

> ViewBoard® Cast Pro

Connect & Collaborate
User Guide



Thank you for choosing ViewSonic®

As a world-leading provider of visual solutions, ViewSonic® is dedicated to exceeding the world's expectations for technological evolution, innovation, and simplicity. At ViewSonic®, we believe that our products have the potential to make a positive impact in the world, and we are confident that the ViewSonic® product you have chosen will serve you well.

Once again, thank you for choosing ViewSonic®!

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> Introduction

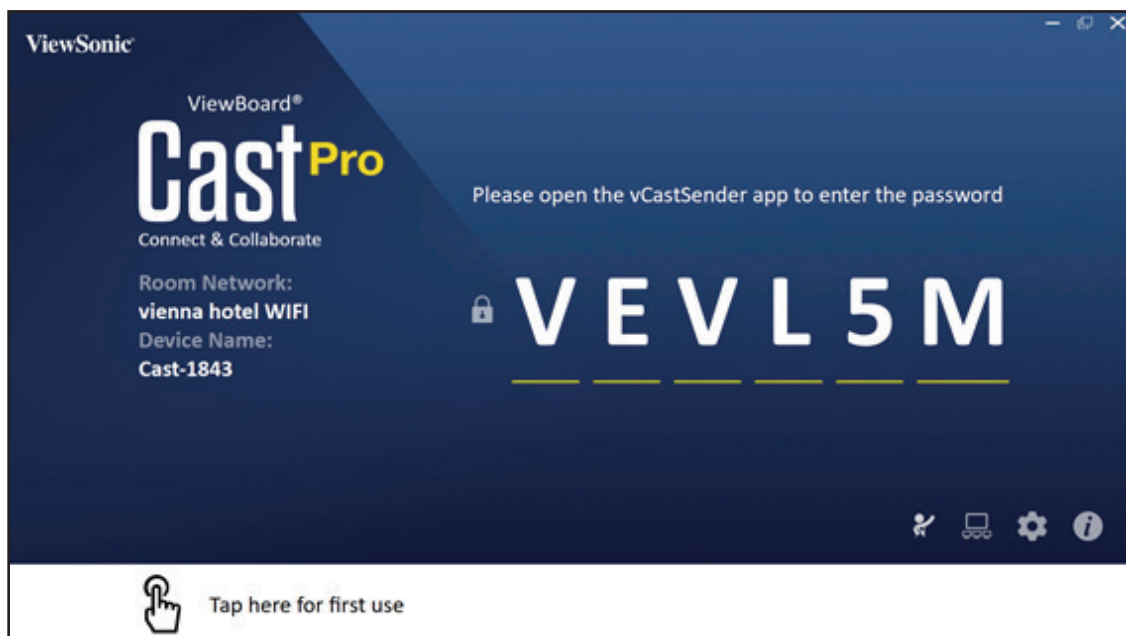
ViewBoard® Cast Pro software is designed for wireless presentations and wireless collaboration.

Working with ViewBoard® Cast Pro software and the vCastSender app allows you to stream live recordings and annotate as well as share your screen, photos, videos, annotations, documents, and camera directly onto ViewSonic® ViewBoard® Interactive Flat Panels and other mobile devices. Additionally, advanced display group and moderator management functions are included.

Presenters can control displayed content from a phone, tablet, or laptop while Android and iOS device users are able to use vCastSender's specialized annotation toolbar and control the ViewBoard® remotely. Whether in class or in a meeting, vCastSender makes teaching and group discussion quick and easy. The specialized moderation feature allows a moderator to take control of meetings or classrooms.

Wireless screen sharing and collaboration in just three easy steps:

1. Connect with ViewBoard® Cast Pro.
2. Download vCastSender app.
3. Open vCastSender to share content.



ViewBoard® Cast Pro has the following features:

| | |
|------------------------------|--|
| Wireless Display | Users can connect to the same network or cross sub-network environments and display their personal screen to a ViewBoard® or display. |
| Multi-split screen display | Multiple users can connect and display concurrently to the ViewBoard® or display. |
| Touch feedback | The current presenter can use touch control on ViewBoard®'s screen to remotely control casting devices. |
| Remote View | Android/iOS users can view the screen of the current presenter on a ViewBoard® or display. |
| Annotation and collaboration | When viewing a presentation, users can annotate on the presenter's display via Android/iOS pen tools. |
| Moderator mode | The moderator has full control of a presentation session and can assign other participants to be the presenter or viewer. The moderator can broadcast a presentation cast to the connected devices to be viewers and make necessary annotations. |
| Display group | One to many casting feature that can reach up to six (6) displays and allow continuous group screen sync up. |

NOTE: The touch feedback function is limited when using Chrome.

> Preparing to launch ViewBoard® Cast Pro

This section covers information you need to know about the ViewBoard® Cast Pro software installed on your Windows PC device.

