PANIO Enterprise Product User Manual

CQ1700W

4K60 Professional Wireless Conference Integration Switcher

User Manual | Version: V1.5

Professional 4K60 AV switching, USB 3.0 peripheral sharing and wireless presentation for conference rooms, classrooms and integrated AV systems.

Model Number	CQ1700W
Product Positioning	4-input HDMI / USB-C / wireless video and USB switching system
Key Features	4K@60 Hz 4:4:4, 18 Gbps, 60 W USB-C PD, USB 3.0 follow switching, IR / RS-232 / LAN and wireless casting



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1. Safety Reminders

Thank you for choosing the PANIO CQ1700W HDMI (USB) + Type-C + Wireless-to-HDMI (USB) Multi-Function Switcher. Read the instructions before installing, connecting or operating the system.

Safety Instructions

- Use a properly grounded AC 100–240 V, 50/60 Hz outlet with the supplied DC 24 V / 3 A power supply. Do not damage the power cord or the protective earth connection.
- Disconnect the power supply and turn off connected devices before moving the switcher, changing system wiring or cleaning the equipment.
- Do not step on, sharply bend, crush or place heavy objects on power, HDMI, USB, Ethernet or control cables.
- Provide adequate ventilation. Do not install in a sealed, humid, dusty, corrosive, overheated or unstable location.
- Protect the unit from dripping or splashing liquids. Never place containers of liquids on or immediately next to the switcher.
- Use the specified power adapter and check that external devices are compatible with the rated USB and USB-C interfaces.
- Only qualified service personnel should open, repair, update or modify internal equipment. Do not disassemble the chassis yourself.
- Turn off the main power switch when the product will remain unused for an extended period. Dispose of electronic equipment in accordance with local regulations.

2. Product Introduction

PANIO CQ1700W is a professional 4K@60 Hz HDMI, USB-C and wireless presentation switcher combining video selection and USB peripheral sharing. Four video sources are supported: 2 × HDMI, 1 × USB-C (Type-C) and 1 × wireless screen mirroring input. The selected source is delivered to 1 × HDMI output, with synchronized USB 3.0 signal switching and an audio de-embedding output.

For wired PC connections, the rear panel provides two USB 3.0-B upstream ports associated with HDMI IN1 and HDMI IN2. Four USB 3.0-A downstream ports allow cameras, conferencing peripherals and other USB equipment to follow the currently selected computer connection. The Type-C interface supports power delivery up to 60 W. Wireless casting is supported through QuickShare, AirPlay and Miracast-compatible workflows.

Local pushbuttons, an IR remote control and an RS-232 interface provide source selection. Manual and automatic operation modes simplify presentations in meeting rooms, classrooms, exhibition spaces and other professional AV installations. The LAN interface provides network connectivity for wireless presentation and device administration.

3. Key Features

- Up to 3840 × 2160 at 60 Hz with 4:4:4 chroma sampling; backward-compatible lower video resolutions.

- Four selectable presentation sources: Wireless, HDMI IN1, HDMI IN2 and USB-C (Type-C).
- HDMI 1.4b / 2.0b, HDCP 1.4 / 2.2 / 2.3, EDID and HDR support.
- HDMI signaling bandwidth up to 18 Gbps.
- Two USB 3.0 upstream PC interfaces and four USB 3.0 downstream outputs, with USB devices following the chosen video source.
- USB-C power delivery up to 60 W for a connected compatible host.
- Wireless screen mirroring support for appropriate Windows, macOS, iOS and Android devices.
- Automatic or manual input selection by front-panel controls; infrared remote and RS-232 control are also provided.
- Phoenix-style balanced audio terminal for extracted audio output.
- Front-panel status LEDs for active input, output, power and AUTO/MANUAL mode.
- Web browser configuration of wireless parameters, display options and mirroring behavior.
- USB drive media playback and supported wireless firmware upgrade functions.

4. Technical Specifications

4.1 Video & Signal Interfaces

Item	Specification
Model	CQ1700W
System Type	HDMI (USB) + Type-C + Wireless-to-HDMI (USB) multi-function switcher
Video Inputs	2 × HDMI, 1 × USB-C (Type-C), 1 × wireless mirroring
USB Host Inputs	2 × USB 3.0-B (associated with HDMI IN1 / IN2)
Other Connections	1 × RS-232, 1 × LAN, 3 × USB 2.0 / device-maintenance interfaces
Video Output	1 × HDMI
USB Device Outputs	4 × USB 3.0-A
Audio Output	1 × Phoenix-style audio terminal
HDMI / HDCP	HDMI 1.4b / 2.0b; HDCP 1.4 / 2.2 / 2.3; EDID; HDR
Maximum Resolution	4K@60 Hz 4:4:4 (3840 × 2160); lower resolutions supported
HDMI Bandwidth	Up to 18 Gbps
USB Switching	USB peripheral routing follows selected video source

