



# OMX-09MXMX0001 MANUAL

## 4X1 HDMI KVM 4K@60HZ 70M EXTENDER SWITCH



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## **Safety Precautions:**

Please read all instructions before installing or operating this equipment and connecting the power supply.

Please keep the following in mind as you unpack and install the unit:

1. To prevent fire or shock hazards, do not expose this equipment to high humidity and/or dust. Do not use in an unprotected outdoor installation nor any area classified as overly damp or wet.
2. The temperature for installation should be kept between -4°F and 140°F (-20°C and 60°C). Avoid direct sunlight exposure or extreme temperature changes over a short period of time.
3. Do not disassemble or place the unit on an unstable base.
4. Do not drop the unit and avoid heavy impacts.
5. This unit should not be permanently installed unless proper ventilation is provided. Any enclosure openings must not be blocked or covered as they protect the unit from overheating.
6. Before cleaning, turn off the power and unplug the unit from all connections. Use a damp cloth. Do not use liquid cleaners or aerosol cleaners.
7. Do not overload outlets and extension cords, as this may result in a risk of fire or electric shock.
8. Never push objects of any kind, including liquids, into this unit through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock.
9. Do not attempt to open or service this unit yourself; opening or removing covers may expose you to dangerous voltage and other hazards.
10. The unit does not contain user-serviceable parts. Contact your authorized dealer or an authorized repair service company if it requires service.

## Introduction:

Ocean Matrix's OMX-09MXMX0001 is a 4-in-1-out Ultra-high-definition KVM extender switch consisting of a transmitter and receiver. It supports 4 switchable HDMI inputs and 1 HDMI output that supports 3840x2160@60Hz HDMI signal and can be extended up to 229ft (70mi) via CAT6/CAT6A/CAT7 network cable. The OMX-09MXMX0001 supports a variety of standard resolutions up to and including 3840x2160@60Hz and supports KVM control. You can easily switch between the content of the 4 HDMI signal sources to the display via IR remote control, front panel switch button, or RS-232. The OMX-09MXMX0001 is ideal for security monitoring, education, training, exhibitions, broadcasting, and command centers.

## In the Box

- Transmitter x1
- Receiver x1
- Power 5V1A x2
- Remote Control x1
- Screw x10
- Grounding Screw x4
- Mounting Bracket x4
- Terminal Block x1
- USB Type A to Type B Cable x4



## Features:

- Supports standard resolutions up to and including 3840x2160@60Hz
- Supports up to 4 HDMI inputs and extends HDMI signal up to 229ft (70m) via CAT6/CAT6A/CAT7
- Multiple switching modes: IR remote control, front panel switch button, RS-232
- Supports KVM control signal passback
- EDID passthrough and auto downscaling
- HDR10 Supported
- Lightning protection, surge protection, ESD protection