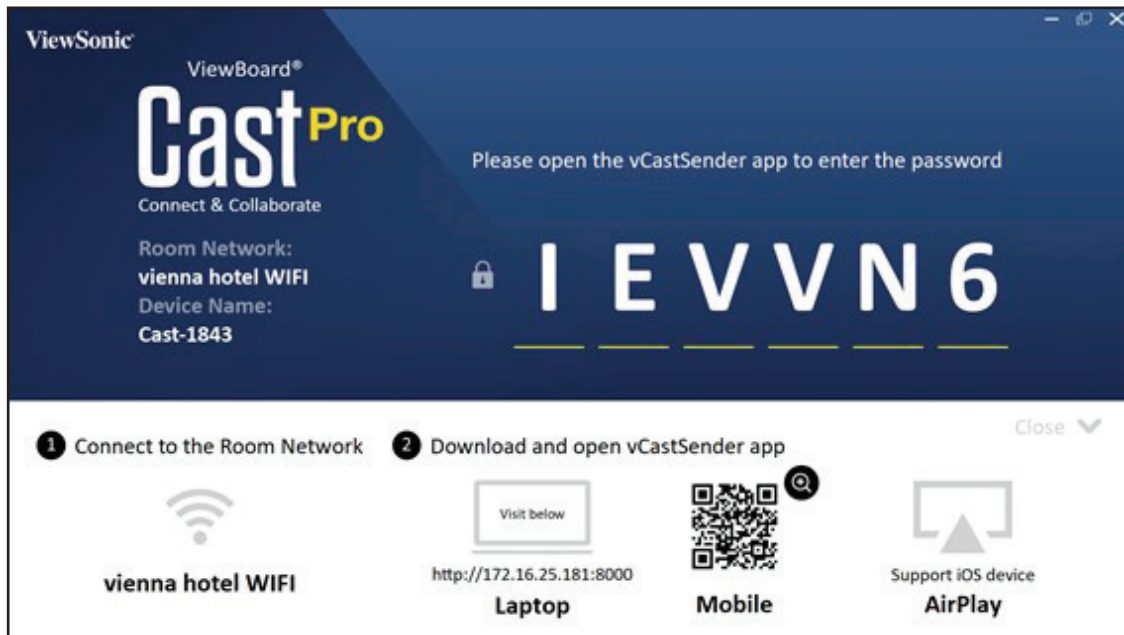
Needed components

- Suggested Windows PC hardware specifications:
 - » Intel i3 series CPU (minimum)
 - » 4GB RAM
- PC Operation system requirements:
 - » Wi-Fi capability – 2.4GHz /5.0GHz
(5.0GHz band will provide better wireless screen sharing performance.)
 - » Microsoft® Windows* 7, 8, 8.1, 10

> Launching ViewBoard® Cast Pro

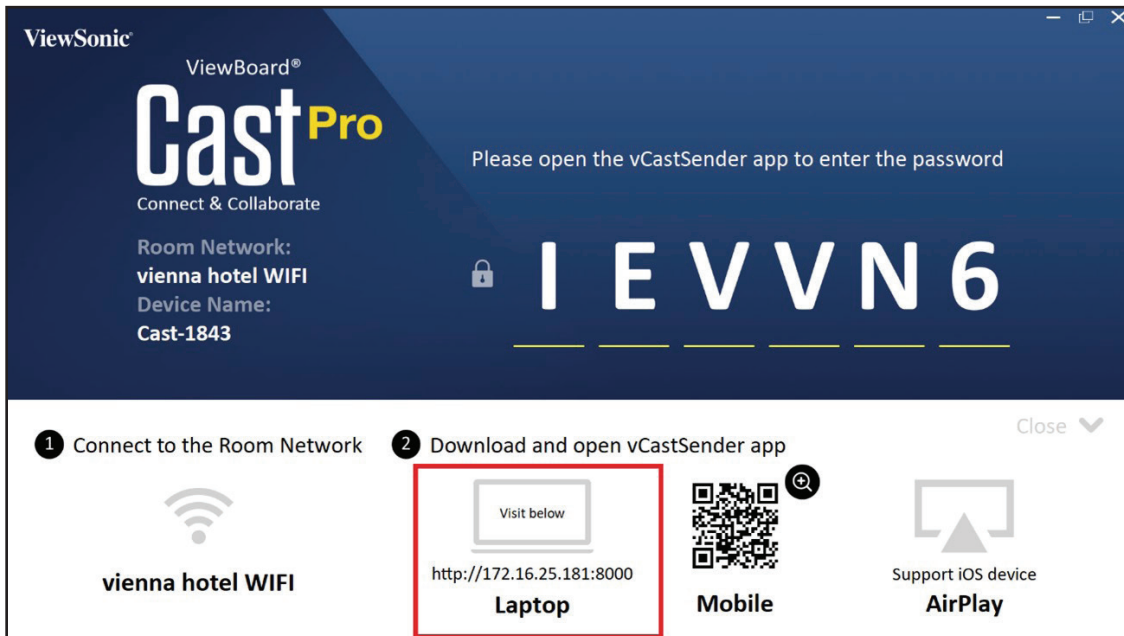
Follow the download link provided on the ViewBoard or display.

1. Connect to the room Network (i.e. “http://your company URL here”)
2. Download and open the Application
3. Launch vCastSender and enter the six (6) digit connecting PIN-code.



