LENTION CF53

LENTION USB C to Dual HDMI Adapter User Manual

Model: CF53

1. PRODUCT OVERVIEW

The LENTION USB C to Dual HDMI Adapter (Model CF53) is designed to expand your display capabilities by connecting two external HDMI monitors to your USB-C enabled device. This adapter supports high-resolution video output, making it ideal for productivity, presentations, and entertainment.

Image 1.1: The LENTION USB C to Dual HDMI Adapter, a compact device with a USB-C connector and two HDMI ports, designed for connecting multiple displays.
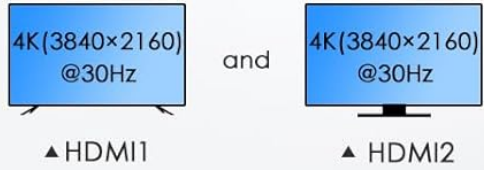
Key features include:

- Dual HDMI Output: Connect two independent HDMI displays.
- High Resolution: Supports up to 4K (3840x2160) at 60Hz for single display output, and 4K (3840x2160) at 30Hz for dual display output.
- Wide Compatibility: Compatible with USB-C devices supporting DP Alt Mode, including MacBook Pro/Air, iPad Pro, Dell XPS, Surface Pro, Chromebooks, and more.
- Signal Shielding: Incorporates technology to prevent interference with 2.4GHz Wi-Fi.
- Durable Design: Features a cable sink design, anti-slip connector, and reinforced braided nylon cable.
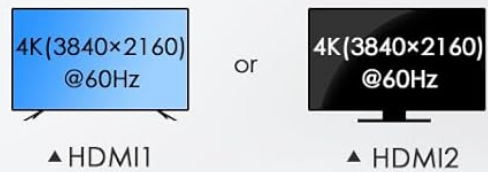
2. SETUP AND CONNECTION

Follow these steps to set up your LENTION USB C to Dual HDMI Adapter:

1. **Prepare Your Devices:** Ensure your host device (laptop, tablet) has a USB-C port that supports DisplayPort Alternate Mode (DP Alt Mode). Prepare your HDMI monitors and HDMI 2.0 (or higher) cables.
2. **Connect HDMI Cables:** Plug one or two HDMI cables into the HDMI ports on the LENTION adapter.
3. **Connect to Monitors:** Connect the other end of the HDMI cables to the HDMI input ports on your external monitors.
4. **Connect to Host Device:** Insert the USB-C connector of the LENTION adapter into the USB-C port of your host device.
5. **Power On:** Power on your host device and external monitors. The displays should automatically detect the connection.

Dual HDMI Output

4K(3840×2160) @30Hz
▲ HDMI1

and

4K(3840×2160) @30Hz
▲ HDMI2

Single HDMI Output

4K(3840×2160) @60Hz
▲ HDMI1

or

4K(3840×2160) @60Hz
▲ HDMI2

Triple Screens
Display Stable & Reliable

Image 2.1: This diagram illustrates the supported resolutions for single and dual HDMI output. For single HDMI output, the adapter supports up to 4K (3840x2160) at 60Hz. For dual HDMI output, it supports up to 4K (3840x2160) at 30Hz for each monitor.

Universal Compatibility

For USB-C devices with DP ALT mode

Host

Macbook	Macbook Pro	DELL XPS 15
Chromebook Pixel	SAMSUNG S9	HUAWEI P20

External Devices

HDTV	Monitor	Projector

Image 2.2: This image displays the universal compatibility of the adapter, showing various host devices like MacBooks, Dell XPS, Chromebook Pixel, Samsung S9, and Huawei P20, along with external devices such as HDTVs, monitors, and projectors.

3. OPERATING THE ADAPTER

Once connected, your operating system will manage the display settings. Here's how different operating systems handle multiple displays:

3.1. Windows OS (ABC / ABB / AAA Modes)

Windows operating systems support various display modes, including:

- **Extend Mode (ABC):** Your laptop screen (A) and two external monitors (B and C) can display different content,

extending your desktop across three screens. This is also known as Multi-Stream Transport (MST).

