Wireless Screen Sharing User Guide

Date	Version No.	Updates	Prepared by
19th Oct, 2025	V1.0	Applicable Models: Hisense Digital Signage **DM Series** Firmware Requirement: Android 11.0 or higher	Lydia Zhao

Introduction

ScreenCast is a built-in wireless sharing feature that allows users to cast content from their mobile devices or computers to a Hisense DM series' display – no cables required.
It is ideal for showing presentations, product videos, or advertising content directly from your phone, tablet, or laptop.

Key Features

- Cross-platform compatibility: Windows / Android / iOS / macOS / Chrome OS
- Full-HD wireless display with low latency
- No additional software needed for Android and Windows (Miracast)
- QR or PIN code pairing for quick and secure connections
- Multi-device connection (connect several sources, display one at a time)
- Easy switching between sources directly from the ScreenCast interface

System Requirements

Device Type	OS Version	Casting Method
Android	Android 8.0 or later	Miracast / ScreenCast
Windows	Windows 10/11	Wireless Display / Miracast
iOS	iOS 12.0 or later	AirPlay
macOS	macOS 10.12 or later	AirPlay
Chrome OS	Latest version	ChromeCast

Network Requirement:

Both the display and the device must be connected to the **same Wi-Fi network**, or the user can connect directly to the display's **built-in ScreenCast hotspot**.

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Launching ScreenCast

1. Power on your Hisense DM display.
2. Press All APP from the Home screen.
3. Select **ScreenCast**.
4. A standby screen will appear showing a **QR code**, **PIN code**, and **network name** (SSID).

You are now ready to connect a device.

Casting from Different Devices

A. Android Devices

1. Pull down the **quick settings panel**.
2. Tap **Smart View / Cast / Wireless Display / Screen Mirroring** (varies by device brand).
3. Select your Hisense DM display name (e.g., *Hisense_DM55D*).
4. Confirm connection if prompted.

Tip: For the most stable performance, connect both devices to the same Wi-Fi or use the ScreenCast hotspot displayed on the screen.

B. Windows Devices

1. On the display: enable Wi-Fi Display under Settings → Network → Wi-Fi Display → On
2. On the window device: Press **Win + K** or go to **Settings → System → Display → Connect to a wireless display**.
3. Choose your Hisense DM display from the list.
4. Enter the **PIN code** shown on the display if required.

C. iOS / macOS (AirPlay Mode)

1. Make sure the display and your Apple device are on the same Wi-Fi network.
2. On iPhone/iPad: open **Control Center → Screen Mirroring**.
   On Mac: click the **AirPlay** icon in the top menu bar.
3. Select your Hisense DM display name.
4. Enter the PIN code shown on the display if prompted.

D. Chrome OS / Chrome Browser

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1. On your Chromebook or in a Chrome browser window, click ⋮ → **Cast** → **Sources** → **Cast screen / window / tab**.
2. Select your Hisense display.
3. Confirm sharing.

Ending the Casting Session

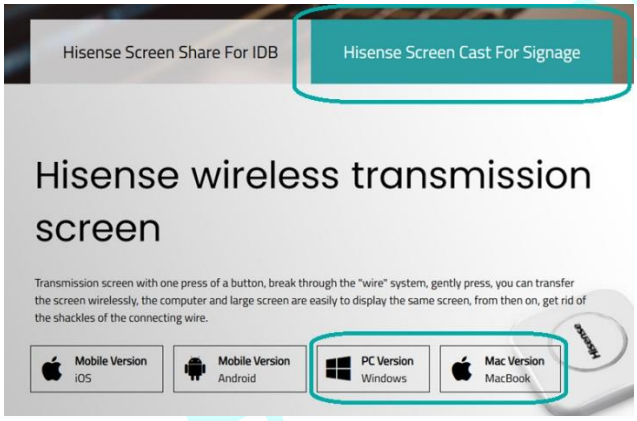
- Tap **Disconnect** on your device.
- Or use the remote control to press **Exit** or reselect another input source.
- The display will return to the **ScreenCast standby screen**.

HiScreenCast Companion App (Windows / macOS / Android / iOS)

HiScreenCast allows easy connection from external devices. The app detects displays on the same network or allows manual PIN/IP entry. On mobile devices, One-Touch Cast, Reverse Cast, File Cast, and Smart Remote are supported.