4.2 Control, Power & Environmental Specifications

Item	Specification
Control Interfaces	Front-panel buttons, IR remote control, RS-232 serial connection
Operating Modes	Manual input selection / automatic source selection
USB-C Power Delivery	Up to 60 W (compatible Type-C host required)
Power Adapter	AC 100–240 V, 50/60 Hz input; DC 24 V, 3 A output

Item	Specification
Maximum Rated Power	72 W (rated)
Product Dimensions	267.5 (W) × 103 (D) × 27 (H) mm
Net Weight	0.98 kg
Packaged Weight	1.72 kg
Operating Temperature	0–50 °C
Storage Temperature	0–50 °C
Operating Humidity	10–90% RH

Installation note: The tabulated dimensions and illustrated references may describe different enclosure revisions. Confirm final chassis dimensions before fabricating mounting hardware.

5. Package Contents

Inspect the carton and verify that all items are undamaged before installation. Package contents may vary depending on the confirmed sales order and local shipping configuration.

Item	Qty.	Unit
CQ1700W switcher main unit	1	pc
Wireless antennas	3	pcs
IR remote control	1	pc
DC 24 V / 3 A power adapter	1	pc
User manual	1	copy

6. Panel Layout & Product Appearance

6.1 Front Panel

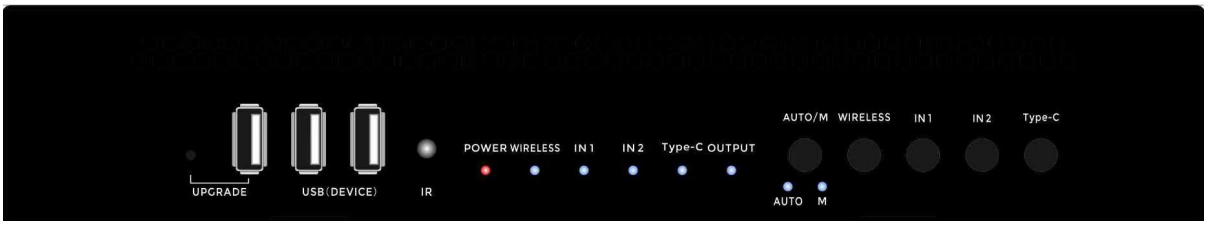


Figure 1. CQ1700W front panel and operating indicators.

Name / Label	Function Description
UPGRADE	Firmware upgrade button / USB maintenance connection.
USB (DEVICE)	USB device / media playback interfaces and supported Miracast reverse control.
IR	IR remote-control receiver.
POWER	Illuminates when the unit is powered.

Name / Label	Function Description
WIRELESS LED	Indicates selected wireless input.
IN1 / IN2 LEDs	Indicate HDMI input 1 / HDMI input 2 selection.
Type-C LED	Indicates selected USB-C input.
OUTPUT	Indicates HDMI output status.
AUTO / M LEDs	Show automatic versus manual source-selection mode.
AUTO/M Button	Switches between automatic and manual operation.
WIRELESS / IN1 / IN2 / Type-C	Dedicated source selection pushbuttons.

6.2 Rear Panel

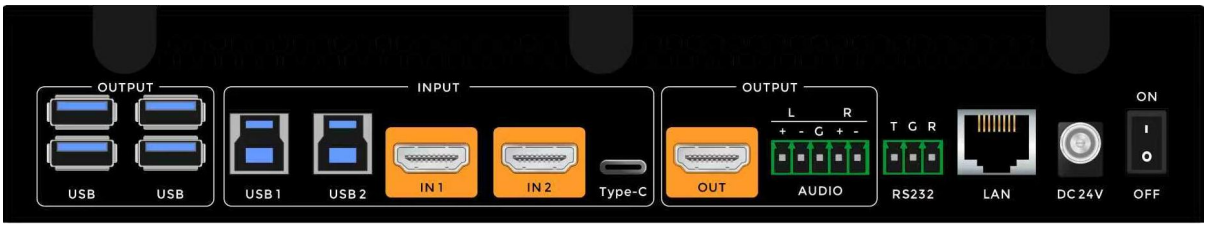


Figure 2. CQ1700W rear panel with video, USB, network, serial and power ports.

Name / Label	Function Description
USB (4 ×)	Four USB 3.0-A downstream peripheral ports.
USB1 (USB-B)	USB 3.0 upstream host connection associated with HDMI IN1.
USB2 (USB-B)	USB 3.0 upstream host connection associated with HDMI IN2.
IN1 / IN2	HDMI input 1 / HDMI input 2.
Type-C	USB-C video / host interface with up to 60 W PD.
OUT	HDMI display output.
AUDIO	Phoenix-style audio de-embedding terminal.
RS232	RS-232 control terminal.
LAN	RJ45 network interface for supported wireless functions.
DC 24V	DC 24 V / 3 A adapter input.
ON / OFF	Main unit power switch.

