Kramer VM-4HDT

Kramer VM-4HDT 4K HDBaseT Extender Distributor User Manual

Model: VM-4HDT

1. INTRODUCTION

The Kramer VM-4HDT is a high-performance 4K@60Hz (4:2:0) HDBaseT extender distributor designed to take one HDMI input signal, along with IR and RS-232 control signals, and distribute it to four HDBaseT outputs. This device facilitates long-reach extension of HDMI signals with resolutions up to 4K, making it suitable for various professional AV installations. It is compatible with standard HDBaseT receivers such as the TP-580R.

2. SAFETY INSTRUCTIONS

- Read all instructions carefully before operating the device.
- Do not open the device casing. There are no user-serviceable parts inside.
- Ensure the device is connected to a grounded power outlet.
- Avoid exposing the device to moisture, rain, or extreme temperatures.
- Place the device in a well-ventilated area to prevent overheating.
- Use only the power adapter supplied with the device.

3. PACKAGE CONTENTS

Verify that your package contains the following items:

- Kramer VM-4HDT 4K HDBaseT Extender Distributor unit
- Power adapter
- Rack ears (for rack mounting)
- Quick Start Guide

If any items are missing or damaged, contact your Kramer dealer immediately.

4. PRODUCT OVERVIEW

4.1 Rear Panel Connections

The rear panel of the VM-4HDT provides all necessary connections for input, output, control, and power.

Figure 1: Kramer VM-4HDT Rear Panel Connections

Description of Figure 1: This diagram illustrates the rear panel of the Kramer VM-4HDT. On the left, there is a single HDMI input labeled "IN 1" connected to a Blu-ray Player. To its right, there are four HDMI outputs labeled "OUT 1" through "OUT 4", each connected to a 4K Display. Further to the right, an RS-232 port is shown connected to an RC-43SL Control Keypad. Finally, on the far right, the power input and switch are depicted. This setup demonstrates how the VM-4HDT distributes a single HDMI source to multiple displays and integrates with an RS-232 control system.

- **HDMI IN 1:** Connect your HDMI source device (e.g., Blu-ray player, media server) to this input.

- **HDMI OUT 1-4:** Connect up to four HDBaseT receivers (not included) to these outputs. Each output extends the HDMI signal to a connected display.

- **RS-232:** Serial control port for connecting to a control system (e.g., Kramer RC-43SL Control Keypad) for remote management.

- **Power Input:** Connect the supplied power adapter here.

- **Power Switch:** Toggles the device power on or off.

5. SETUP

1. **Power Off All Devices:** Before making any connections, ensure all devices (source, displays, VM-4HDT) are powered off and unplugged.

2. **Connect HDMI Source:** Connect your HDMI source device to the **HDMI IN 1** port on the VM-4HDT using a high-quality HDMI cable.

3. **Connect HDBaseT Receivers:** Connect up to four HDBaseT receivers (not included) to the **HDMI OUT 1-4** ports on the VM-4HDT using Cat5e/6/7 twisted-pair cables. Ensure the cables are properly terminated.

4. **Connect Displays:** Connect each HDBaseT receiver to its respective display (e.g., 4K TV, projector) using an HDMI cable.

5. **Connect Control System (Optional):** If using an external control system, connect it to the **RS-232** port on the

VM-4HDT.

6. **Connect Power:** Plug the supplied power adapter into the VM-4HDT's power input, then plug the adapter into a grounded AC outlet.

7. **Power On Devices:** Power on the VM-4HDT, then your displays, and finally your HDMI source device.

6. OPERATING

Once all connections are made and devices are powered on, the VM-4HDT will automatically detect the input signal and distribute it to all connected HDBaseT receivers and their respective displays.

- **Signal Distribution:** The VM-4HDT acts as a 1:4 distributor, sending the single HDMI input to all four HDBaseT outputs simultaneously.

- **EDID Management:** The device features Kramer's I-EDIDPro™ Intelligent EDID Processing™ to ensure proper communication between the source and displays, optimizing video resolution and audio formats.

- **Control:** If an RS-232 control system is connected, you can manage the VM-4HDT and potentially other connected Kramer devices via serial commands. Refer to the Kramer website for detailed RS-232 command protocols.

- **LED Indicators:** Observe the LED indicators on the front panel (if present, or rear panel as per image) for status of HDMI and HDBaseT input/output connections and power.

7. MAINTENANCE

- **Cleaning:** Disconnect power before cleaning. Use a soft, dry cloth to wipe the exterior of the device. Do not use liquid or aerosol cleaners.

- **Ventilation:** Ensure that the ventilation openings are not blocked. Maintain adequate airflow around the device.

- **Firmware Updates:** Periodically check the Kramer Electronics website for any available firmware updates for your VM-4HDT model. Follow the instructions provided with the update carefully.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
No video output on display.	Incorrect cable connection; Power issue; EDID conflict; Incompatible HDBaseT receiver.	Check all HDMI and Cat cable connections. Ensure the VM-4HDT and all connected devices are powered on. Verify the HDBaseT receiver is compatible and properly configured. Try power cycling all devices.
Poor video quality or flickering.	Long cable run exceeding limits; Low-quality cables; Interference.	Ensure Cat cable length is within specified limits (e.g., 40m for 4K@60Hz). Use high-quality, certified Cat6a/7 cables. Check for sources of electromagnetic interference.
No control via RS-232.	Incorrect cable wiring; Incorrect serial port settings; Control system issue.	Verify RS-232 cable pinout and connection. Check baud rate, data bits, parity, and stop bits settings on the control system. Consult the Kramer website for RS-232 command documentation.

9. SPECIFICATIONS

Feature	Detail
Model Number	VM-4HDT (Item model number: 10-80359090)
Input	1 x HDMI
Outputs	4 x HDBaseT (RJ-45)
Max Resolution	4K@60Hz (4:2:0) 24bpp
Max Extension Distance	Up to 40m (130ft) for 4K@60Hz (4:2:0)
Compliance	HDMI 2.0, HDCP 1.4
Control Ports	RS-232
Dimensions (L x W x H)	4.8 x 17 x 6.2 inches
Item Weight	2.14 pounds
Manufacturer	Kramer Electronics LTD

10. WARRANTY

For detailed warranty information regarding your Kramer VM-4HDT, please refer to the official Kramer Electronics website or the warranty card included with your product. Warranty terms and conditions may vary by region and product type.

11. SUPPORT

If you encounter any issues or require technical assistance with your Kramer VM-4HDT, please visit the official Kramer Electronics support website for FAQs, troubleshooting guides, and contact information for customer service. You can typically find support resources at: www.kramerav.com/support