Download and Installation

Windows/macOS



https://www.hisense-b2b.com/en/downloads

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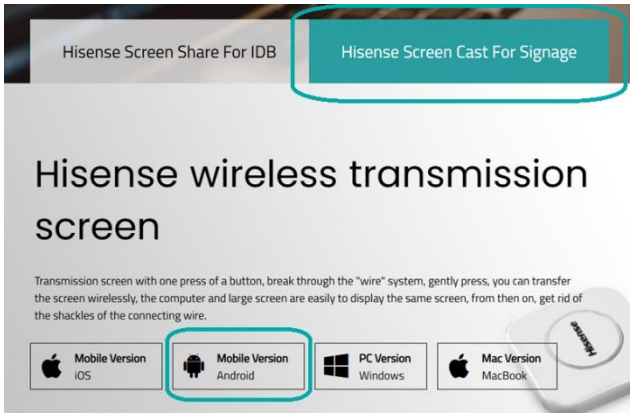
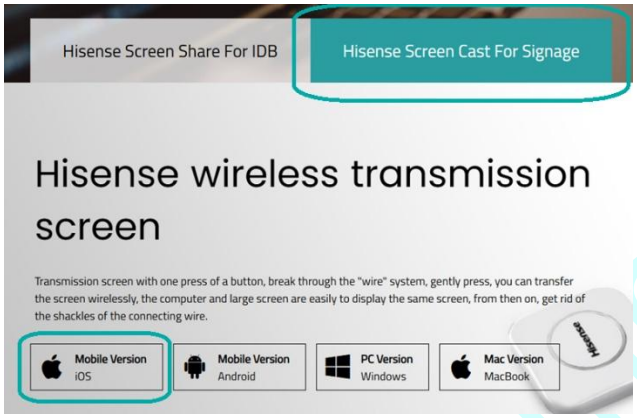
Android



https://play.google.com/store/apps/details?id=com.hisense.hiscreencast

iOS/iPadOS



https://apps.apple.com/app/id1639638642

Quick Start

1. Power on the display and open the ScreenCast input.
2. Check the on-screen network name and PIN code.
3. Connect your device to the same Wi-Fi network.
4. Launch the HiScreenCast app on your device.
5. Enter the PIN or select the display name.
6. Tap Connect → Start Casting.
7. Press DISCONNECT from the app or EXIT on the remote to end the session.

How Miracast Works

What Is Miracast?

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Miracast is a **wireless display standard** developed by the **Wi-Fi Alliance**.
It allows one device (like a laptop or phone) to **mirror its entire screen** — including audio and video — onto another device (like your Hisense DM display) **without needing a Wi-Fi router or internet connection**.
It's often described as **"HDMI over Wi-Fi"**, because it transmits the same content wirelessly.

How Miracast Works (Technical Overview)

1. **Peer-to-Peer Connection via Wi-Fi Direct**
   - When you start casting from a Miracast device (e.g., "Connect to a Wireless Display" in Windows or "Smart View" on Android),
     it searches for nearby **Miracast receivers** (like *Vision-xxxx* on your Hisense display).
   - Once selected, the two devices create a **direct Wi-Fi connection** (Wi-Fi Direct), bypassing your local Wi-Fi router entirely.

   So, **no hotspot or internet is required** — the devices talk directly to each other.
2. **WPS Handshake & Secure Link Setup**
   - The devices perform a **WPS (Wi-Fi Protected Setup)** handshake for authentication.
   - A **secure channel (AES encryption)** is established between the sender and receiver.
   - The connection includes both **video** and **audio** data channels.
3. **Real-Time Media Streaming**
   - Once connected, the sender **encodes the screen's video stream** (using H.264 codec) in real time.
   - The encoded stream is transmitted wirelessly to the receiver.
   - The Hisense display **decodes the H.264 stream** and renders it instantly on screen.
   - Audio is sent via a separate synchronized channel (often PCM or AAC).
4. **Low-Latency Display Mirroring**
   - Typical latency: 100–200 ms.
   - Resolution: up to **1080p at 60 fps**, depending on network quality.
   - Because it's direct Wi-Fi, quality is higher and delay lower than browser-based casting.

Network Roles

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Device	Role	Description
Hisense DM Display	Miracast Receiver (Sink)	Advertises itself as a Wi-Fi Direct display; decodes and shows the video.
PC / Phone	Miracast Sender (Source)	Captures screen output, encodes to H.264, and transmits wirelessly.
Hisense DM Display	Miracast Receiver (Sink)	Advertises itself as a Wi-Fi Direct display; decodes and shows the video.