## Specifications:

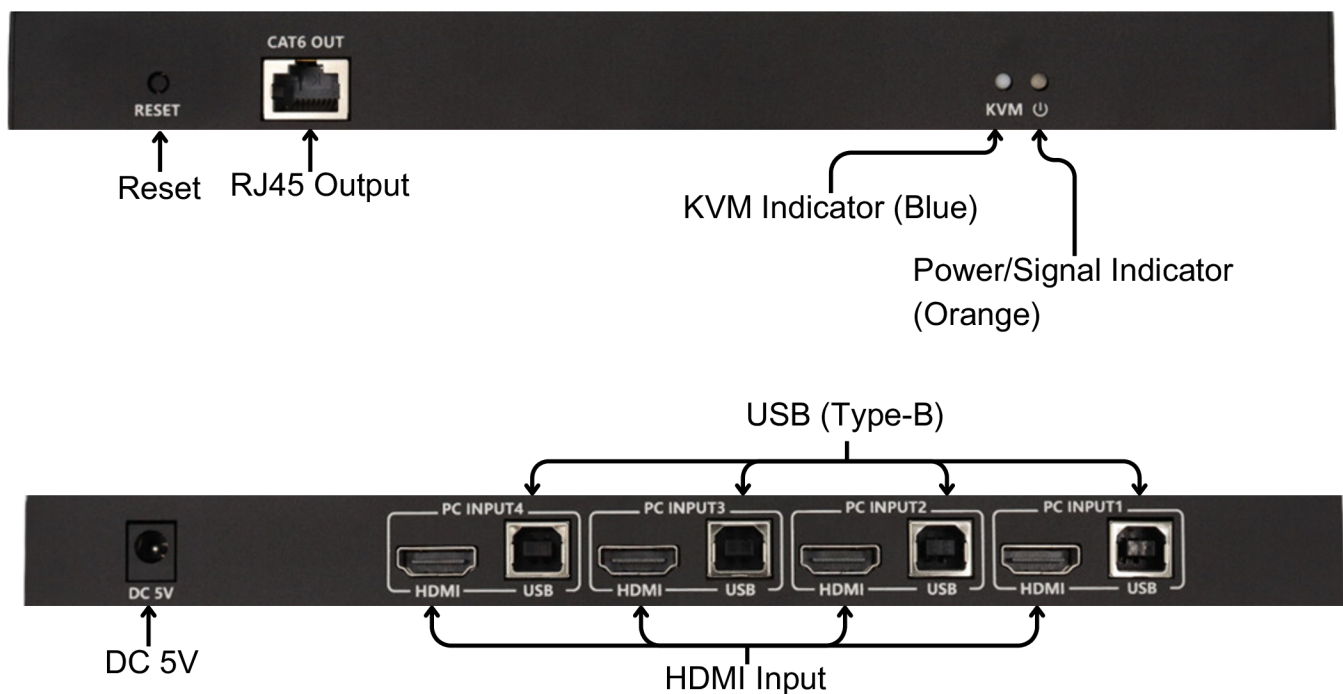
	Item	Specification
<b>Power Supply</b>	Voltage/Current	DC 5V/1A
	Power Consumption	TX <4W RX<4W
<b>HDMI Performance &amp; Interface</b>	HDMI Compliance	HDMI 2.0 (HDR, YUV 4:4:4)
	HDCP Compliance	HDCP 2.2, and HDCP 1.4
	HDMI resolution	480i/p@60Hz, 576i/p@50Hz,720p@50/60Hz, 1080i/p@50/60Hz,3840x2160@24/25/30/50/60Hz, 1280x800,1280x768,1680x1050, 1360x768, 1366x768, 1600x900, 1024x768, 800x600, 2560x1600, 2560x1440, 1920x1200
	Supported Audio Formats	LPCM 7.1/ DTS-HD/ DTS-Audio/ Dolby Digital Plus/ Dolby TrueHD 5.1/ Dolby Digital/ Dolby Atmos
	Transmission Speed	18Gbps
	Video Bandwidth	600MHz
<b>HDMI port</b>	HDMI Input x4	
<b>RJ45 Port</b>	RJ45 Port x1	
<b>RS-232</b>	3 Pin (GND/RxD/TxD), baud rate 9600	
<b>Transmission Distance</b>	CAT6/6A/7	≤ 70m
<b>Protection Level</b>	Electrostatic protection of the whole machine	Electrostatic protection 1a Contact discharge level 2 1b Air discharge level 3 implementation of the standard: IEC61000-4-2 lightning protection, surge protection
<b>Operating Environment</b>	Working Temperature	-4°F to 140°F (-20°C to 60°C)
	Storage Temperature	-22°F to 158°F (-30°C to 70°C)
<b>Body Properties</b>	Dimension (in)	TX: 9.84(L) x 3.14(W) x 0.98(H) RX: 4.17(L) x 4.05(W) x 0.98(H)
	Material	Steel
	Color	Black
	Weight	TX:1.19lbs (542g) RX:0.65lbs (298g)

## Installation Requirements:

- 1.HDMI source device (Game console, Cable Box, PC, etc.)
- 2.HDMI display device (TV, projector with HDMI port)
- 3.HDMI cable: Standard HDMI 2.0 Cable (Supports 4Kx2K@60Hz)
- 4.CAT6/CAT6A/CAT7 cable