- **Duplicate Mode (ABB or AAA):**

  - *ABB:* Your laptop screen (A) displays one content, while both external monitors (B and B) duplicate each other's content.
  - *AAA:* All three screens (laptop and two external monitors) display the same content.
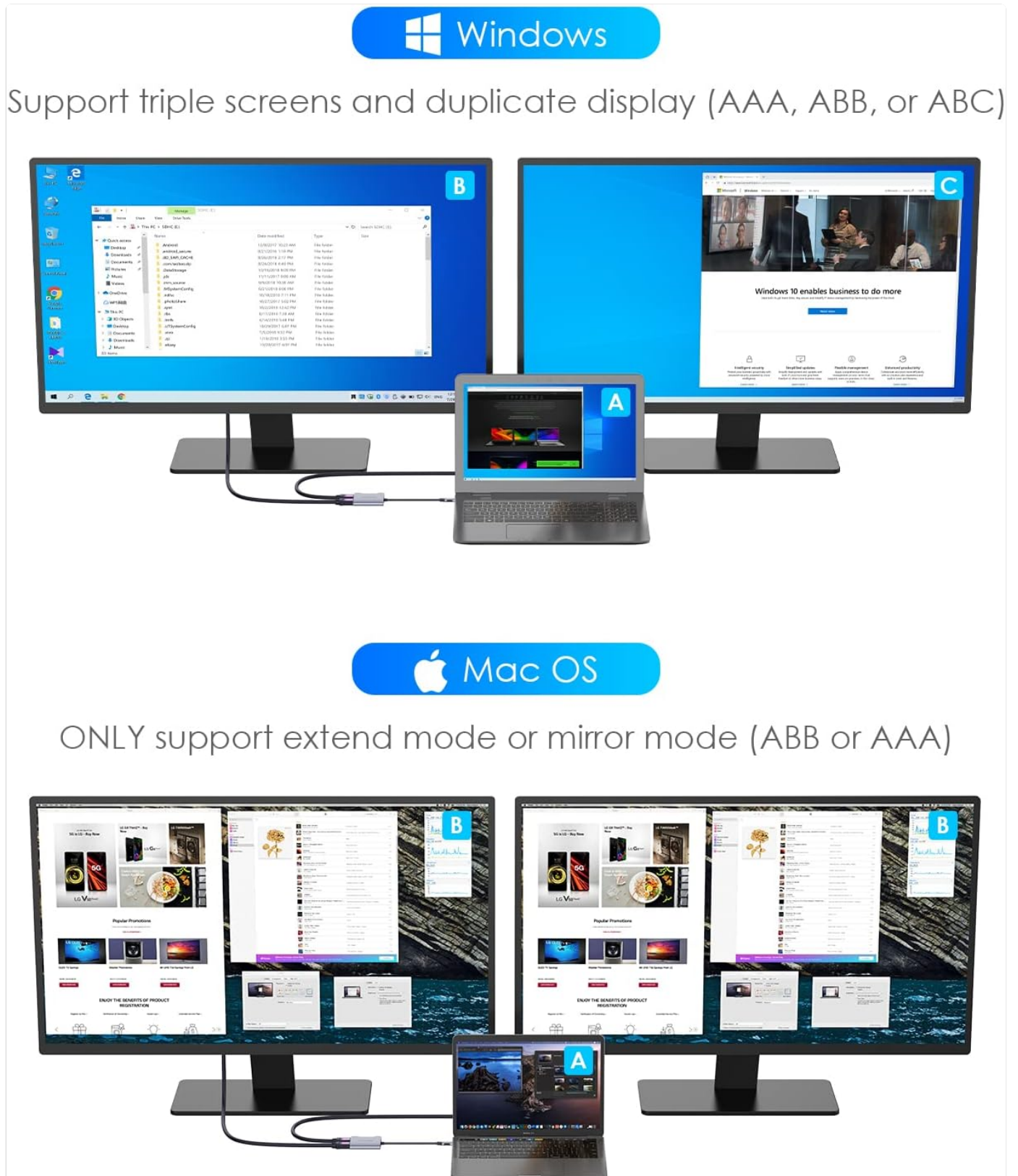

Image 3.1: This image illustrates the display modes supported by Windows and Mac OS. Windows supports triple screens and duplicate display (AAA, ABB, or ABC), allowing for extended desktops. Mac OS only supports extend mode or mirror mode (ABB or AAA), meaning both external monitors will display the same content or mirror the primary display.