Starting ViewBoard® Cast Pro on a client device

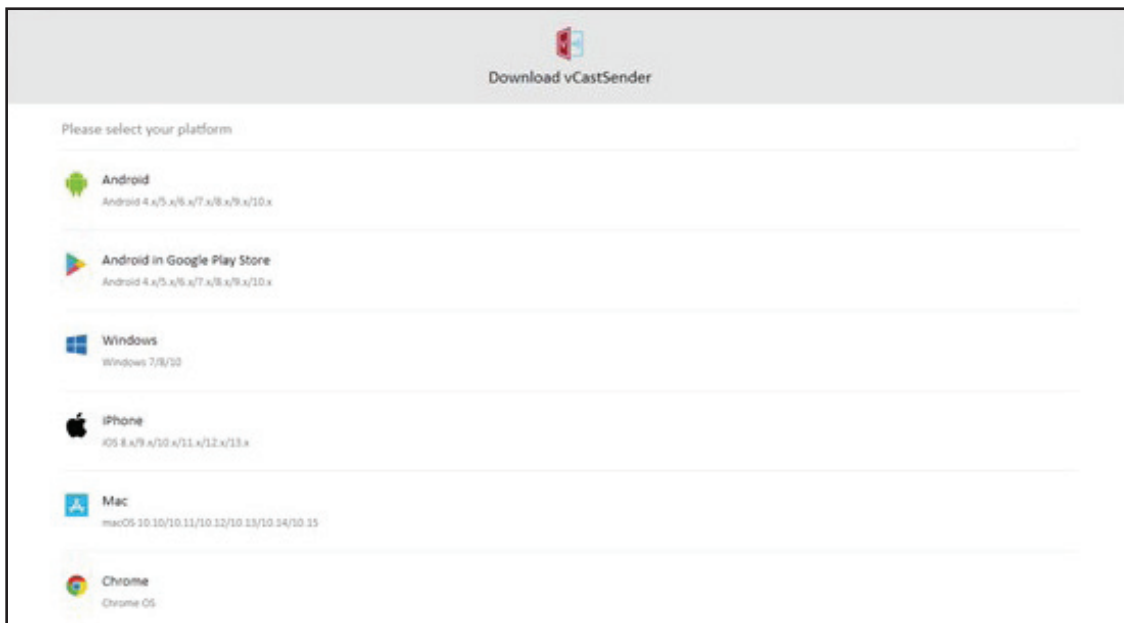
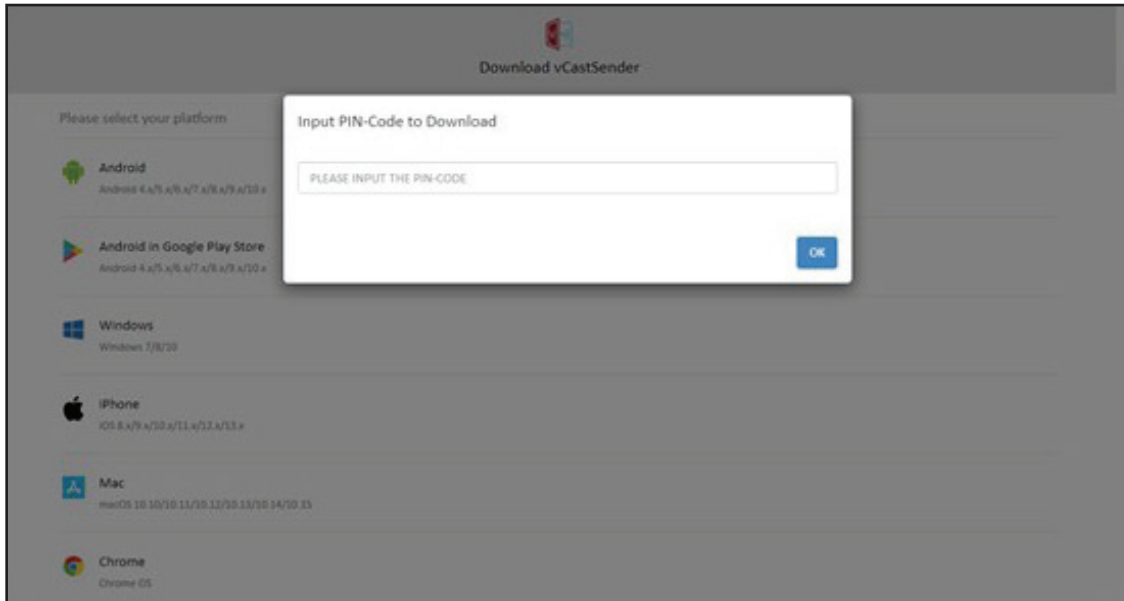
1. To start ViewBoard® Cast Pro, first search for the vCastSender application and ensure the client device is connected to the same ViewBoard® Cast room network server.



2. PC client devices (Windows/Mac/Chrome) should visit the address displayed in a browser; phone/tablet devices (Android/iOS) should use the QR code to scan and download the app directly from the server or from Google Play Store for Android devices, Apple Store for iOS devices, or Chrome Web Store for Chromebook devices.



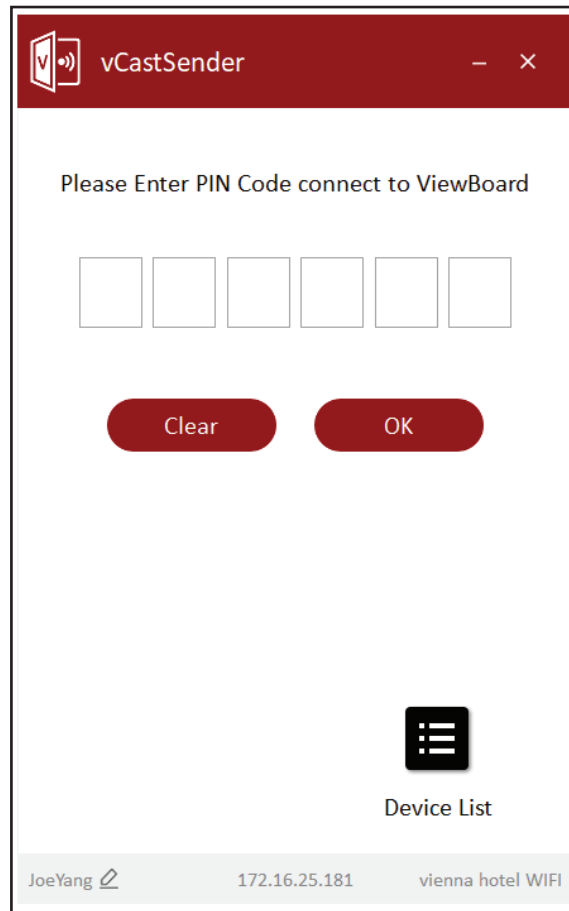
3. Input the displayed PIN-code to download and install the app.



