

LILLIPUT MV0430

LILLIPUT AVMATRIX MV0430 3G-SDI Quad Split Multiviewer User Manual

Model: MV0430

Brand: LILLIPUT

1. INTRODUCTION

The LILLIPUT AVMATRIX MV0430 is a versatile device designed for professional video applications. It functions as a 3G-SDI Quad Split Multiviewer, a 3G-SDI to HDMI signal converter, a 1x2 SDI distribution amplifier, and a 4x1 3G-SDI switcher. This manual provides instructions for the proper setup, operation, and maintenance of the MV0430.

The MV0430 supports up/down scaling and frame rate conversion for SDI and HDMI outputs, offering flexibility in various production environments. Configuration is managed through built-in DIP switches, a USB keyboard, or a PC via LAN.

2. KEY FEATURES

- 4x SD/HD/3G-SDI inputs with automatic detection.
- 2x SD/HD/3G-SDI and 1x HDMI outputs for multi-view display.
- 11 selectable SDI & HDMI output formats (e.g., 720p25 to 1080p60).
- Up/down scaling and frame rate conversion capabilities.
- 16 preset layouts for full-screen and multi-view modes.
- 11-character UMD overlay with customizable position and color.
- Audio level meter overlay with customizable position.
- Control via DIP switches, USB keyboard, or LAN port.
- Threaded locking power connector for secure power supply.
- Detachable bracket design for flexible wall mounting.

3. PRODUCT OVERVIEW

3.1 Front and Rear Panel Layout

The MV0430 features clearly labeled input and output ports, along with control interfaces for easy setup and operation.

