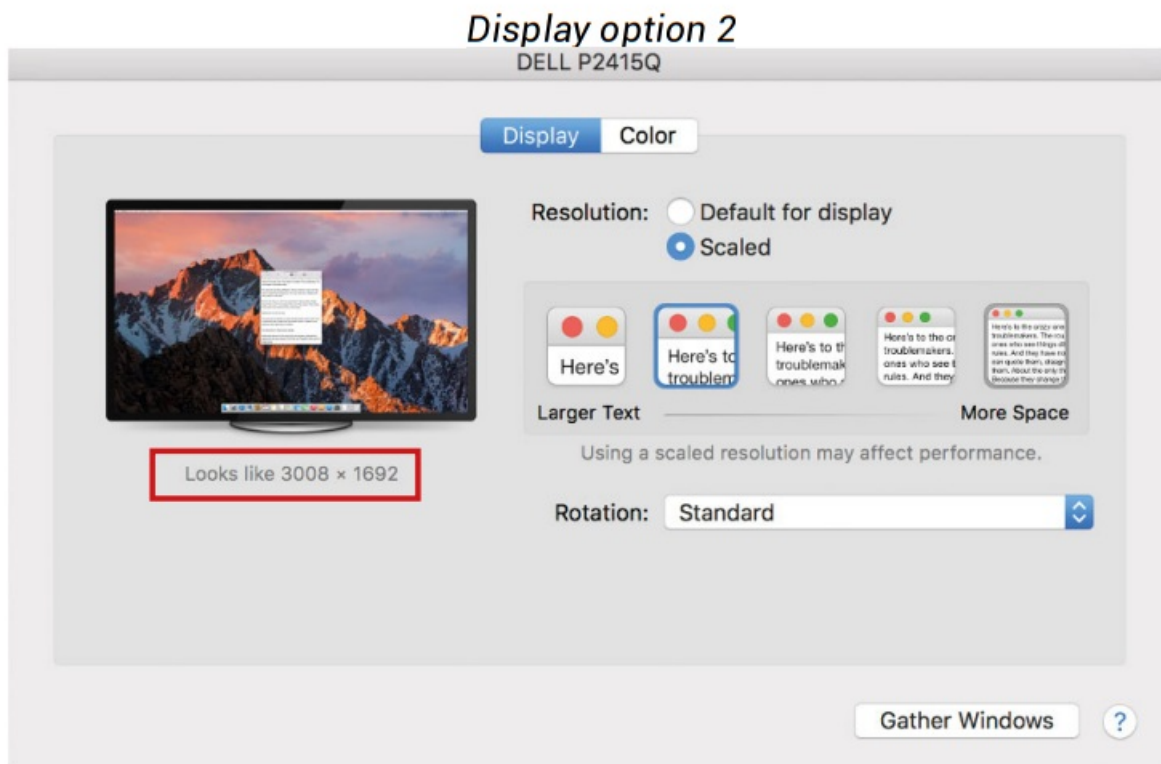
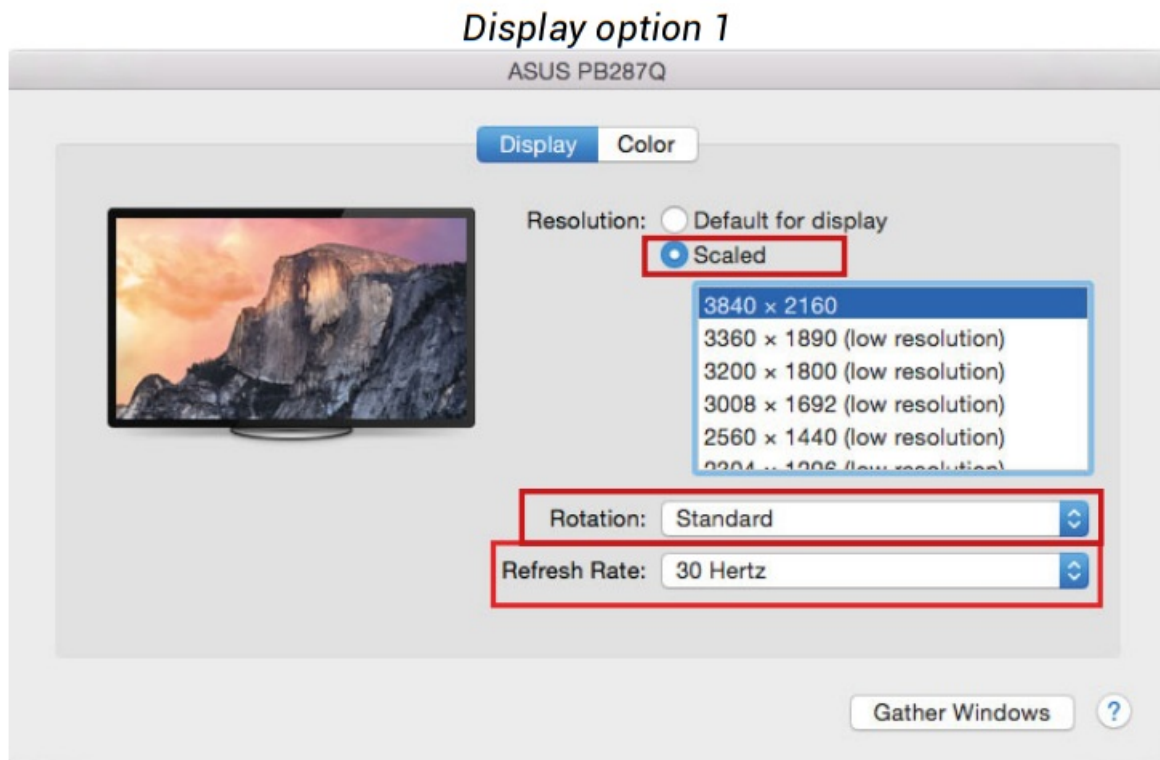
Extended mode: In this mode, you can choose the Main monitor by dragging the Menu Bar.