6.3 Mechanical Drawing

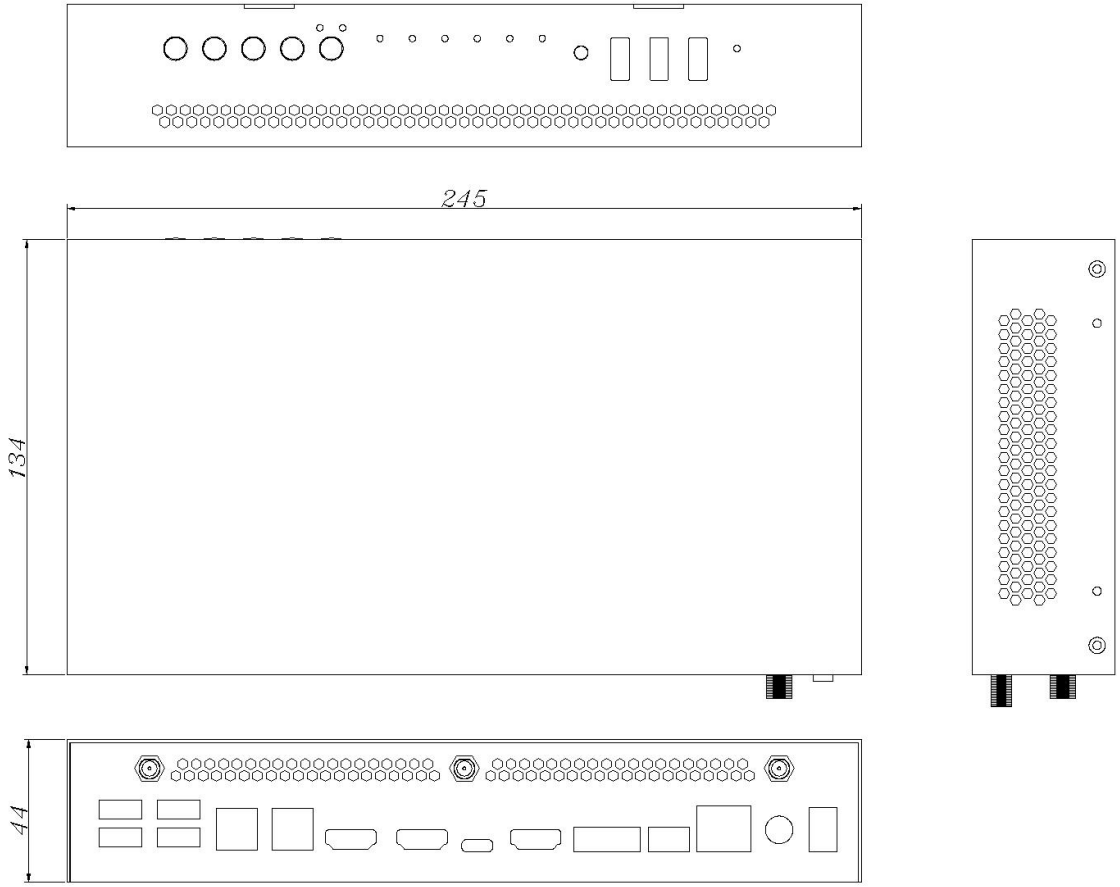


Figure 3. Mechanical / chassis drawing supplied with the CQ1700W source manual.

7. Installation & Switching Operation

7.1 Standard Connections & Power-On

- Turn the CQ1700W and all source/display devices off. Connect the display to the rear-panel HDMI OUT.
- Connect wired HDMI computers to IN1 and/or IN2. For USB peripheral sharing, connect the matching computer to USB1 or USB2 (USB-B upstream) respectively.
- Connect a compatible full-function USB-C computer to the Type-C input if USB-C presentation and power delivery are required.
- Connect USB peripherals to the four rear-panel USB 3.0-A outputs; connect the three wireless antennas securely.
- Connect network and any RS-232 control wiring as required, and connect the AC adapter to DC 24V.
- Switch the rear-panel power switch to ON. Confirm that POWER lights and the display shows the expected source or wireless main screen.

7.2 Front-Panel Video Switching

Press WIRELESS, IN1, IN2 or Type-C on the front panel to select that source. The related indicator illuminates and the HDMI output changes to the selected input. Where a supported USB host is associated with the selected source, downstream USB devices follow the source switch.

Example: Press IN2 to display the video signal connected to HDMI IN2. The IN2 LED lights, and the switcher routes the corresponding USB connection to the shared downstream devices.

7.3 Automatic / Manual Switching

Press AUTO/M to toggle between the two source-selection modes. When AUTO is illuminated, the switcher checks source availability and may switch to a newly connected active input; when an input is removed, it selects an available source according to its firmware switching logic. When M is illuminated, select the input explicitly using the corresponding button.