When to Use Miracast

Best for:

- Windows 10/11 or Android devices
- Offline environments (no router or hotspot)
- Presentations, demonstrations, or temporary sharing

Not ideal for:

- Apple devices (use AirPlay instead)
- Environments with heavy Wi-Fi interference or strict IT firewalls

How to Enable It on Hisense DM Series

1. On the display, go to **Settings** → **Network** → **Wi-Fi Display** → **ON**
   (This activates Miracast receiver mode.)
2. On your device:
   - **Windows:** Press **Win + K** → **Connect to a Wireless Display** → select your Hisense display (e.g., *Vision-xxxx*).
   - **Android:** Swipe down → **Smart View / Cast / Wireless Display** → select your Hisense display.
3. The display shows a **PIN code** or asks for confirmation → accept to connect.
4. Mirroring starts automatically — you'll see your device's entire screen on the display.

Miracast vs. Other Methods

Feature	Miracast	AirPlay	DLNA	HiScreenCast App
Uses Wi-Fi Direct	✅	❌	❌	❌
Needs same Wi-Fi network	❌	✅	✅	✅
Screen Mirroring	✅	✅	❌	✅
File/Media Sharing	❌	✅	✅	✅
Works Offline	✅	❌	❌	✅

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Pro Tips

- Keep both devices within **3–5 m** for stable connection.
- Avoid busy 2.4 GHz networks; prefer **5 GHz Wi-Fi** for better performance.
- Disable VPN or enterprise proxy during casting (they may block Wi-Fi Direct).
- For interactive models, enable **Touchback** if available (not on DM series).

How DLNA Works

When you enable **DLNA** in the **ScreenCast settings**, the display registers itself as a **DLNA renderer** — meaning:

- Phones, PCs, or NAS servers on the **same Wi-Fi/Ethernet network** can detect it as a playback target.
- You can then **"Play to" / "Cast to" / "Stream via DLNA"** directly from compatible apps (e.g., Windows Media Player, VLC, Samsung Gallery, or File Manager apps).

DLNA from Windows

1. Connect the PC and Hisense DM display to the same network.
2. Right-click a video or image → **Cast to device** → **[Vision-xxxx]**.
3. The display plays the file directly, no screen mirroring needed.

DLNA from Android

1. Open Gallery or File Manager → choose video or image → **Share** → **Cast / Smart View** → **DLNA / Hisense Display.**
2. The content streams to the DM display through the local network.

When to Use DLNA vs. Other Protocols

Protocol	Purpose	Requires Same Network	Mirrors Screen	Quality
Miracast	Wireless display mirroring (Windows/Android)	❌ No	✅ Yes	Real-time, 1080p
AirPlay	Wireless mirroring (Apple devices)	✅ Yes	✅ Yes	High
DLNA	Media file streaming only	✅ Yes	❌ No	Original file quality
Browser Cast / App Cast	Wireless connection via app or IP	✅ Yes	✅ Yes	Depends on network

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Best Practices for DLNA on DM Series

- Enable DLNA only when you want to stream **local media files**, not mirror a screen.
- Make sure both devices are on the **same LAN** (wired or wireless).
- Avoid VPN or guest Wi-Fi, which isolate devices.
- Keep **"DLNA"** toggle **ON** in *ScreenCast Settings → AirPlay/DLNA section*.

When the Hotspot ***Is*** Useful

The built-in **hotspot function** on the display is mainly for:

- **Browser casting** or **HiScreenCast app** users who need a network to connect to (when no external Wi-Fi is available).
- **AirPlay or DLNA** when the display and the source device must share the same network.

Problem	Possible Cause	Solution
Miracast (Windows / Android)	❌ Not required	Works over Wi-Fi Direct, even without router or hotspot
AirPlay (iOS / macOS)	✅ Required	Both must be on the same network
Browser Cast / App Cast via QR	✅ Required (or LAN)	For PIN/IP-based connection
HiScreenCast App (Wi-Fi network)	✅ Usually required	For discovery and PIN/IP pairing

Troubleshooting

Problem	Possible Cause	Solution
Device not listed	Device and display on different networks	Connect both to same Wi-Fi or ScreenCast hotspot
Connection fails	Network restrictions / firewall	Use local router or personal hotspot
Lag or delay	Weak signal or 2.4GHz congestion	Switch to 5GHz Wi-Fi
AirPlay not working	AirPlay service disabled	Enable AirPlay in iPhone/Mac settings
QR code not visible	Source switched Low screen brightness	Reopen ScreenCast input on display Increase brightness or download app manually.

Tips for Best Performance

- Use 5GHz Wi-Fi for smoother casting.
- Keep the display's firmware updated for better device compatibility.
- Disconnect unused casting devices to maintain stability.

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- If the display is in a network-managed environment (e.g., corporate Wi-Fi), ensure the router supports peer-to-peer / Miracast traffic.

Support and Updates

For application download, setup videos, and documentation, visit:

🌐 www.hisense-b2b.com

📧 www.hisense-b2b.com/en/downloads

📧 www.hisense-b2b.com/videogallery

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