NEXIS

Model : HWM0808

18Gbps 8x8 Seamless UHD Matrix

User Manual

VER 1.0

Thank you for purchasing this product

For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

Surge protection device recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lighting strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

Table of Contents

1. Introduction

The 18Gbps 8x8 seamless UHD Matrix can connect 8 HDMI sources to 8 HDMI displays. Supported video resolution is up to 4K60 4:4:4. The product supports IR matrix, and IR matrix routing follows the video routing. Audio extract and insert are supported. The product supports one or more video wall with RS232 command.

2. Features

☆ HDMI 2.0 and HDCP 2.2 compliant
☆ Support 18 Gbps video bandwidth
☆ Support seamless switching
☆ Support video wall
☆ Support IR matrix
☆ Support HDMI audio extract
☆ Support external L/R audio insert on HDMI stream
☆ Support EDID management
☆ HDMI video output resolution up to 3840x2160@60
☆ Support front panel, RS232, TCP/IP (LAN 10M/100M) control

3. Package Contents

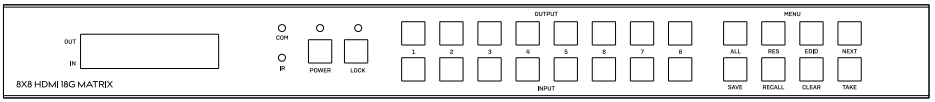
① 1 x 8x8 seamless UHD Matrix
② 1 x AC Power Cord
③ 1 x Matrix IR Remote
④ 4 x IR Receiver cable (1.5 meters)
⑤ 4 x IR Blaster cable (1.5 meters)
⑥ 1× CAT6 cable
⑦1× USB to RS232 Cable
⑧ 1× User Manual

4. Specifications

Technical	
HDMI Compliance	HDMI2.0
HDCP Compliance	HDCP2.2
Bandwidth	18Gbps
Video Resolution	
Input	800x600@60Hz,1024x768@60Hz, 1280x768@60Hz,1280x800@60Hz, 1280x1024@60Hz,1360x768@60Hz, 1366x768@60Hz,1400x1050@60Hz, 1440x900@60Hz,1600x1200@60Hz, 1680x1050@60Hz, 1920x1200@60Hz. 480p,576p,720p,1920x1080i,1920x1080p, 3840x2160@24Hz/25Hz/30Hz/50Hz/60Hz, 4096x2160@24Hz/25Hz/30Hz/50Hz/60Hz.
Output	1920x1080@60Hz, 3840x2160@30Hz, 3840x2160@60Hz, 1280x720@60Hz, 1024x768@60Hz, 1360x768@60Hz, 1600x1200@60Hz, 1920x1200@60Hz
HDMI Amplitude	T.M.D.S +/- 0.4Vpp
Differential impedance	100±15ohm
ESD Protection	Human-body Model: ±8kV (Air-gap discharge) , ±4kV (Contact discharge)
RS232/Ethernet Control	
Baud rate and protocol	Baud rate: 9600, data bit: 8, stop bit: 1, no parity checking
Ethernet	IE10.0+, HTML5
Mechanical	
Housing	Metal Enclosure
Color	Black
Dimensions	430mm (L) X 300mm (W) X 44mm (H)
Weight	5kg
Power Supply	AC 110 - 240V
Power Consumption	100W (Max)
Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F
Storage Temperature	-20°C ~ 70°C / -4°F ~ 158°F
Relative Humidity	10%~50% RH (non-condensing)

5. Operation Controls and Functions

Front Panel



Item	Description
LCD Panel	Displays the current video selections
COM	Control comands indicator
IR	IR signal indicator
POWER	Power LED
LOCK	Front panel lock/unlock
OUTPUT	Output selection buttons 1~8
INPUT	Input selection buttons 1~8
ALL	Set all outputs to the next input selection
RES	Set the output scaler resolution
EDID	Set the EDID options for the next input selection
NEXT	Select the next available option
SAVE	Save the current matrix setting as a preset
RECALL	Set the matrix setting from a saved preset
CLEAR	Cancel the current command function
ENTER	Set the displayed option

- Press buttons OUTPUT n + INPUT m+ TAKE by sequence to switch matrix routing.
- Press button POWER to make the matrix enter or release standby state. When standby, the power LED will be lighted.
- Press button LOCK to lock or un-lock front buttons. When locked, the Lock LED will be lit.
- Press buttons ALL + INPUT m + TAKE by sequence to switch input m to all the outputs.
- Press button SAVE + OUTPUT n to save current routing scene as scene n. Up to 8 scenes can be saved.
- Press button RECALL + OUTPUT n to recall routing scene n as current routing.
- Press buttons RES + OUTPUT n + NEXT + TAKE to change output resolution of OUTPUT n port.