Automatic source priority and transition behavior may depend on firmware. Test the required input sequence during system commissioning.

7.4 Infrared Remote Control



Figure 4. Supplied IR remote control.

Point the remote toward the front-panel IR receiver. Use numeric keys 1–4 to select the corresponding input: 1 = Wireless; 2 = IN1; 3 = IN2; 4 = Type-C. The input indicator confirms the selected source.

Press AUTO on the remote to switch between automatic and manual selection modes. Keep the IR path clear of obstructions for reliable operation.

8. Wireless Screen Mirroring

8.1 Wireless Main Screen

After selecting WIRELESS, the display shows the receiving system's hotspot name, IP address, Wi-Fi band, device name, hotspot password and screen-mirroring code. The main screen also provides guidance for USB casting, Android QuickShare, Miracast and AirPlay.

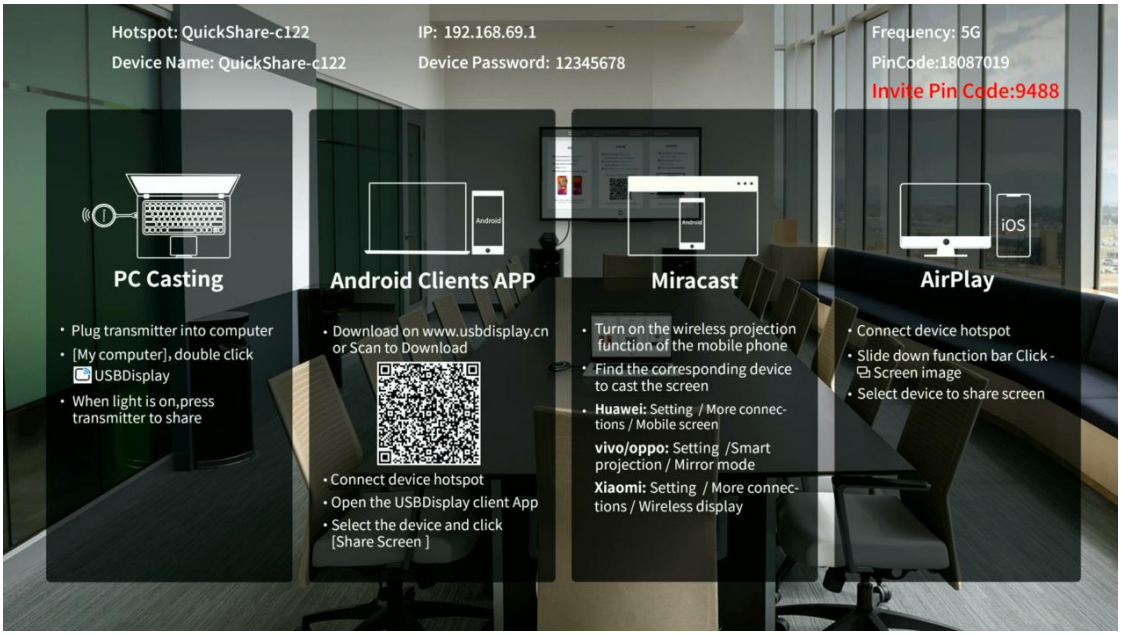


Figure 5. QuickShare wireless presentation home screen and connection options.

8.2 Wireless USB Screen-Mirroring Dongle (Windows)

Connect the compatible USB wireless screen-mirroring transmitter to the computer. On first use, open This PC / Portable Devices and launch the USBDisplay application from the USBDisplay virtual drive if prompted. Follow the publisher's software-security instructions and allow the trusted application through the firewall where necessary; do not disable Windows security globally.

While the dongle initializes, its indicator flashes. After approximately 10 seconds, a steady indicator and a "Press to mirror the screen" message indicate that the device is ready. Click the mirroring prompt to begin casting. If software protection prevents automatic startup, open the USBDisplay drive and run the authorized Launcher application.



Figure 6. USBDisplay casting application status icon.

The status-bar casting icon may provide settings for extending the display, transmitting audio, enabling automatic mirroring, mouse acceleration and video encoding. Available options depend on the installed client version.

8.3 iOS / AirPlay Screen Mirroring

Connect the iPhone or iPad to the CQ1700W wireless hotspot shown on the main screen. Open Control Center, tap Screen Mirroring and select the receiver named QuickShare-xxxx (the actual suffix is device-specific). To finish, return to Screen Mirroring and select Stop Mirroring.



Figure 7. iOS Control Center and AirPlay receiver selection.

A stable 2.4 GHz or 5 GHz Wi-Fi connection is recommended for reliable mirroring. Performance over routed networks may vary with traffic and wireless conditions.

