

VSDISPLAY VS-TY2660H-V661

VSDISPLAY LCD Controller Board VS-TY2660H-V661 Instruction Manual

For 21.5" 1920x1080 LM215WF3-SLA1 LCD Screens

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, maintenance, and troubleshooting of the VSDISPLAY LCD Controller Board, model VS-TY2660H-V661. This controller board is designed to interface with specific 21.5-inch LCD panels, enabling them to function as standalone displays.

2. PRODUCT OVERVIEW

2.1 Key Features

- **Compatibility:** Specifically designed for 21.5-inch 1920x1080 LM215WF3-SLA1 LCD screens with a 30-pin LVDS interface.
- **Video Input:** Supports standard video input.
- **Audio Support:** Includes audio input and audio output via a 4-pin PH2.0 connector for external speakers.
- **Power Efficiency:** Features a standby mode with power consumption less than 1W when no signal is detected.

2.2 What's Included

The package typically includes the following components:

- 1 × Audio LCD Controller Board VS-TY2660H-V661
- 1 × LVDS Cable
- 1 × Backlight Cable
- 1 × Keyboard with Cable

Note: A power adapter is not included in the packing list and must be purchased separately.

Shipping list

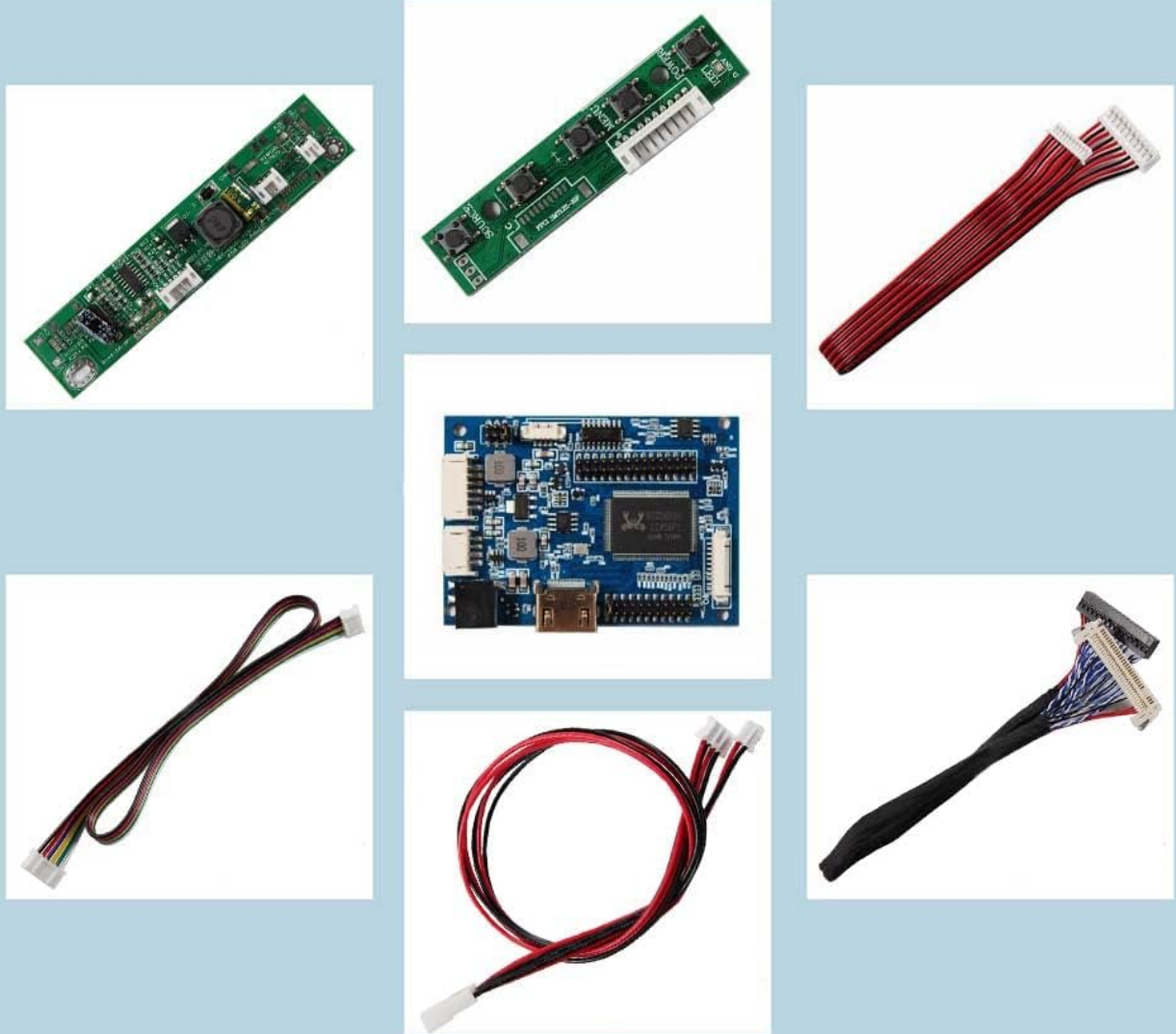
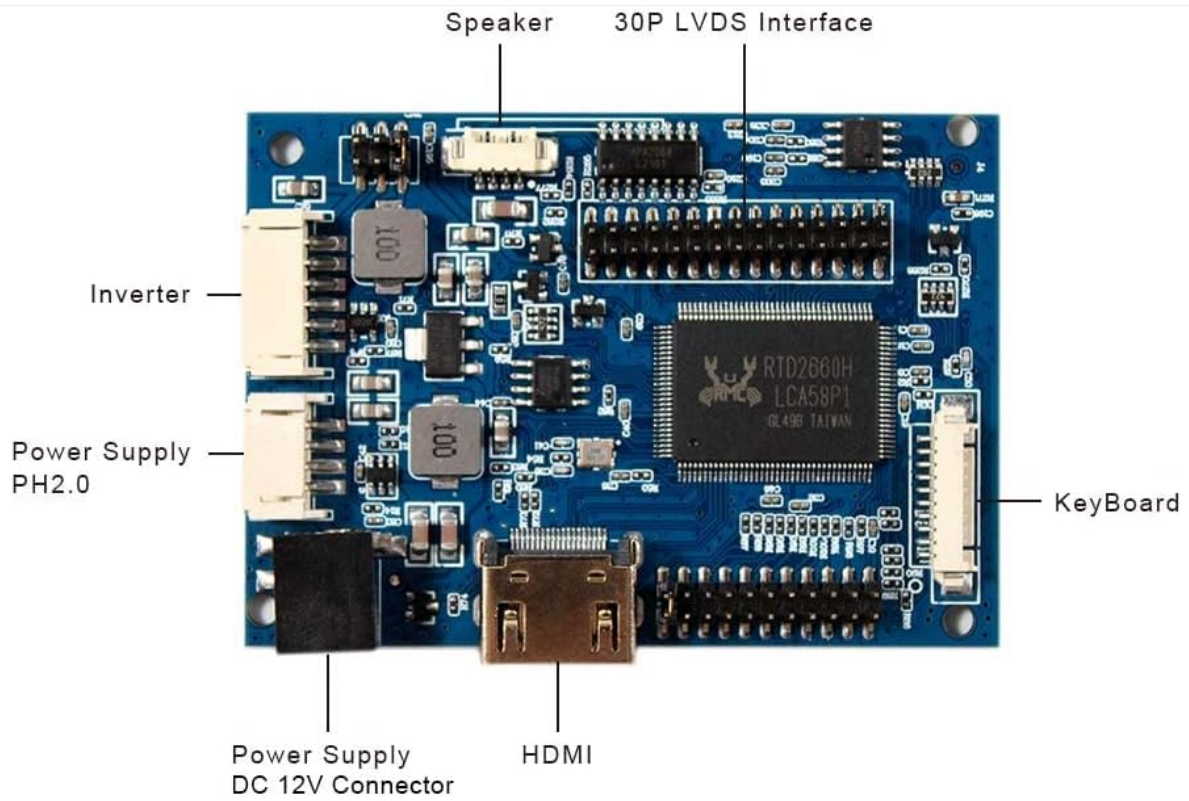


Figure 2.2.1: Typical components included in the VSDISPLAY LCD Controller Board kit. This image displays the controller board, LVDS cable, backlight cable, and control keyboard.

2.3 Board Layout and Connectors

Familiarize yourself with the various ports and connectors on the controller board:



<p style="text-align: center;">HDMI</p> <p style="text-align: center;">HDMI Version 1.4</p>	<p style="text-align: center;">Speaker</p> <p style="text-align: center;">Max 8Ω 2W</p>
<p style="text-align: center;">Power Supply</p> <p style="text-align: center;">DC 12V Connector 5.5x2.1mm</p>	<p style="text-align: center;">Power Supply</p> <p style="text-align: center;">PH2.0</p>

Figure 2.3.1: VSDISPLAY VS-TY2660H-V661 LCD Controller Board with key ports labeled, including HDMI, power supply, inverter, speaker, 30P LVDS interface, and keyboard connectors.