3.2. macOS / iPadOS / ChromeOS (ABB / AAA Modes)

Due to operating system limitations, Mac, iPad, and ChromeOS devices will display the same content on both external monitors when using this adapter. This means:

- **Extend Mode (ABB):** Your laptop screen (A) can display different content from the two external monitors (B and B), which will mirror each other.
- **Mirror Mode (AAA):** All three screens (laptop and two external monitors) will display the same content.

It is not possible to have three independent displays (ABC) on macOS, iPadOS, or ChromeOS with this adapter.

3.3. Resolution and Cable Requirements

To achieve optimal resolution, especially 4K at 60Hz for single display or 4K at 30Hz for dual displays, ensure you use high-quality HDMI 2.0 (or higher) cables. Lower quality or older HDMI cables may limit the resolution or refresh rate.

Triple Screens Display

Support up to 4K@30Hz dual HDMI output

Image 3.2: This image shows a laptop connected to two external monitors via the LENTION adapter, demonstrating a triple screen display setup. This configuration supports up to 4K@30Hz dual HDMI output, providing an expanded workspace.

Image 3.3: A laptop connected to a large 4K Ultra HD television via the LENTION adapter, illustrating the ability to connect the device to a bigger screen for enhanced viewing experiences.

4. MAINTENANCE

To ensure the longevity and optimal performance of your LENTION USB C to Dual HDMI Adapter, follow these maintenance guidelines:

- **Cleaning:** Use a soft, dry cloth to clean the adapter. Avoid using liquid cleaners or aerosols, as they may damage the device.
- **Storage:** When not in use, store the adapter in a cool, dry place away from direct sunlight and extreme

temperatures.

- **Handling:** Avoid bending or twisting the cable excessively. Do not drop the adapter or subject it to strong impacts. The cable sink design helps protect the cable from accidental damage.
- **Connectivity:** Ensure the USB-C connector is inserted correctly and fully into your device's port to prevent damage to the port or adapter. The anti-slip connector is designed for easier plugging and unplugging.

Image 4.1: This image highlights the sleek and portable design of the adapter, emphasizing its 2-in-1 functionality. It also points out key features like the USB-C connector, plug-and-play capability, and HDMI ports, along with the cable sink design for better usability.
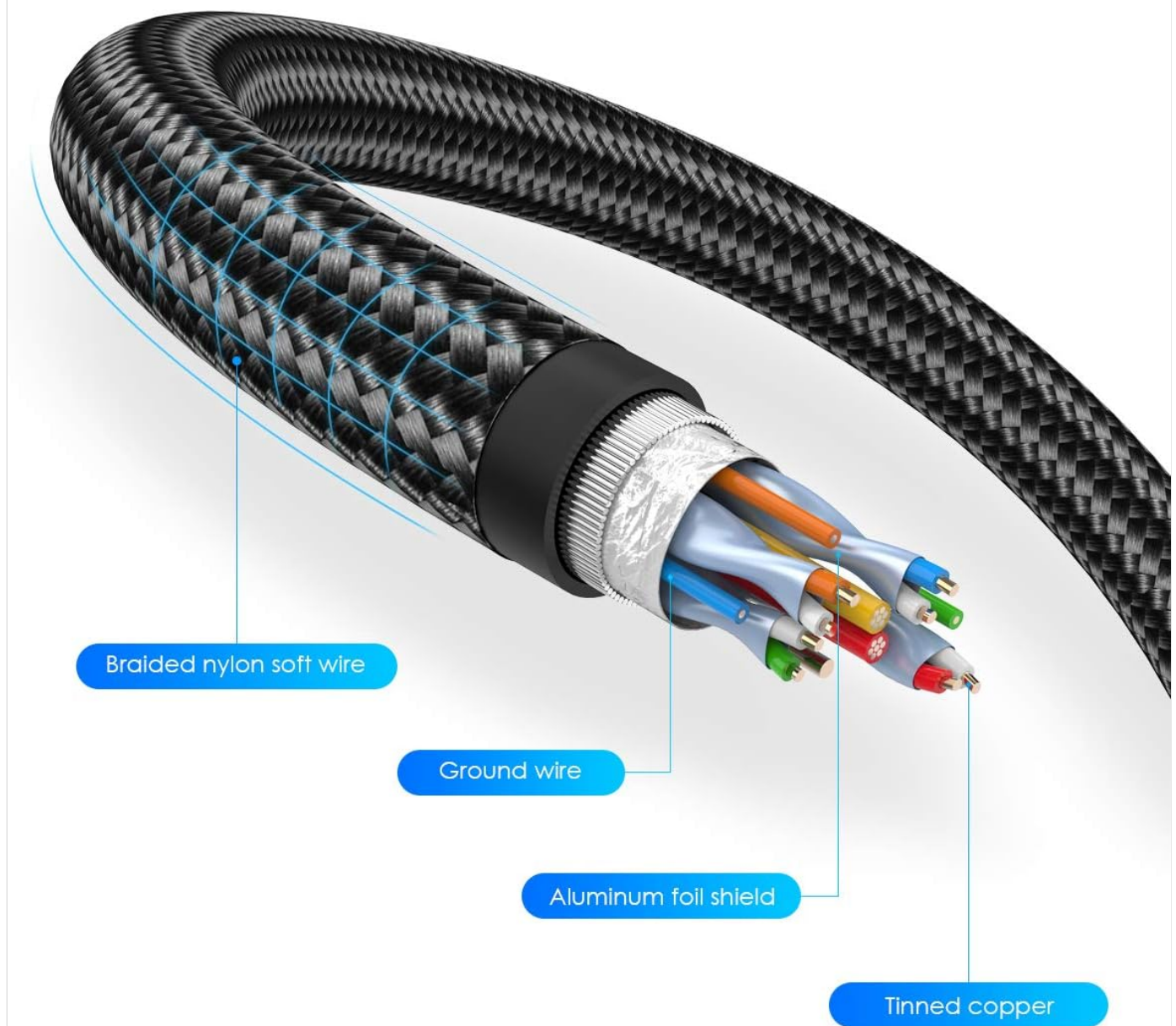
For USB-IF & VESA Standard