8.4 Android QuickShare Application

For compatible Android devices, obtain the QuickShare client from www.usbdisplay.cn after confirming software authenticity and organizational approval. The stated minimum Android version is Android 5.0. Allow the necessary screen-capture and local-network permissions.



Figure 8. QuickShare Android client icon.

- Enable Wi-Fi and connect the phone to the displayed QuickShare-xxxx hotspot. Launch QuickShare and select the receiver detected on the same network. Choose Start Screen Mirroring.
- Alternatively, tap Scan & Mirror and scan the QR code presented by the receiver; confirm the connection.
- For code-based casting, choose the mirroring-code option, enter the 6-digit or 8-digit code displayed on the receiving screen and select Connect.
- Audio mirroring is supported on compatible Android 10 or later devices, subject to device and application capability.

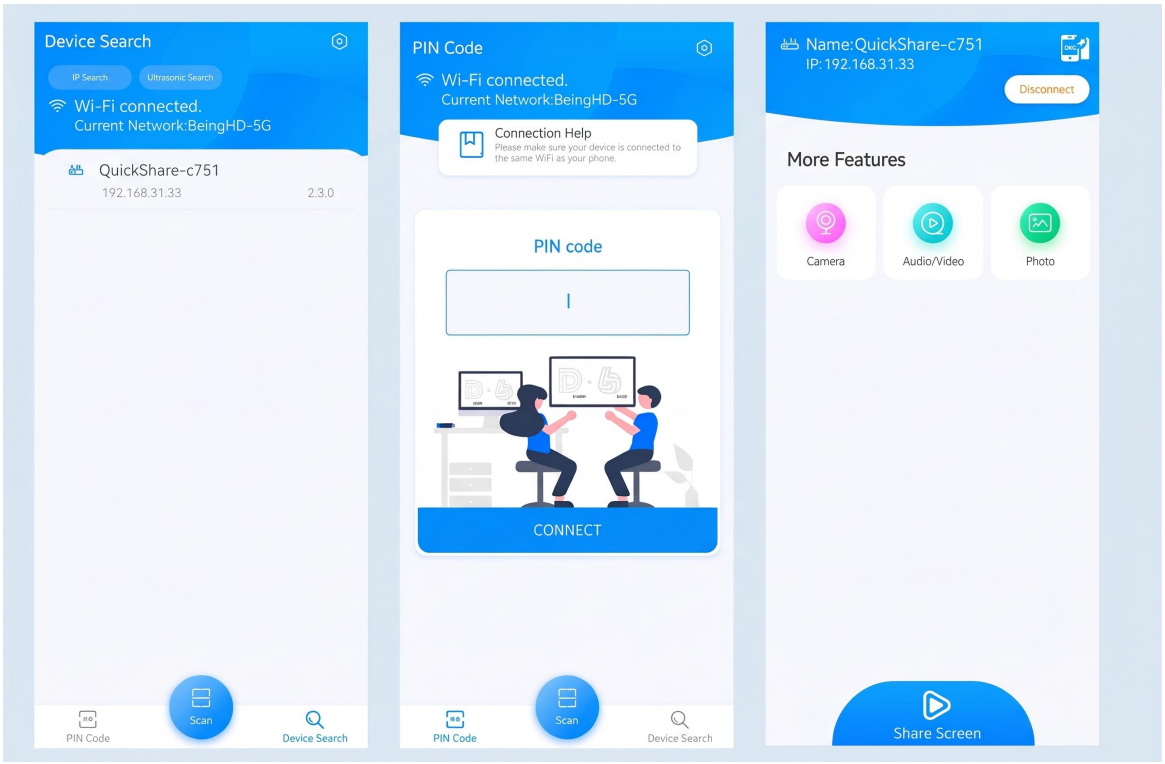


Figure 9. Android QuickShare receiver discovery, PIN entry and mirroring options.

8.5 Native Android / Miracast Screen Mirroring

For devices that support Miracast, open the phone's screen-sharing / Cast / Wireless Display settings, search for compatible displays and choose the CQ1700W receiver (shown as QuickShare-xxxx). Confirm the connection and follow any security-code prompt. To end casting, select Disconnect.

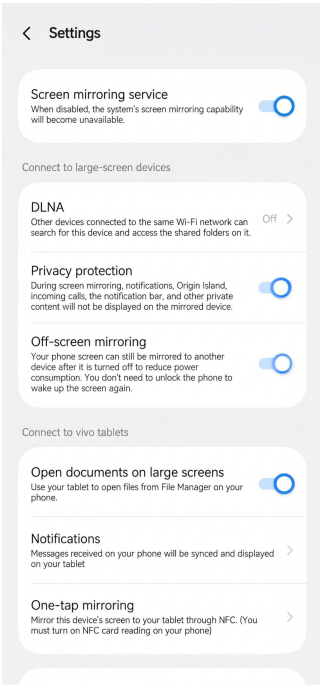


Figure 10. Example Android wireless-display settings.