- **HDMI:** HDMI Version 1.4 input.
- **Power Supply (DC 12V Connector):** 5.5x2.1mm barrel jack for 12V DC input.
- **Inverter:** Connector for the LCD panel's backlight inverter.
- **Speaker (PH2.0):** 4-pin PH2.0 connector for audio output, supporting Max 8Ω 2W speakers.
- **30P LVDS Interface:** Connector for the 30-pin LVDS cable to the LCD panel.
- **Keyboard:** Connector for the control keyboard.

3. SETUP AND INSTALLATION

Before beginning installation, ensure all components are present and handle the circuit board with care to avoid electrostatic discharge.

3.1 Required Tools and Components (Not Included)

- Compatible 21.5-inch 1920x1080 LM215WF3-SLA1 LCD panel.
- 12V DC power adapter (minimum 2A output).

- Anti-static wrist strap (recommended).
- Small Phillips head screwdriver.

3.2 Connection Steps

1. **Connect the LVDS Cable:** Carefully connect the 30-pin LVDS cable to the corresponding interface on the LCD controller board and the LCD panel. Ensure correct orientation and a secure connection.
2. **Connect the Backlight Cable:** Attach the backlight cable from the controller board to the LCD panel's backlight inverter.
3. **Connect the Keyboard:** Plug the control keyboard cable into the designated port on the controller board.
4. **Connect Optional Speakers:** If using external speakers, connect them to the 4-pin PH2.0 speaker connector.
5. **Connect Power:** Finally, connect the 12V DC power adapter to the power input jack on the controller board. Do not apply power until all other connections are secure.