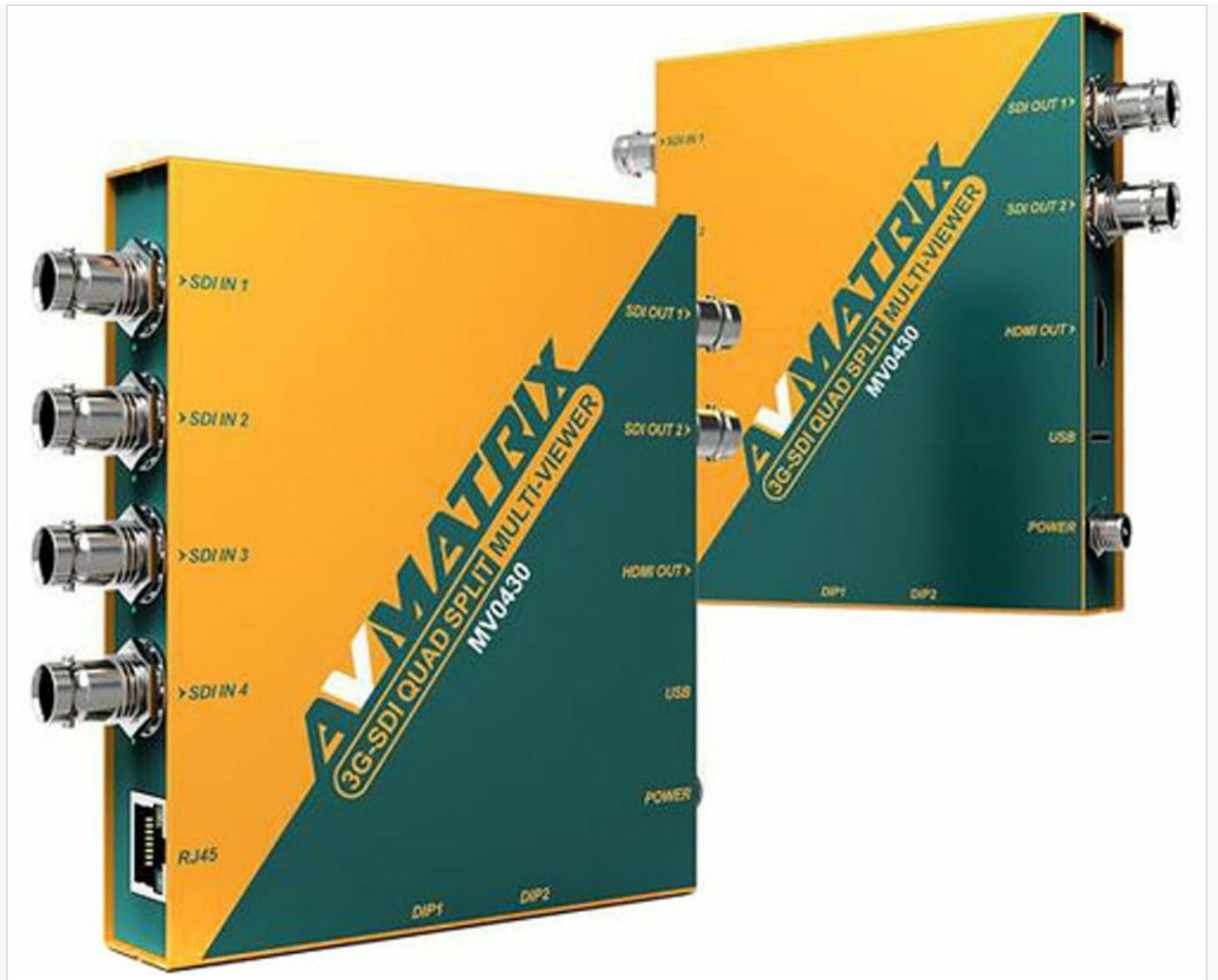


Figure 1: Front and Rear Panel Overview of the MV0430. This image displays the layout of all input and output connectors, including four SDI inputs, two SDI outputs, one HDMI output, USB port, LAN port, power input, and two sets of DIP switches (DIP1 and DIP2).

3.2 Side Panel and DIP Switches

The side panel houses the DIP switches, which are crucial for initial configuration and mode selection.