## Panel Description:

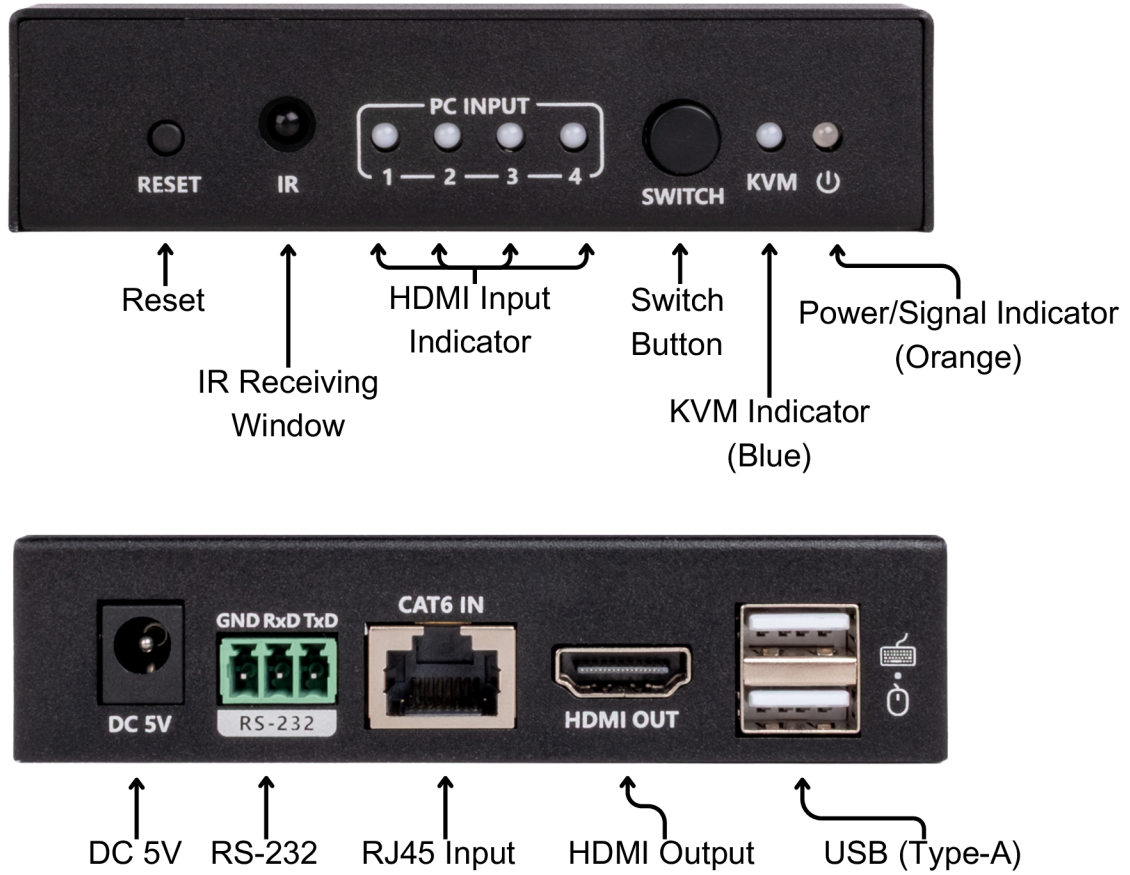
### Transmitter (TX):



KVM Indicator (Blue)	<ul style="list-style-type: none"> <li>-Light Off: the computer and USB port have not established a connection</li> <li>-Steady On: the computer and USB port are connected</li> <li>-Light Flashing: the KVM data is transmitting</li> </ul>
Power/Signal Indicator (Orange)	<ul style="list-style-type: none"> <li>-Light Off: No Power</li> <li>-Slow Flash (Every 1 second): there is power, but no HDMI signal</li> <li>-Quick Flash (Every 200ms): the HDMI signal is connecting</li> <li>-Steady On: The HDMI signal is transmitting</li> </ul>



## Panel Description: Receiver (RX):



KVM indicator (Blue)	Light Off: The keyboard/mouse and the USB port have not established a connection. -Steady On: the keyboard/mouse and the USB port are connected -Light Flashing: the KVM data is transmitting
Power/Signal Indicator (Orange)	-Light Off: No Power -Slow Flash (every 1 second): there is power, but no HDMI Signal -Quick Flash (every 200ms): The HDMI signal is connecting -Steady On: the HDMI signal is transmitting