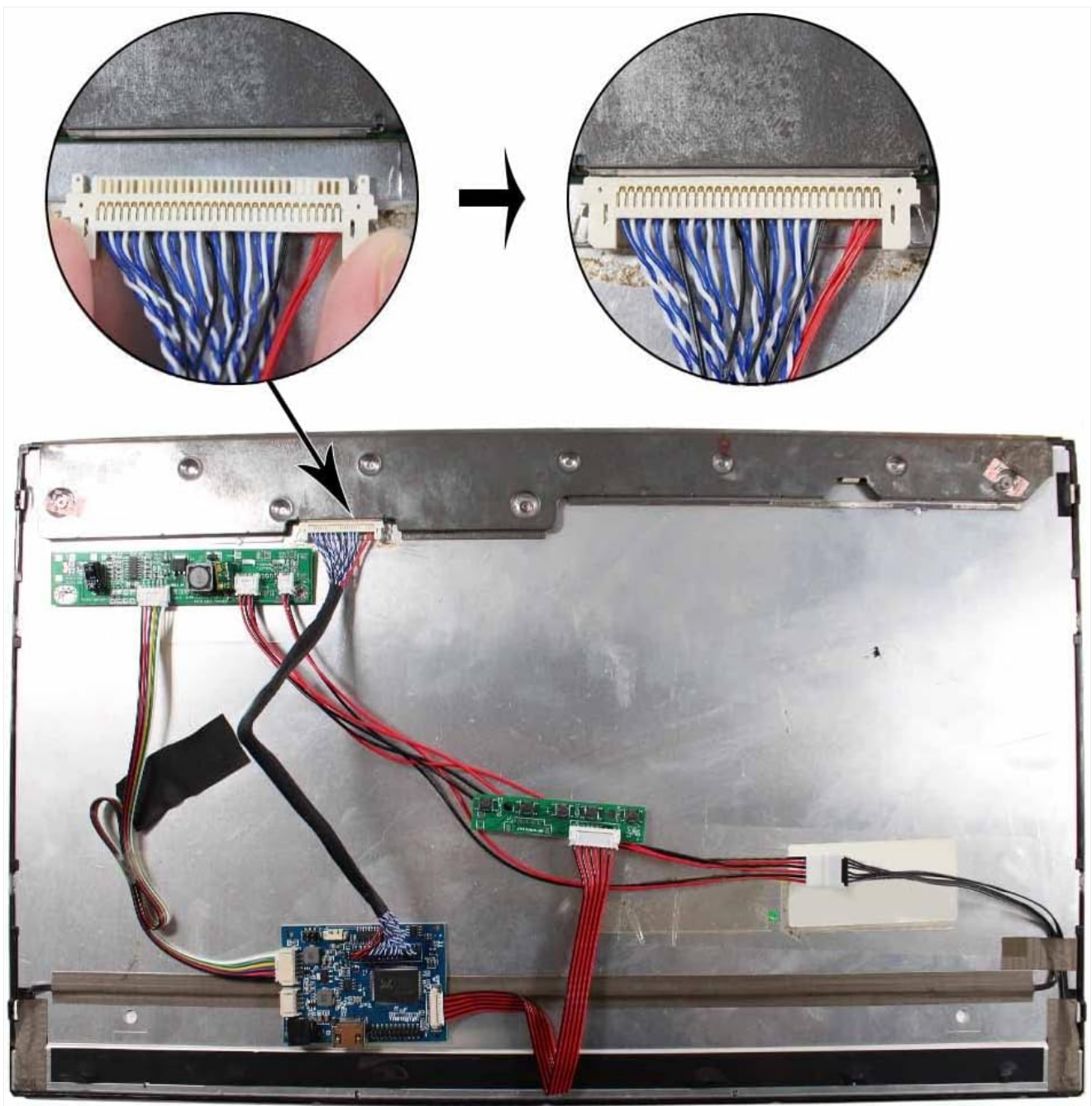


Figure 3.2.1: An example of the VSDISPLAY LCD Controller Board and associated cables connected to the back of an LCD panel. The image highlights the LVDS cable connection point.

Important: Always ensure the power adapter is disconnected before making or changing any connections to

prevent damage to the components.

4. OPERATING INSTRUCTIONS

4.1 Powering On and Off

- **Power On:** Connect the 12V DC power adapter to a power outlet. The LCD panel should illuminate, and the controller board will initiate.
- **Power Off:** Disconnect the 12V DC power adapter from the power outlet.

4.2 Using the Control Keyboard

The included keyboard allows for basic control of the display settings. Specific functions may vary slightly, but typically include:

- **Power Button:** Toggles the display on/off or puts it into standby mode.
- **Menu Button:** Accesses the On-Screen Display (OSD) menu.
- **Navigation Buttons (Up/Down/Left/Right):** Used to navigate through OSD menu options and adjust values.
- **Input Select:** Changes the video input source (e.g., HDMI).

Refer to the on-screen display menu for detailed options such as brightness, contrast, color settings, and aspect ratio.

5. MAINTENANCE

The VSDISPLAY LCD Controller Board is designed for reliable operation with minimal maintenance. Follow these guidelines to ensure longevity:

- **Cleaning:** Use a soft, dry cloth to gently wipe the board if necessary. Avoid using liquid cleaners or solvents.
- **Environment:** Operate the board in a clean, dry environment, away from excessive dust, moisture, and extreme temperatures.
- **Ventilation:** Ensure adequate airflow around the board to prevent overheating, especially if enclosed.
- **Connections:** Periodically check all cable connections to ensure they remain secure.

6. TROUBLESHOOTING

If you encounter issues, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No display/Black screen	<ul style="list-style-type: none">• No power to the board.• Incorrect or loose LVDS cable connection.• Incorrect backlight cable connection.• Incompatible LCD panel.• No input signal.	<ul style="list-style-type: none">• Verify 12V DC power adapter is connected and functional.• Check LVDS cable for proper orientation and secure connection.• Ensure backlight cable is correctly connected.• Confirm LCD panel is LM215WF3-SLA1.• Ensure a video source is connected and active.

Problem	Possible Cause	Solution
No audio	<ul style="list-style-type: none"> Speakers not connected or faulty. Audio settings in OSD menu. 	<ul style="list-style-type: none"> Check speaker connections and functionality. Adjust volume and audio settings in the OSD menu.
Image distortion or incorrect colors	<ul style="list-style-type: none"> Loose LVDS cable. Incorrect OSD settings. 	<ul style="list-style-type: none"> Reseat the LVDS cable. Reset OSD settings to default or adjust color/picture settings.
Keyboard not responding	<ul style="list-style-type: none"> Loose keyboard cable. Faulty keyboard. 	<ul style="list-style-type: none"> Check keyboard cable connection. Test with a known-good keyboard if available.