4. Once the client device has installed vCastSender the app can be launched.

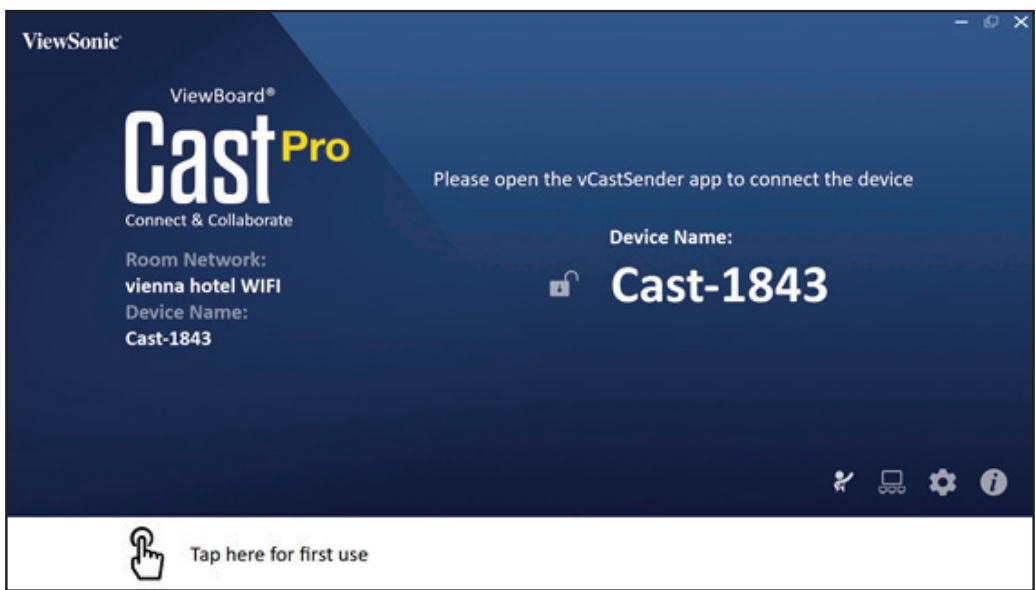
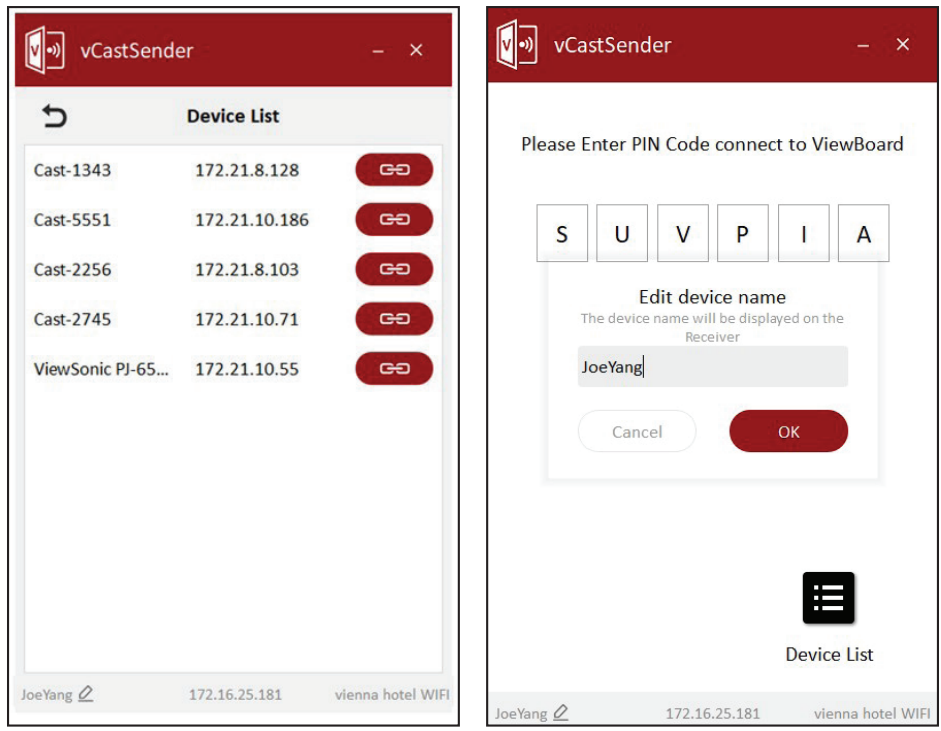


5. Enter the six (6) digit PIN-code to wirelessly display content onto the ViewBoard®.



Network information

- ViewBoard® Cast Pro software, laptops, and mobile devices can connect to both the same subnet and the cross subnet network by entering the PIN-code to connect to the ViewBoard.
- Connected devices will show up under “Device List” on the same subnet connection.
- ViewBoard® Cast Pro can setup “PIN disable” for easy connection on the same subnet network, please note the remote viewing function will be enabled if PIN is disabled.
- vCastSender allows the customization of the device’s display name on ViewBoard Cast Pro.



> ViewBoard® Cast User Features

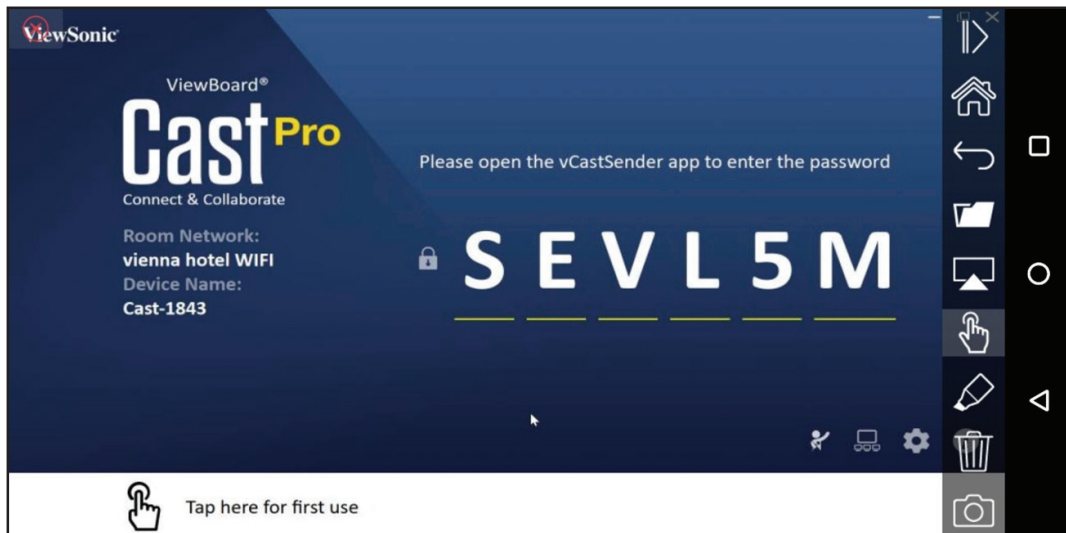
This section describes the ViewBoard® Cast Pro – vCastSender application features you can use while connected to ViewBoard® Cast Pro or a display.