Mirror mode: This mode can only be used if supported by the Mac.



Click on Gather Windows: using this option you can choose the settings of the corresponding monitor – Scaled (offers available resolutions), Rotation (Standard, 90°, 180° and 270°) and Refresh rate (if offered). Below the

following setting options are displayed. This may vary, depending on your monitor.



In Scaled mode click on the required icon, the resolution is displayed below (which looks like this, 3008×1692 = 4K@30Hz)

Notes on using the docking station with monitors:

Working on a connected monitor while the Mac monitor is tilted is possible with mains power (there is a partial limitation when using an HDMI monitor on older versions of Mac). When battery power is applied, the use of the HDMI monitor is limited by the Mac (in some cases, the procedure in the following section can be used for display problems).

Most of the problems with screen refresh on a connected monitor after putting the Mac to sleep, after using the screensaver, after restarting the Mac, or turning the Mac off/on can be solved by disconnecting the USB-C cable of the dock from the USB-C port of the Mac and reconnecting it after about 10 seconds.

B: After connecting other USB devices to the USB 3.0 port of the docking station (USB external HDD, USB keyboard, USB mouse, USB HUB, USB graphics adapter), these devices are used in the standard way. If the device does not charge or does not work, then connect the original USB-C power adapter to the USB-C port of the docking station to support power.

Most of the problems with the dock and connected peripherals can be solved by disconnecting the dock's USB-C cable from the USB-C port of the PC/Mac/smartphone/tablet and reconnecting it after about 10s.

CHARGE

The docking station supports the charging of connected USB mobile devices such as smartphones, e-book readers, media players, navigation devices, and tablets. Simply connect the device to be charged with the original cable to the USB port of the docking station. If the device does not charge, then connect the original USB-C power adapter to the USB-C Power Delivery port of the docking station to support charging.

AUDIO

The audio output device for listening via HDMI needs to be set/verified here: System Preferences-Sound-Output – Set HDMI Audio Device.

The audio output devices for both headphones and monitor can be selected in Open-Applications-Utilities-Audio MIDI.app – click on “+” at the bottom left

– Create a Multi-Output Device and select the desired outputs from the options on Multi-Output Device.

Most of the problems with the dock and connected peripherals can be solved by disconnecting the USB-C cable of the dock from the USB-C port of the PC/ Mac/smartphone/tablet and reconnecting it after about 10s.

If you have any problems with the USB-C docking station, you can contact our technical support: support@itecproduct.com.

SAFETY INSTRUCTIONS

- Do not expose to extreme temperatures and air humidity.
- Use the device on flat surfaces – you will prevent it from slipping and falling to the ground.
- Save the user manual for possible use later.

In cooperation with the service department:

- Check functionality after falling to water or to the ground.
- Check functionality when the cover is broken.
- Send the device back if it does not work in accordance with the user manual.

FREQUENTLY ASKED QUESTIONS

Available on our website www.i-tec.cz/en/ on the “FAQ” tab of this product.

EMS (For EMC, Für EMC, Pour la CEM, Para EMC, Per la compatibilità elettromagnetica, Pro EMC Skirtas EMC, Voor EMC):

EN 55032:2015/A11:2020

EN 55035:2017/A11:2020

For Electrical Safety

and it is safe under conditions of standard application

RoHS:

2011/65/EU; EU 2015/863

Additional information



Ostrava 01. 02. 2022

Ing. Lumír Kraina
Executive Name and Signature

This equipment has been tested and found to comply with the limits of 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.

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- [!\[\]\(4f36a4ec1451cdf93d7d9ac7b778e19d_img.jpg\) Home | i-tec](#)
- [!\[\]\(37d80f77bb3d0bb15f21b8405e0c33e0_img.jpg\) Inicio | i-tec](#)
- [!\[\]\(4128d06ab9100b2da952248a8fe08b92_img.jpg\) Accueil | i-tec](#)
- [!\[\]\(45745d34d55ef2c5e976faa1432f7966_img.jpg\) Homepage | i-tec](#)
- [!\[\]\(d70002e7a8a7e73312f2ff731c7c88f3_img.jpg\) Home | i-tec](#)
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