8.6 Windows Wireless Display & Client Casting

For native wireless-display projection, press Win + K on a compatible Windows computer (or select the wireless display option from the system projection settings), then select the CQ1700W receiver and follow the prompts.

Alternatively, install an approved QuickShare Windows client from www.usbdisplay.cn and keep the PC and receiver on the same local network or hotspot. Connect by entering the receiver's 6- or 8-digit code, or by searching for the receiver and choosing Start Screen Mirroring.

8.7 macOS Screen Mirroring

Connect the Mac and the CQ1700W receiver to the same Wi-Fi / local network. Open the macOS Control Center or menu-bar Screen Mirroring control and select the QuickShare receiver to begin AirPlay screen mirroring.

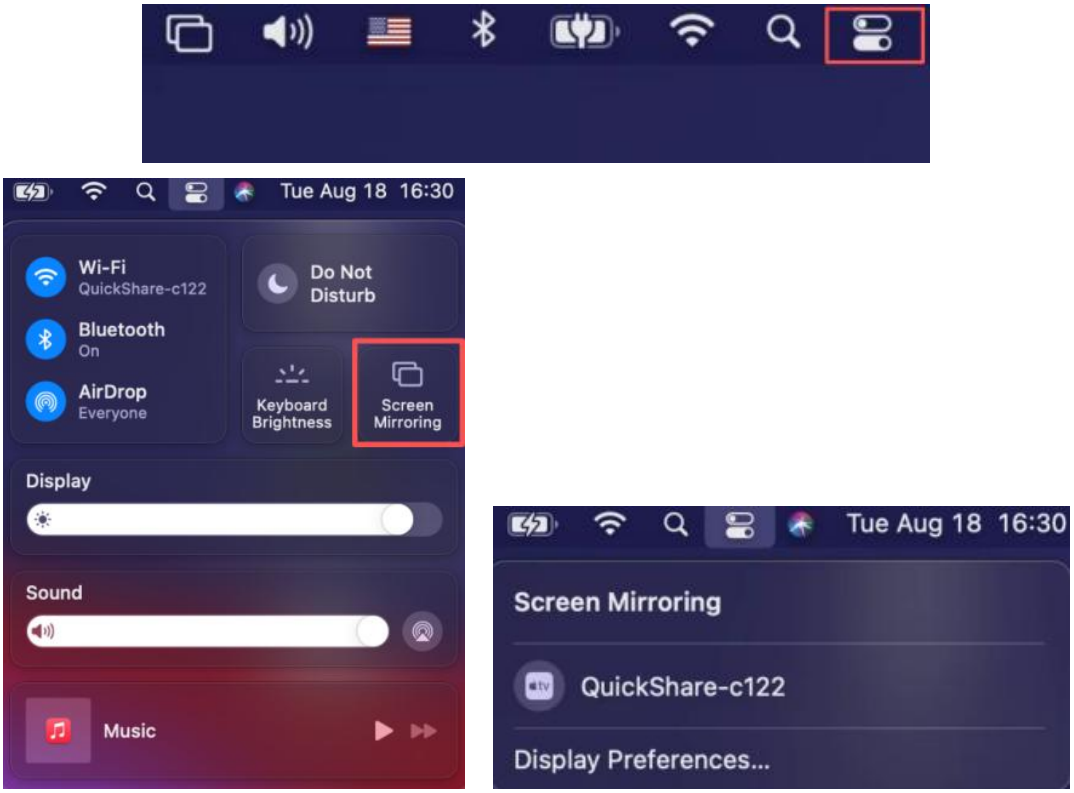


Figure 11. macOS Control Center and available Screen Mirroring destinations.

8.8 Display Behavior

When the wireless input is selected, content from a connected casting device replaces the previous wireless receiver view. In supported multi-screen or exclusive modes, the number and priority of simultaneous connections depend on receiver settings configured in the web interface.

9. Web Configuration & RS-232 Control

9.1 Web Administration Login

Connect a computer or phone to the Wi-Fi hotspot named QuickShare-xxxx using the password shown on the receiver (factory example: 12345678). In a browser, open http://192.168.69.1 and enter the default administration password 12345678 unless it has been changed. *Note: Do not add 's' to http.*