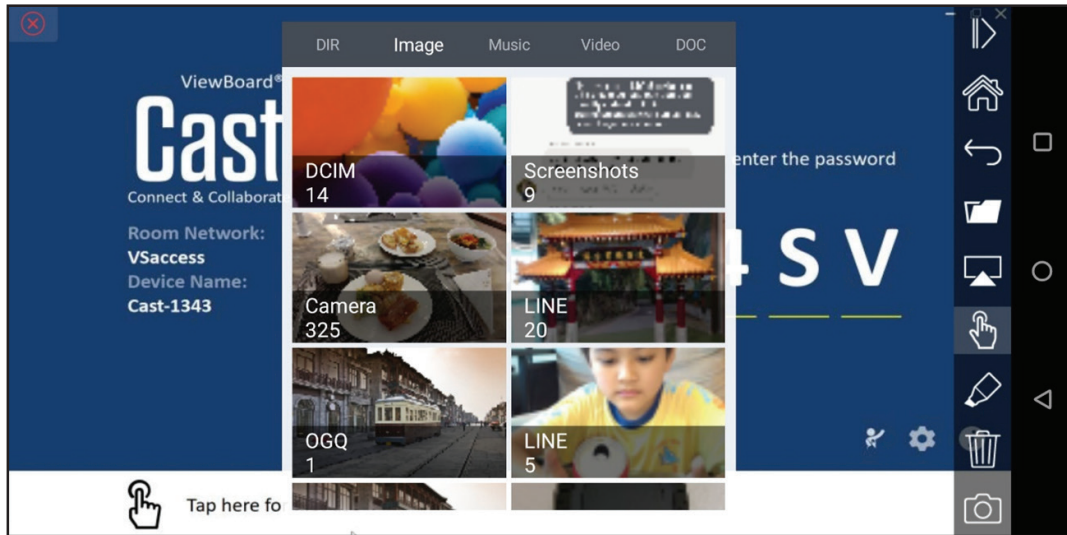
Connecting to a ViewBoard® or display from PC

Once connected, the vCastSender app for Windows, Mac and Chrome can wirelessly share your screen and use ViewBoard® touch control back to your PC remotely.

Connecting to a ViewBoard® or display from mobile phone

Once connected, the ViewBoard® or selected display screen will appear on your phone.

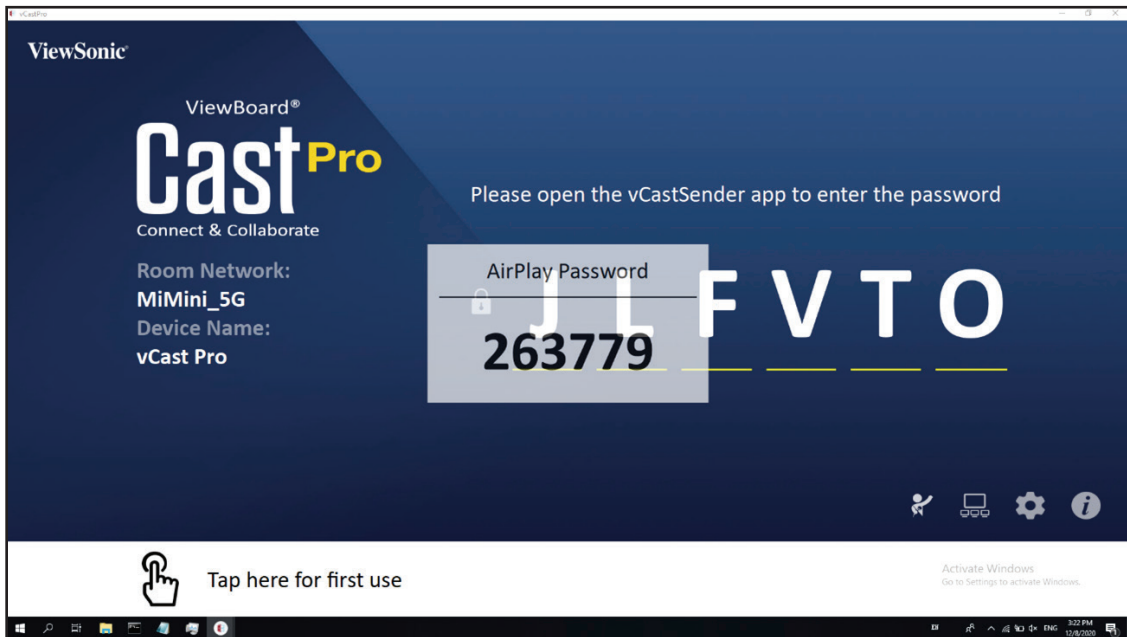




| Item | Description |
|------------|---|
| Toggle | Click to hide or display the tool bar. |
| Home | Go to the Windows home page. |
| Return | Return to the previous operation interface. |
| Folder | View or open mobile device files including images, music, video and documents. |
| Share | Share your screen onto the connected ViewBoard® or display. |
| Touch | Touch to remotely control the ViewBoard® or display. |
| Annotation | Annotation is used to quickly highlight and point out specific items or sections on a displayed screen. You can switch between pen colors by selecting your preferred color. |
| Clear | Click to clear everything on the screen. |
| Camera | Can be used to send camera images to the ViewBoard® or display. |