## Panel Description:

### Remote Control:

\*\*CR2025 Battery not included\*\*

"<" and ">" button to choose channel forward or backward

"1-4" number buttons to choose any source device as you need



## Installation and Connection:

### How to make a network cable, Follow the Standard IEEE-568B:

1-White and Orange

2-Orange

3-White and Green

4-Blue

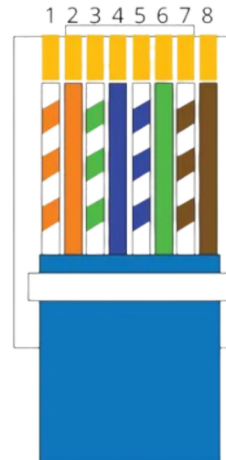
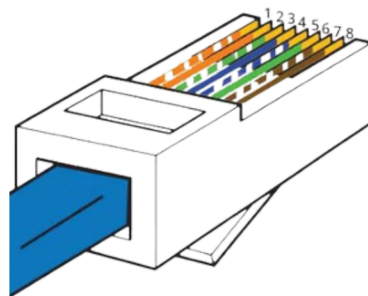
5-White and Blue

6-Green

7-White and Brown

8-Brown

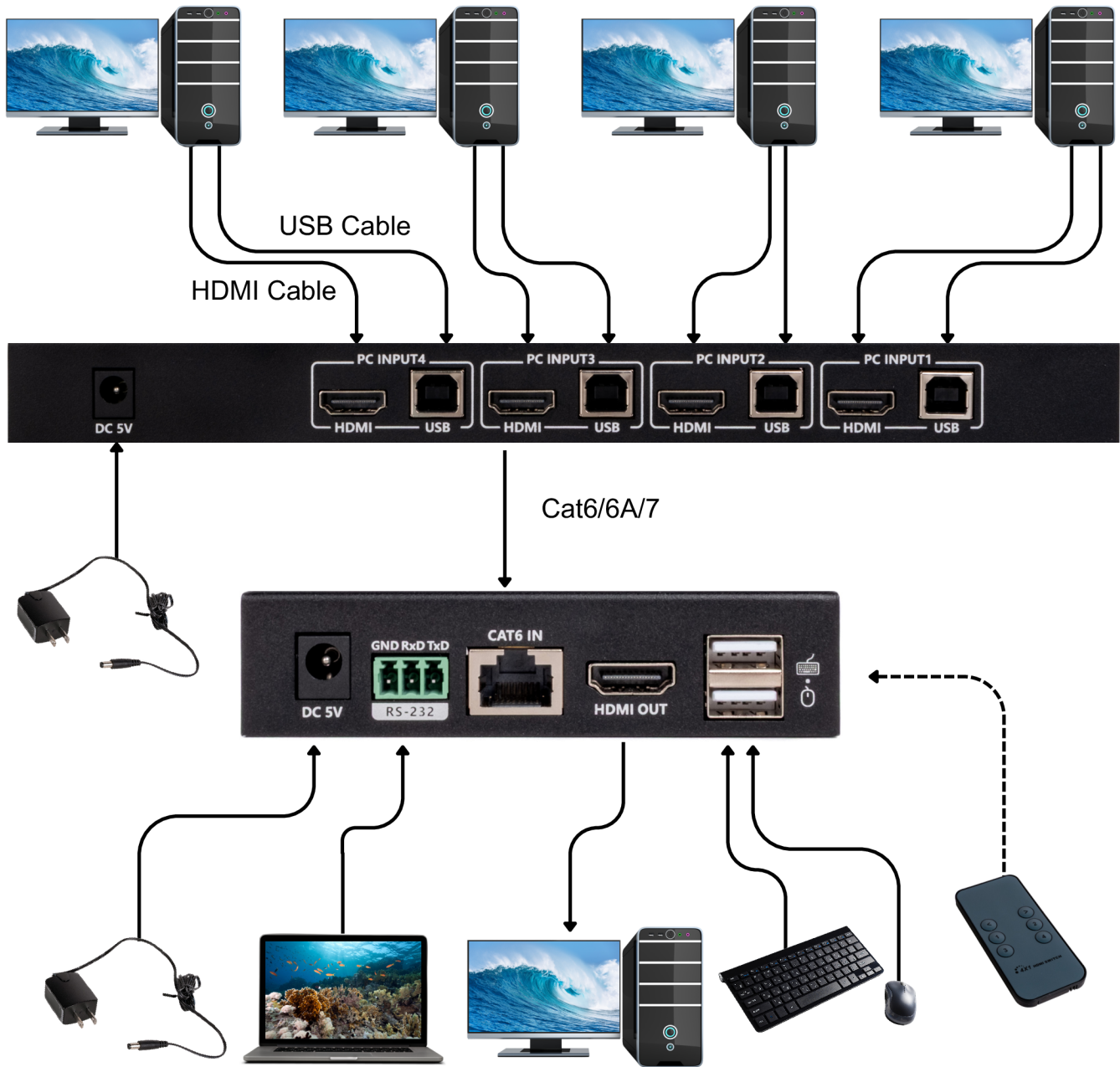
### RJ45 Pinout T-568B



1. White Orange	5. White Blue
2. Orange	6. Green
3. White Green	7. White Brown
4. Blue	8. Brown



## Installation and Connection: Connection Diagram:



## Installation and Connection: Connection Instructions:

1. Connect the source devices to the HDMI input ports with an HDMI cable.
2. Connect the display device to the HDMI output port with an HDMI cable.
3. Connect the transmitter and receiver with CAT6 or higher network cable
4. To use the KVM function, connect the mouse and keyboard to the switch's USB Type-A ports while connecting the computer and the switch with a USB Type-A to Type-B cable.
5. Power on the devices to get started

Note: You can switch the signal source by pressing the switch button or using the remote control.

## Installation and Connection: RS-232 Control:

RS-232 Control

Baud rate:9600

Data bits: 8

Stop Character: 1

Parity: none

Note: When using the SSCOM program you need to use “\n” in the command. If using in PUTTY or TERMITE, remove the “\n” for the command to work.

\n	HDMI 1 Input	HDMI 2 Input	HDMI 3 Input	HDMI 4 Input
<b>PS1XR\n</b>	PS11R	PS12R	PS13R	PS14R
<b>Reset\n</b>	Restart the device			
<b>Recover\n</b>	Restore factory setting			
<b>Status\n</b>	Query for status information displays the current status of HDMI input signal source, such as Status: Baud 9600 PS12R OK			
<b>Baud XX\n</b>	Set baud rate Value: 9600 (default)			

## FAQ:

Q: No Image Output?

A: 1) Check the power supply and make sure the power indicator is on.