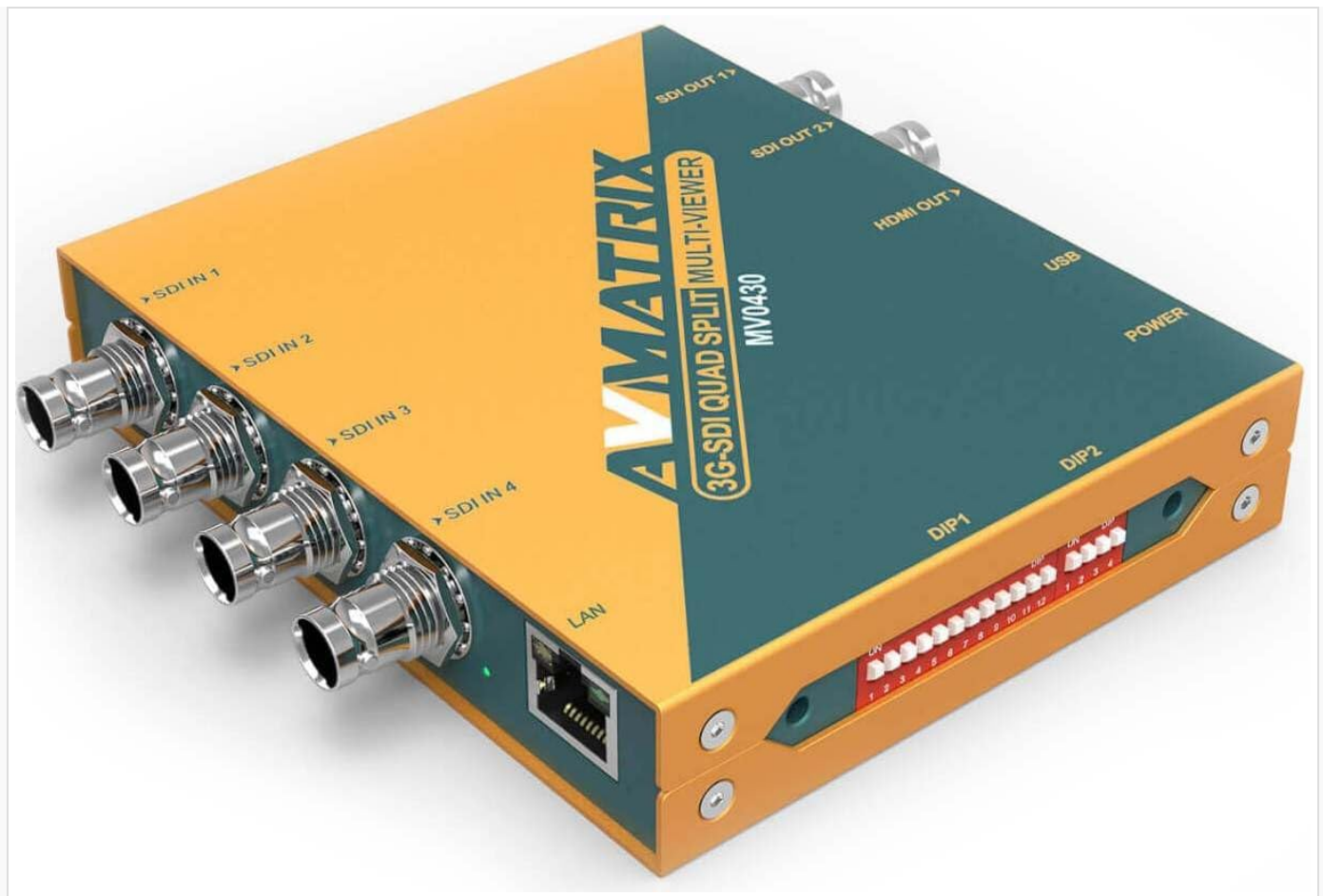


Figure 2: Side View Highlighting DIP Switches. This image provides an angled perspective of the MV0430, clearly showing the two banks of DIP switches (DIP1 and DIP2) located on the side of the unit, used for various settings and configurations.

3.3 Output Ports

The MV0430 provides multiple output options for monitoring and distribution.