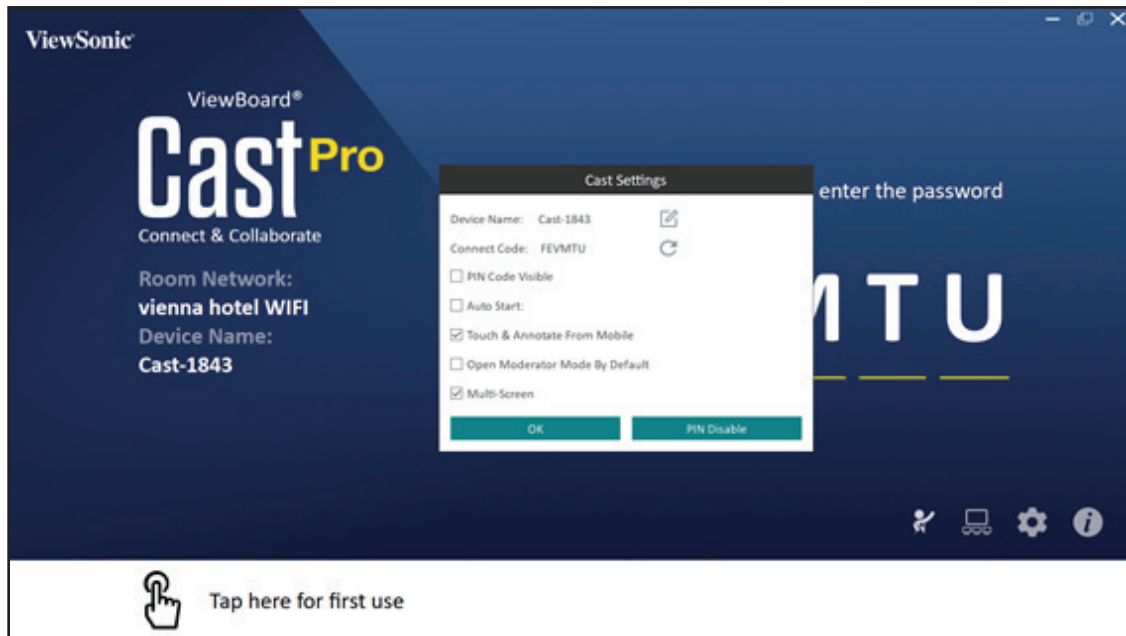
Casting to ViewBoard® with Apple AirPlay

Apple AirPlay® is compatible with ViewBoard® Cast for screen mirroring and content streaming under the same subnet environment only. Another “AirPlay Password” number will be generated on-screen for connection when using AirPlay to cast to the ViewBoard®. If you are in a cross subnet environment, please connect with vCastSender iOS first.





> ViewBoard® Cast Pro setting

ViewBoard® Cast Pro allows you to adjust advanced Cast Settings by clicking the Settings icon located in the bottom right corner of the screen.



Cast Settings

Device Name: Cast-1843 

Connect Code: FEVMTU 

PIN Code Visible

Auto Start:

Touch & Annotate From Mobile

Open Moderator Mode By Default

Multi-Screen

OK

PIN Disable


| | |
|--------------------------------|--|
| Device name | Allows users to set their preferred device name so it is easy to identify. |
| Connect Code | Click the refresh icon to generate a new random code. |
| PIN Code Visible | Toggle between showing the ViewBoard® Cast connection PIN-code in the upper right side of the windows screen for easy log-in or hide it. |
| Auto Start | ViewBoard® Cast Pro will start automatically when you start your Windows PC. |
| Touch & Annotate From Mobile | Enable/disable the touch and annotate functions for mobile devices for easier screen management. |
| Open Moderator Mode by Default | Allows users to have moderator mode open by default. |
| Multi-Screen | Multiple users can wirelessly present to ViewBoard® Cast simultaneously. |
| PIN disable | Simplify connection on the same subnet network, please note the remote viewing function will be enabled if PIN is disabled. |

NOTE:

- The current presenter can touch each split ViewBoard® screen to remotely control casting devices.
- The number of multi-screen presenters on-screen depends on your Windows CPU processor performance and router specs.

> Display Group settings for one to many casting

Display Group settings

1. Click the Display Group Settings icon () on the home screen and turn on the display group feature. Other preinstalled ViewBoard Cast devices in the same network will be listed.

2. Next, select the devices you want to join in the display group and click “OK” to save the settings.

NOTE: If the devices you wish to group are not listed, you can enter their respective IP address or connecting PIN code.

3. Toggle the advanced feature, “Synchronized group screen all the time”, On or Off. If On, it will display a synchronized group screen continuously. If you toggle it Off, it will work on ViewBoard Cast mirroring only.

NOTE:

- The Display Group limit is a maximum of 6 devices.
- Please select the correct devices to group first, then turn on the “Synchronized group screen all the time” function to avoid interruption.


Display Group Settings

Turn On/Off Display Group

Synchronized group screen all the time
If you turn-off the toggle will work on ViewBoard Cast mirroring only.

Device List

| | | |
|-------------------------------------|-------------------|---------------|
| <input checked="" type="checkbox"/> | Cast-3598 | 172.21.8.130 |
| <input checked="" type="checkbox"/> | ViewSonic PJ-3423 | 172.21.9.209 |
| <input checked="" type="checkbox"/> | Cast-8353 | 172.21.10.62 |
| <input checked="" type="checkbox"/> | ViewSonic PJ-6624 | 172.21.10.103 |
| <input type="checkbox"/> | Cast-3832 | 172.21.9.222 |


Enter IP address or PIN code to add devices 

Share a screen to the grouped display (one to many casting)