2) Check if the HDMI cables are connected well.

3) Ensure the TV has been set up to the right channel or input.

4) Ensure the network cable is properly connected and meets IEEE-568B standards.

5) While connecting with a PC or laptop via HDMI, please ensure the output mode is in mirror or extend.

Q: Is the picture unstable?

A: 1) Ensure all HDMI cables are connected well.

2) To check the picture quality, Connect the source device directly to the display device or switch to another source device.

3) Ensure a high-quality HDMI standard cable for an HDMI 4K signal input is being used.

## Support & Warranty:

Ocean Matrix products are warrantied for one (1) year from the date of purchase, with parts and labor included. Our objective is to maintain engineering excellence and an R&D laboratory dedicated to the latest technology compliance testing. We strive for exceptional quality every day to ensure your confidence in our products and our commitment to your success.

This warranty is limited to defects or failures in hardware workmanship, materials, or functionality and does not cover customer damage, abuse, or unauthorized modification. If this product fails or does not perform as warranted, your recourse shall be repair or replacement. Under no condition shall Ocean Matrix be liable for any damage incurred through the use of this product. This damage includes but is not limited to lost profits, lost savings, or incidental or consequential damage arising from the use of or inability to use this product.

Ocean Matrix specifically disclaims all other warranties, expressed or implied, and the installation or use of this product shall be deemed as an acceptance of these terms by the user. All warranty claims must be submitted with proof of purchase from an authorized distributor or reseller.

Ocean Matrix reserves the right to repair or replace items identified as within warranty. To determine warranty product failures, all warranty repairs must be returned freight prepaid, insured, and inspected before any in-warranty or out-of-warranty repairs occur.