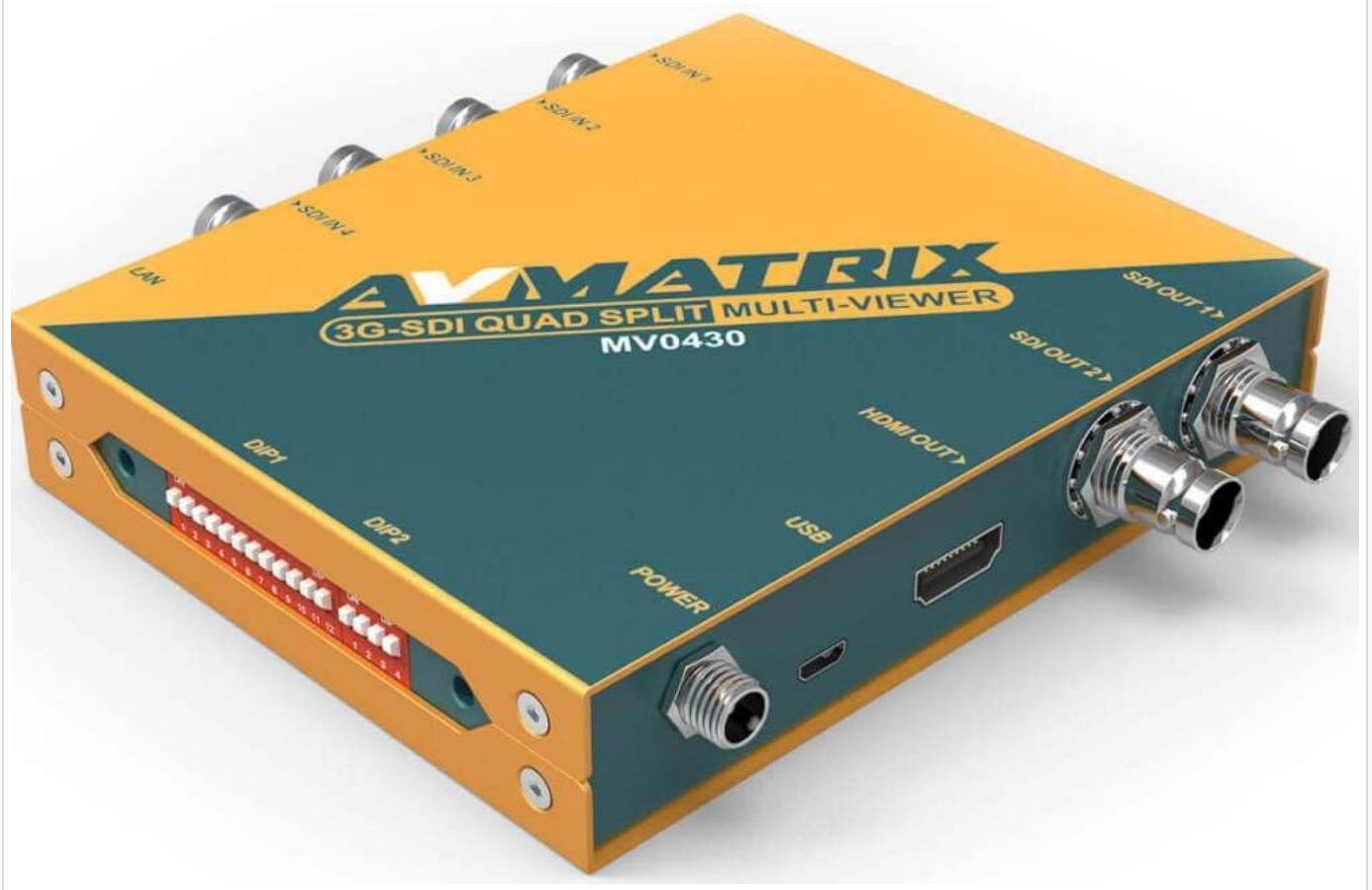


Figure 3: Output Port Details. This image shows a close-up, angled view of the MV0430's output section, detailing the SDI OUT 1, SDI OUT 2, and HDMI OUT connectors, which provide the processed video signals.

3.4 Mounting Options

The detachable bracket design allows for flexible installation, such as wall mounting.



Figure 4: Mounting Bracket Configuration. This image illustrates the MV0430 with its detachable mounting brackets installed, demonstrating how the unit can be secured for various installations, including wall mounting.

4. SETUP

4.1 Power Connection

Connect the provided power adapter to the threaded locking power connector on the MV0430. Ensure the connection is secure to prevent accidental disconnection.

4.2 Input Connections

Connect your SD/HD/3G-SDI sources to the SDI IN 1, SDI IN 2, SDI IN 3, and SDI IN 4 ports. The device features auto-detection for input signals.

4.3 Output Connections

Connect your display or recording devices to the SDI OUT 1, SDI OUT 2, and HDMI OUT ports. These outputs will carry the processed video signals based on the selected operating mode.

4.4 Control Connections

- **USB:** Connect a USB keyboard for direct control and configuration of the unit.
- **LAN:** Connect an Ethernet cable to the LAN port for PC control and firmware updates.

5. OPERATING MODES

The MV0430 supports multiple operational modes, configurable via DIP switches, USB keyboard, or LAN.

5.1 Quad Split Multiviewer

In this mode, the MV0430 can display up to four SDI input signals simultaneously on a single screen (via SDI or HDMI output). There are 16 preset layouts available, supporting various combinations of full-screen and multi-view displays.

5.2 3G-SDI to HDMI Signal Converter

The device can convert an SDI input signal to an HDMI output signal. This is useful for connecting SDI sources to HDMI displays.

5.3 1x2 SDI Distribution Amplifier

The MV0430 can take a single SDI input and distribute it to two SDI outputs and one HDMI output, effectively acting as a signal splitter and amplifier.

5.4 4x1 3G-SDI Switcher

Functioning as a switcher, the MV0430 allows selection of one of the four SDI inputs to be routed to the SDI and HDMI outputs.