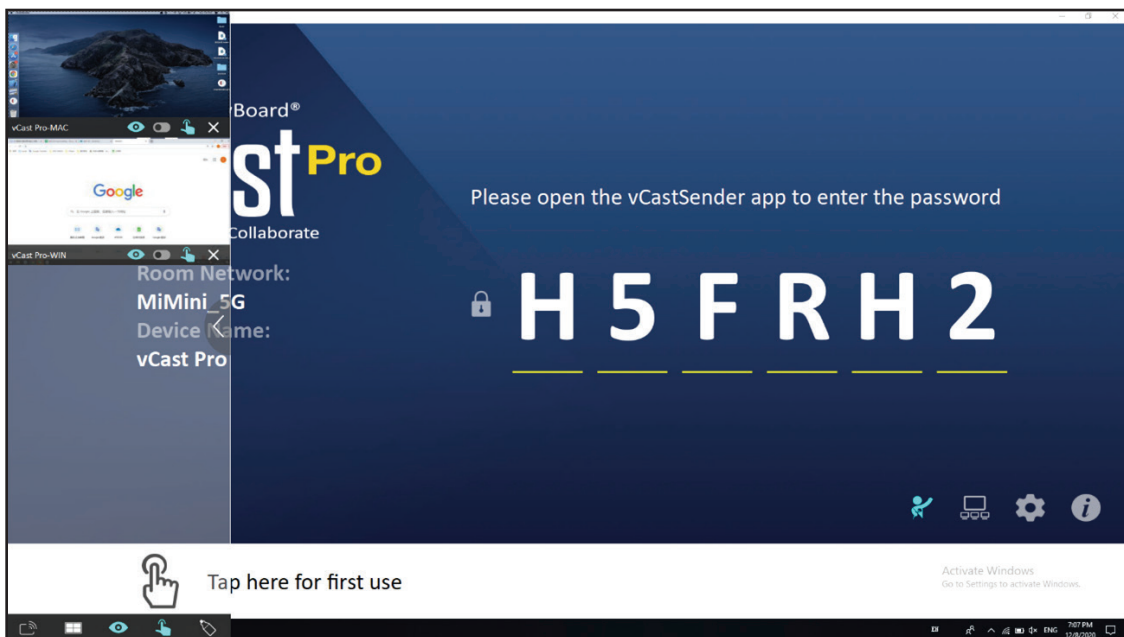
After confirming the above settings, you can share your screen to the main display, then the grouped client devices will be synced up to your screen.



> Moderator mode

Click the Moderator icon  on-screen to enter ViewBoard® Cast Pro Moderator mode, the feature allows the Moderator to take control of the connected devices of meetings or a classroom.

The Moderator can view a list of all connected screens in the left floating window and can preview each participant's screen and then select any of participant's screen and cast to the ViewBoard's main screen for presentation. The Moderator is allowed to control each participant's screen, annotate on the ViewBoard, and can remove unwanted participants from ViewBoard Cast Pro by clicking the exit button.



Multiple screen selection  → 

ViewBoard Cast Pro is by default set to allow multiple screen sharing, but can also be set to single screen sharing. To do this, the Moderator can click the multiple screen button to switch to the single screen option.

Click on **Broadcast**.   

When Broadcast is enabled, you will see the ViewBoard's screen broadcasted out to all participant's connected screens simultaneously. The participants can only view the presentation contents until the moderator turns off the Broadcast function.



Click on **Annotation**.   

Click on the pen button for more Annotation options:

- Presenter can move the annotate tool bar on screen.
- Choose marker colors for annotations.
- Clear your annotations.
- Save screen annotations to .png format file.

Preview screen selection   

ViewBoard Cast Pro by default is set to let the Moderator preview the participant's screen contents prior sharing to the panel. Clicking on the preview button, the Moderator can switch to see the participant's name only.

Touch/annotate option



By default, participants can touch/annotate for collaboration after connection. The Moderator is able to click on the control touch/annotate function, and enable/limit the touch/annotate function of a participant by clicking on their touch/annotate button.

- **Moderator:** The moderator has full control of meetings or classrooms and are able to preview images and screens shared to the ViewBoard® by a presenter.
- **Broadcast and annotate:** Moderators can broadcast main screen content to participants on Windows/Mac/Chrome devices and do annotation.
- **Presenter:** Presenters can present, review, annotate and close connected devices.
- **Viewer:** After the moderator has enabled the broadcast function, all the participants' panels will be able to view the meeting or classroom content.

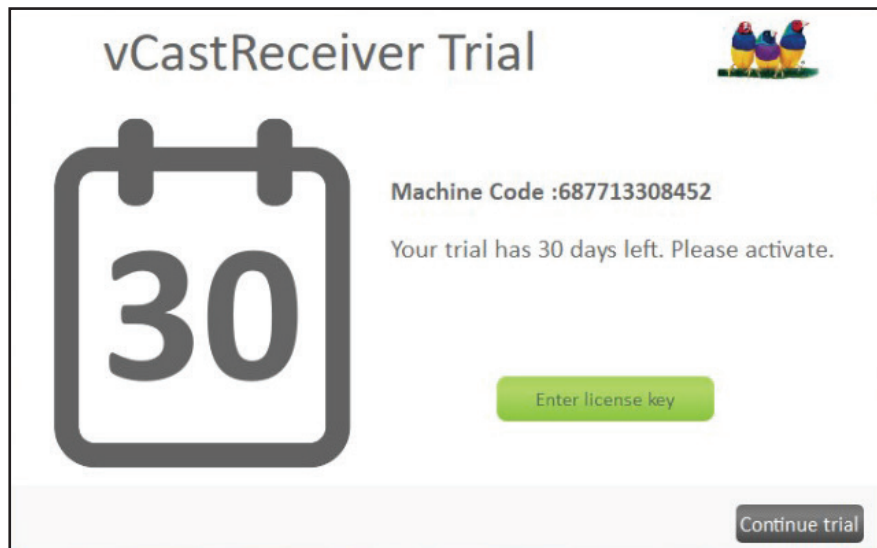
NOTE:

- Moderator mode can be supported on all vCastSender and AirPlay devices, but mobile devices are limited to preview function.
- 2. When you cast your Windows/Mac/Chrome screen to a ViewBoard®, the selected full screen unit will not be broadcasted back to your device to avoid re-cycled screen casting.
- 3. Android mobile is limited to only a “preview” function and cannot cast sound out.