Image 4.2: A detailed cross-section view of the adapter's cable, illustrating its robust construction for USB-IF & VESA Standard compliance. Components shown include braided nylon soft wire, ground wire, aluminum foil shield, and tinned copper, all contributing to signal integrity and durability.

5. TROUBLESHOOTING

If you encounter issues while using your LENTION USB C to Dual HDMI Adapter, refer to the following common problems and their solutions:

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
No display on external monitor(s).	Loose connection. Incorrect input source on monitor. Host device's USB-C port does not support DP Alt Mode. Outdated graphics drivers. Faulty HDMI cable.	Ensure all cables are securely connected. Select the correct HDMI input on your monitor. Verify your device's USB-C port supports video output. Update your graphics drivers. Try a different HDMI cable.
Resolution is lower than expected.	HDMI cable not HDMI 2.0 or higher. Monitor does not support desired resolution/refresh rate. Operating system display settings.	Use an HDMI 2.0 (or higher) certified cable. Check your monitor's specifications. Adjust display settings in your OS (e.g., Windows Display Settings, macOS System Preferences).
External monitors mirror each other on Mac/iPad/ChromeOS.	Operating system limitation.	This is expected behavior for these operating systems. The adapter cannot bypass this OS limitation to provide independent extended displays on both external monitors.
Flickering or unstable display.	Loose connection. Cable interference. Power delivery issues (rare for passive adapter).	Reseat all connections. Ensure the adapter is not near strong electromagnetic interference sources. Try a different HDMI cable.

6. Specifications

Feature	Detail
Model	CF53
Brand	LENTION
Input	USB-C (DP Alt Mode required)
Output	2 x HDMI
Single HDMI Output Resolution	Up to 3840 x 2160 @ 60Hz
Dual HDMI Output Resolution	Up to 3840 x 2160 @ 30Hz (per monitor)
HDCP Support	HDCP 2.2
Dimensions (Package)	18 x 12.3 x 1.6 cm
Item Weight	110 grams

Feature	Detail
Material	Aluminum alloy (monocoque casing)
Cable Type	Reinforced braided nylon
Signal Shielding	Yes, to prevent 2.4GHz Wi-Fi interference

7. WARRANTY AND SUPPORT

LENTION products are designed for reliability and performance. For any questions, technical support, or warranty inquiries regarding your LENTION USB C to Dual HDMI Adapter (Model CF53), please contact LENTION customer support through their official website or the platform where you purchased the product.

Please note that spare parts availability information is not provided. Refer to your purchase documentation for specific return and warranty policies.