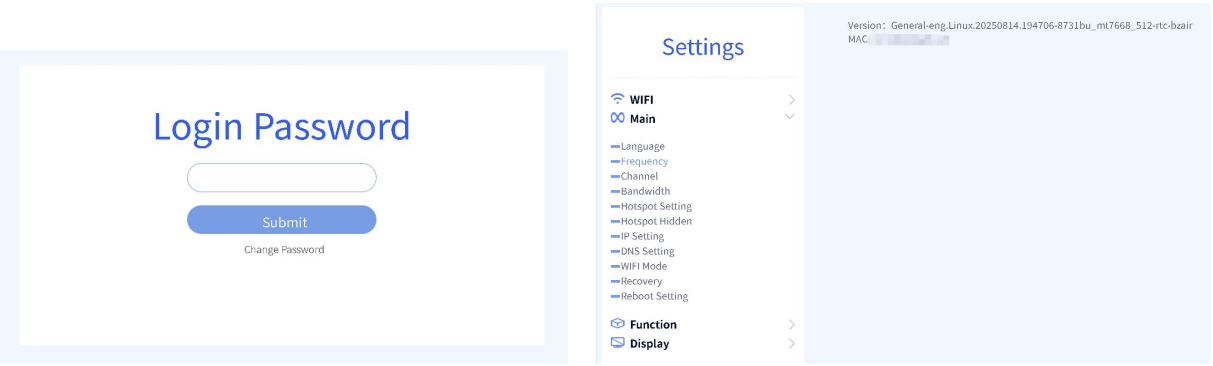


Figure 12. Web login page and CQ1700W wireless receiver settings interface.

For a connected wired network, the actual management address may differ. Use the IP address shown by the receiver or the address configured in Network Settings. Change default passwords during deployment.

9.2 Basic / Network Settings

9.2.1 Interface Language

Open Basic Settings > Language; select Chinese or English, confirm and allow the receiver to restart.

9.2.2 Hotspot Frequency Band

In Basic Settings, choose 2.4 GHz or 5 GHz, save the change and restart to apply it.

9.2.3 Hotspot Channel

Choose the preferred hotspot channel under Basic Settings > Hotspot Channel, confirm and restart.

9.2.4 Hotspot Password

Set a new Hotspot Password in Basic Settings, confirm and restart. Update saved Wi-Fi connections on the clients.

9.2.5 Hotspot Name

Change Hotspot Name (SSID) in Basic Settings, save and restart. The receiver name shown on client devices will reflect the configured name.

9.2.6 Wired IP / DHCP

In Basic Options > IP Settings, choose Static IP and enter a valid network address, or choose DHCP for automatic assignment. Use the configured address to access the web interface after changing to static IP.

9.2.7 Restore Factory Defaults

Use Basic Settings > Restore Factory Settings and confirm, or hold the receiver Reset button for approximately 10 seconds while powered on, as described in the source. All customized settings may be lost.

9.3 Function Settings

9.3.1 Single / Dual / Exclusive Screen Modes

Under Function Settings > Dual Screen, select Single Screen, Dual Screen or Exclusive Mode and confirm. The receiver restarts. In Exclusive Mode, additional clients cannot capture the screen while another device is already presenting.

9.3.2 Aspect Ratio

Under Function Settings > Screen Display Ratio Mode, select Maintain Aspect Ratio or Stretch Display. This option applies to supported AirPlay dual-screen operation and is hidden in single-screen mode.

9.3.3 USB Flash-Drive Media Playback

Format a USB flash drive as FAT32, create a folder named Media at the root, and store supported audio, video or image files in that folder. With no active casting session, the receiver automatically plays recognized media files.

9.3.4 Wallpaper Upload / Selection

Use Function Settings > Upload Wallpaper to upload a 1920 × 1080 image smaller than 500 KB. Then choose Custom Wallpaper under Background Settings and restart. To revert, choose Native Wallpaper and restart.

9.3.5 Hotspot Password Visibility

In Function Settings > Password Display Settings, select Display Password or Hide Password, confirm and restart. When hidden, the hotspot password appears as asterisks on the home screen.

9.3.6 Screen-Mirroring PIN Code

Choose whether a 6-digit or 8-digit Screen Mirroring Code is shown, confirm and restart. The PIN display is disabled by default.

9.3.7 Prompt Card / Tip Card

Choose Hide Card under Function Settings > Prompt Card, confirm and restart to hide on-screen guidance.

9.3.8 Miracast Connection Code

Enable Miracast Connection Code, confirm and restart. A code appears on the main screen when a Miracast session requires pairing.

9.3.9 Miracast Channel

Select the intended Miracast Channel Mode, confirm and restart for the selection to take effect.

9.3.10 Miracast Reverse Control

Enable Miracast Reverse Control and restart. With a compatible client and external touch frame, the mirrored device may be controlled remotely. Smartphone compatibility is limited and includes certain Huawei / Honor devices.

9.3.11 OTA Receiver Firmware Upgrade

In Function Settings, choose Upload File and select the approved receiver firmware package. Confirm, allow the upload and automatic restart to finish, and do not disconnect power during installation.

9.3.12 AirPlay Mirror / Stream Mode

Select Mirror Mode or Streaming Mode under AirPlay Streaming Mode and restart. The setting is only available in single-screen mode; app-specific streaming behavior may depend on content-protection requirements.

9.3.13 Centralized Control Client

This feature is not currently supported.