> ViewBoard® Cast Activation

When using a trial version of ViewBoard® Cast software, a window indicating the number of days left in your trial will be displayed. To continue using the software after the trial period you must activate the software.

Please contact ViewSonic to purchase a license activation key.



> Troubleshooting

ViewBoard® Cast is designed to be easy to use, please contact your sales representative or IT department if you are experiencing any problems. Below are some issues that you may experience.

Device List is Not Displayed

Please make sure you have followed all instructions for connecting to the same network segment environment carefully.

Unable to Connect to ViewBoard® Cast Download Page

Ensure that the firewall for your operating system permits ViewBoard® Cast to run and communicate on your network.

This message will only appear if the server is using a self-signed certificate with an invalid trust chain.

Network requirement

ViewBoard® and mobile devices need to link to the same room LAN network subnet when the PIN-Code is disabled. ViewBoard® Cast supports cross sub-network connectivity via PIN-Code.

For the most stable transmission, having ViewBoard® connected via Ethernet cable and having client devices working on a 5GHz Wi-Fi band is recommended.

Ports

TCP 56789, 25123, 8121 & 8000

UDP 48689, 25123

Port and DNS for activation and OTA:

- Port and DNS for activation:

Port: 443

DNS: <https://vcastactivate.viewsonic.com>

- OTA service:

Server Port: TCP443

Server FQDN Name: <https://vcastupdate.viewsonic.com>

Airplay service

Please ensure that DNS is enabled on the network/access point/wireless controller (where applicable).

Ports:

TCP 51040, 51030, 51020 & 51010

UDP 5353 (mDNS to broadcast Airplay)

How to confirm that Airplay service is broadcasting:

1. Ensure that your iOS device and ViewBoard® are connected to the same sub-network.
2. Open Control Center and select Airplay Mirroring On for iOS devices (e.g. iPhone/iPad).
3. You will see a device with the " Cast-" prefix being shown.
4. If "Cast-" is showing, this confirms that the vCastReceiver is broadcasting Airplay services.
5. Click on the broadcasted " Cast-" device to mirror your iOS device to the ViewBoard®.

What is the minimum Wi-Fi signal strength for a reliable ViewBoard Cast Pro network?

In order to have reliable network signal strength to experience ViewBoard Cast optimally, we suggest the minimum Wi-Fi signal strength for reliable packet delivery to not be lower than -60dBm.

| Signal Strength | Expected Quality | Required For |
|-----------------|--|--|
| -30 dBm | Maximum signal strength, you are probably standing right next to the access point. | |
| -50 dBm | Anything down to this level can be considered excellent signal strength. | |
| -60 dBm | Good, reliable signal strength. | |
| -67 dBm | Reliable signal strength. | The minimum for any service depending on a reliable connection and signal strength, such as voice over Wi-Fi and non-HD video streaming. |
| -70 dBm | Not a strong signal. | Light browsing and email. |
| -80 dBm | Unreliable signal strength, will not suffice for most services. | Connecting to the network. |
| -90 dBm | The chances of even connecting are very low at this level. | |

What is minimum video streaming network bandwidth recommended for reliable ViewBoard Cast Pro casting?

Minimum Bandwidth recommendation: 1 MB/s

(Still picture < 100KB/s, Peak value of a dynamic picture is about 1 MB/s)

Network packet loss rate: 5%

Network latency:

1~30ms: very fast, smooth screen casting.

31~50ms: Good, can screen cast normally, no obvious delay.

51~100ms: Normal, slight latency may occur when the video/pictures are streaming drastically.

>=100ms: Poor, there may be a freeze, and in serious cases, there may be a drop.

Can multiple screen casting possibly face latency issues, especially with video streaming content sharing?

Multiple screen casting via video streaming can be a heavy load on a network.

To experience ViewBoard Cast with multiple screen sharing with a reliable signal, we suggest the minimum Wi-Fi signal strength is not lower than -60dBm and the minimum bandwidth recommendation is 1 MB/s (Still picture < 100KB/s, Peak value of a dynamic picture is about 1 MB/s).

If there is still a latency issue, please reduce vCastSender to not exceed two (2) devices for the best performance.

> Other Information

Customer Support

For technical support or product service, see the table below or contact your reseller.

NOTE: You will need to provide the product serial number.

| Country/ Region | Website | Country/ Region | Website |
|----------------------------------|--|--------------------------|--|
| Asia Pacific & Africa | | | |
| Australia | www.viewsonic.com/au/ | Bangladesh | www.viewsonic.com/bd/ |
| 中国 (China) | www.viewsonic.com.cn | 香港 (繁體中文) | www.viewsonic.com/hk/ |
| Hong Kong (English) | www.viewsonic.com/hk-en/ | India | www.viewsonic.com/in/ |
| Indonesia | www.viewsonic.com/id/ | Israel | www.viewsonic.com/il/ |
| 日本 (Japan) | www.viewsonic.com/jp/ | Korea | www.viewsonic.com/kr/ |
| Malaysia | www.viewsonic.com/my/ | Middle East | www.viewsonic.com/me/ |
| Myanmar | www.viewsonic.com/mm/ | Nepal | www.viewsonic.com/np/ |
| New Zealand | www.viewsonic.com/nz/ | Pakistan | www.viewsonic.com/pk/ |
| Philippines | www.viewsonic.com/ph/ | Singapore | www.viewsonic.com/sg/ |
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| Việt Nam | www.viewsonic.com/vn/ | South Africa & Mauritius | www.viewsonic.com/za/ |
| Americas | | | |
| United States | www.viewsonic.com/us | Canada | www.viewsonic.com/us |
| Latin America | www.viewsonic.com/la | | |
| Europe | | | |
| Europe | www.viewsonic.com/eu/ | France | www.viewsonic.com/fr/ |
| Deutschland | www.viewsonic.com/de/ | Қазақстан | www.viewsonic.com/kz/ |
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