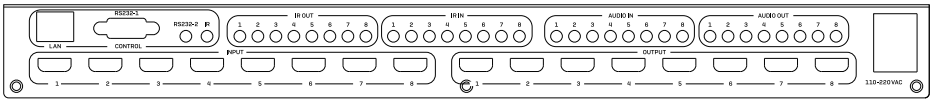
Resolution Option

Number	Output Resolution Setting	Number	Output Resolution Setting
1	3840x2160@60Hz	9	1400x1050@60Hz
2	3840x2160@50Hz	10	1366x768@60Hz
3	3840x2160@30Hz	11	1360x768@60Hz
4	3840x2160@25Hz	12	1280x1024@60Hz
5	1920x1200@60Hz	13	1280x768@60Hz
6	1920x1080@60Hz	14	1280x720@60Hz
7	1920x1080@50Hz	15	1280x720@50Hz
8	1600x1200@60Hz	16	1024x768@60Hz

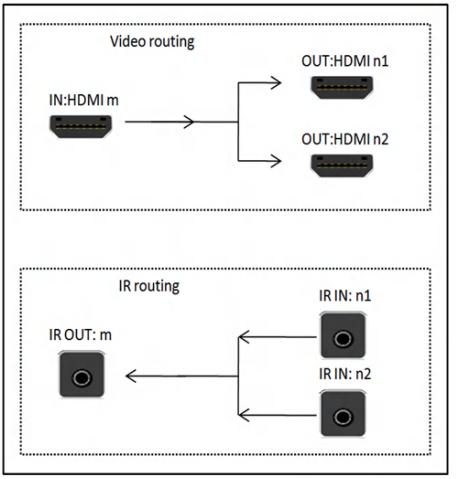
- Press buttons EDID + INPUT m + NEXT + TAKE to change the EDID mode of port INPUT m.
  EDID options:

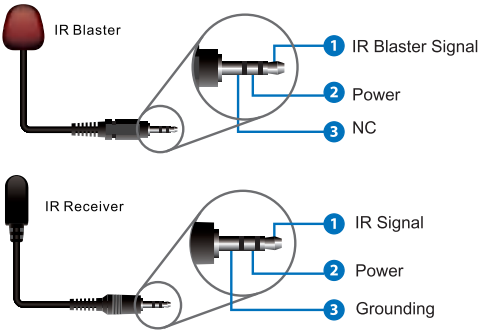
Number	Output Resolution Setting	Number	Output Resolution Setting
1	Manual	5	1920x1080@60Hz
2	3840x2160@60Hz	6	1280x1024@60Hz
3	3840x2160@30Hz	7	1280x720@60Hz
4	1920x1200@60Hz	8	1024x768@60Hz

Rear Panel



- LAN(10M/100M), RS232 are for PC control.
- Analog Audio IN/OUT ports bind to corresponding HDMI ports.
  For example:
  if INPUT HDMI 1 signal is DVI, matrix will use analog AUDIO IN 1 as HDMI 1 audio source
  (Note: Analog AUDIO IN is only available when the corresponding video input is DVI signal).
  Analog AUDIO OUT n will always output the same audio content with HDMI OUTPUT n.
- IR IN and IR OUT
  IR IN/OUT is for remote control routing, and follows the video routing.
  For example:
  if input HDMI m is routed to output HDMI n1 and n2 ports, then IR IN n1 and n2 ports will be routed to IR OUT m port.
  Here with is the illustration of the relationship between video and IR routing.





IR extender connectors (not as accessories)

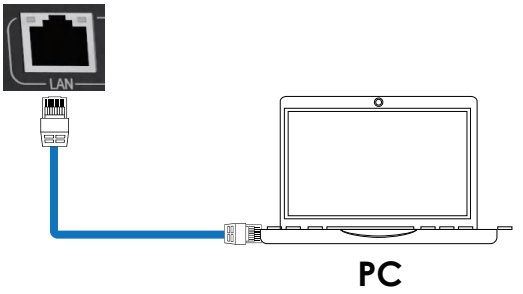
6. RS232/LAN Control Connection

6.1 RS232 Control Connection

The product supports RS232 control. Connect the RS232 port of the product to a PC via a RS-232 to USB cable, as shown in the following figure:

6.2 Network Control Connection

The product also supports Network control. Connect the LAN port of the product to a PC via an UTP cable, as shown in the following figure:



Note: Factory default network setting:

IP Type	Static IP
Static IP	192 . 168 . 0 . 247
Subnet Mask	255 . 255 . 255 . 0
Gateway	192 . 168 . 0 . 1