5.5 Output Format Selection

The MV0430 supports 11 selectable SDI and HDMI output formats, ranging from 720p25 to 1080p60. Up/down scaling and frame rate conversion are automatically applied based on the selected output format.

6. CONFIGURATION

6.1 DIP Switch Settings

The DIP switches (DIP1 and DIP2) on the side panel are used for primary configuration, including selecting operating modes, output formats, and other fundamental settings. Refer to the detailed DIP switch configuration table in the full product manual for specific settings.

6.2 USB Keyboard Control

A standard USB keyboard can be connected to the USB port for navigating menus and adjusting settings on an attached display. This provides a direct interface for detailed configuration.

6.3 LAN Control and Firmware Update

The LAN port allows for remote control of the MV0430 via a connected PC. This interface is also used for updating the device's firmware, ensuring access to the latest features and improvements. Consult the official AVMATRIX website for firmware updates and PC control software.

6.4 UMD and Audio Meter Overlay

The MV0430 supports 11-character User-Defined Metadata (UMD) overlay and audio level meter overlay. Both can be customized for position and color to suit monitoring preferences.

7. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the device. Do not use liquid cleaners or solvents.
- **Ventilation:** Ensure the device has adequate ventilation to prevent overheating. Do not block ventilation openings.
- **Firmware Updates:** Regularly check the manufacturer's website for firmware updates to ensure optimal performance and access to new features.
- **Power Supply:** Only use the power adapter supplied with the device.

8. TROUBLESHOOTING

- **No Video Output:**
 - Verify all SDI and HDMI cables are securely connected.
 - Ensure the power adapter is properly connected and the unit is powered on.
 - Check the input signal format and ensure it is supported by the MV0430.
 - Confirm the output format selected via DIP switches or control interface is compatible with your display.
- **Incorrect Multiview Layout:**
 - Review the DIP switch settings for multiview layout selection.
 - If using USB keyboard or LAN control, check the selected layout in the device's menu.
- **Control Issues (USB/LAN):**
 - For USB keyboard, ensure the keyboard is functional and properly connected.
 - For LAN control, verify network connectivity and IP settings. Ensure the correct control software is being used on the PC.
- **Intermittent Signal:**
 - Check cable integrity for both input and output connections.
 - Ensure the power connection is stable and not loose.
 - Verify that the input signal is stable and within specifications.

9. SPECIFICATIONS

The following table details the technical specifications of the AVMATRIX MV0430.

Feature	Description
SDI Video Input	SD/HD/3G-SDI (75Ω) × 4
SDI Video Output	SD/HD/3G-SDI (75Ω) × 2
HDMI Video Output	HDMI type A × 1
SDI Input Format Support	1080p 60/59.94/50/30/29.97/25/24/23.98, 1080PsF 30/29.97/25/24/23.98, 1080i 60/59.94/50, 720p 60/59.94/50/30/29.97/25/24/23.98, 625i 50 PAL, 525i 59.94 NTSC
SDI & HDMI Output Format Support	1080p 60/50/30/25/24, 1080i 60/50, 720p 60/50/30/25
SDI Video Rate	SD/HD/3G-SDI
SDI Compliance	SMPTE 292M/SMPTE 259M/SMPTE 424M
SDI & HDMI Color Space	YUV or RGB for inputs, YUV for outputs
SDI Auto Switching	Auto selects SD, HD and 3G-SDI on input
DIP Switches	Configuration

Feature	Description
LAN Port	Configuration and firmware updates
USB Port	USB keyboard
Dimension (LWD)	125.5 × 104 × 24.5mm
Weight	465g
Power Connector	Threaded locking connector
Power Consumption	6W
Voltage Range	DC 6-24V
Operating Temperature	-20°C~60°C (HDMI output for 0°C~60°C)
Storage Temperature	-30°C~70°C
Relative Humidity	0%~90% non-condensing

Note: Specifications are subject to change without prior notice.

10. WARRANTY AND SUPPORT

Information regarding product warranty and technical support is not provided within this manual. Please refer to the manufacturer's official website or contact your vendor for detailed warranty terms and support options.

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Name

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question