9.4 Display Settings

9.4.1 HDMI Image Scaling

In Display Settings > HDMI Scaling, enter a percentage from 60 to 100 (default 100, full screen), then confirm. The new scale is applied immediately.

9.4.2 Image Rotation

Under Display Settings > Screen Rotation, select Landscape, 90° or 270°, confirm and restart.

9.4.3 AirPlay Resolution

Select the required AirPlay Resolution in Display Settings, confirm and restart.

9.4.4 HDMI Output Signal

Use Display Settings > HDMI Signal Settings to enable or disable the HDMI output for normal source display. During casting, the receiver may continue to show the wireless presentation when source display has been disabled, subject to receiver behavior.

9.4.5 HDMI Output Resolution

Select the required output setting under Display Settings > HDMI Resolution and confirm.

9.4.6 Miracast Display Mode

Select Default Mode or Full Height Fill Mode and restart. The setting affects Miracast layout in dual-screen mode; it is hidden in single-screen mode.

9.5 RS-232 Serial Control

Connect a suitable RS-232 control cable between the host controller and the rear-panel RS232 terminal. Use a serial terminal application, such as SSCOM32, configured for the parameters below.

Parameter	Setting
Baud Rate	115200 bps
Data Bits	8
Stop Bits	1
Parity	None (8N1)

The currently available serial-interface information does not establish distinct, validated command strings for each selectable input. The table below identifies the available control targets; request verified command syntax for the installed firmware before programming external control.

Control Target	Function
Wireless	Select the wireless presentation input.
IN1	Select wired HDMI input 1.
IN2	Select wired HDMI input 2.
Type-C	Select the USB-C input.

Important: Obtain the verified CQ1700W RS-232 command list and message terminators for the installed firmware before programming a third-party control system.

10. Troubleshooting & Notes

10.1 Troubleshooting

Symptom	Possible Cause & Suggested Action
POWER indicator off	Check the AC outlet, DC 24 V / 3 A power adapter, rear-panel power switch and connector seating.
No picture on HDMI display	Verify display input, HDMI OUT connection, source power and selected WIRELESS / IN1 / IN2 / Type-C LED. Test a lower supported resolution.
USB peripheral not detected	Check the selected input and corresponding USB-B upstream connection, USB device cable and host driver. Reconnect the peripheral after switching.
USB-C laptop not charging	Check USB-C host cable, computer PD compatibility and maximum supported 60 W PD power.
Auto switching unexpected	Confirm AUTO/M status, source detection and connection order. Change to manual mode when precise switching order is required.
Wireless screen not found	Confirm WIRELESS source, same local network/hotspot, compatible client, wireless permissions and approved firewall settings.
Wireless casting unstable	Check Wi-Fi signal strength, 2.4 / 5 GHz band, network congestion, receiver visibility and source device compatibility.
Web configuration unavailable	Connect to receiver SSID, confirm hotspot password and management IP, or check configured wired IP / DHCP state.
No RS-232 control response	Check cabling, GND / TX / RX wiring, 115200 8N1 and the firmware-specific confirmed command syntax.

10.2 Operating Notes

- The HDMI 18 Gbps rating and 4K60 4:4:4 format describe the maximum specified wired-video capability; actual mode negotiation also depends on source, cable and display.
- Only the supported USB host for the selected source can control the shared USB devices at a given time. USB peripherals may need to re-enumerate after a switch.
- Wireless presentation experience depends on wireless conditions, client OS compatibility and installed QuickShare / Miracast / AirPlay versions.
- The equipment supports a factory-default hotspot and web password; change credentials for production deployments and keep firmware under change control.
- Confirm the mechanical dimensions against the final production chassis before preparing mounting hardware.
- Request the current, validated serial-control protocol before commissioning third-party system integration.

11. Warranty Service

11.1 After-Sales Support

For installation assistance, operation questions or suspected hardware faults, contact PANIO or the authorized sales/service representative. Provide the CQ1700W model number, purchase information, connection diagram, LED state, firmware version and details of the issue.

11.2 Limited Warranty

CQ1700W is covered by a one-year limited warranty under normal operating conditions, subject to official sales and warranty terms. For an eligible manufacturing or material defect, the authorized provider may repair or replace the affected product, or apply another remedy specified by the governing terms.

11.3 Warranty Exclusions

- Misuse, incorrect operation, neglect, impact, abnormal voltage or unsuitable power supplies.
- Unauthorized repairs, modifications, disassembly or service by non-authorized parties.
- Damage caused by incorrect cabling, unsuitable environmental conditions or liquid ingress.
- Data, firmware and software information stored on equipment sent for service should be backed up in advance; responsibility for data preservation is governed by the applicable service terms.

11.4 Environmental Protection

Dispose of electronics through approved recycling channels. Product specifications and operation screens may change with hardware and firmware revisions; consult official PANIO documentation for updates.