7. SPECIFICATIONS

Feature	Detail
Model	VS-TY2660H-V661
Compatible LCD Panel	21.5-inch 1920x1080 LM215WF3-SLA1
LVDS Interface	30 Pins
Video Input	HDMI (Version 1.4)
Audio Output	Speaker (4Pin PH2.0 connector, Max 8Ω 2W)
Power Input	12V DC, >2A (5.5x2.1mm connector)
Standby Power Consumption	<1W
Dimensions (Board)	Approximately 2.91 x 2.08 inches (7.4 x 5.3 cm)
Item Weight	7 ounces (approx. 198 grams)
Manufacturer	VSDISPLAY
Date First Available	June 2, 2021

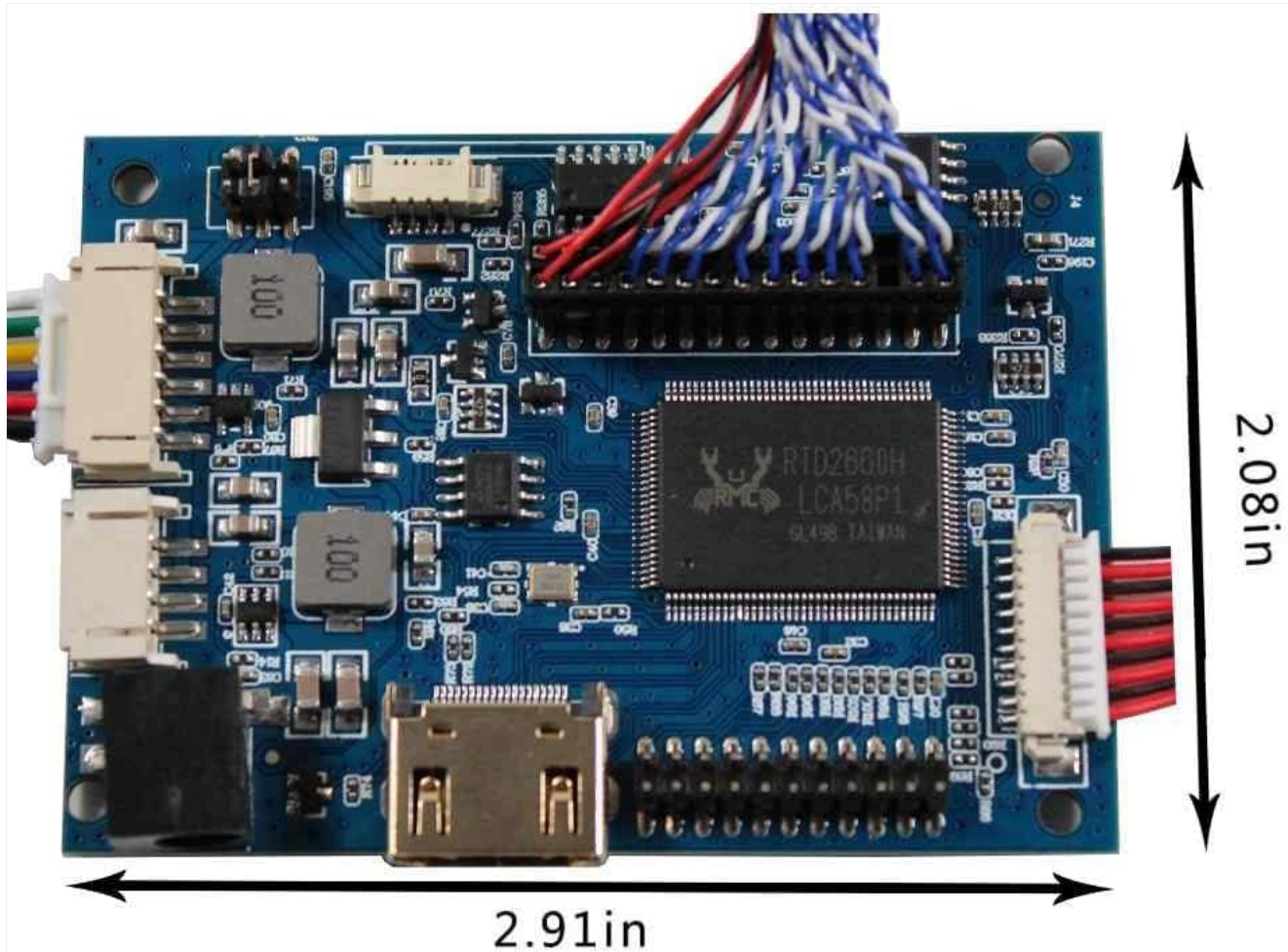


Figure 7.1: Physical dimensions of the VSDISPLAY VS-TY2660H-V661 LCD Controller Board, showing approximate length and width.

8. WARRANTY AND SUPPORT

For warranty information, technical support, or further inquiries regarding your VSDISPLAY LCD Controller Board, please refer to the official VSDISPLAY website or contact their customer service department directly. Keep your purchase receipt for warranty claims.

VSDISPLAY Official Website: [Visit VSDISPLAY Store on Amazon](#)