OMX-10HMIP0002 Transmitter
OMX-11IPHM0002 Receiver
H.264 1080p/60 HDMI Over IP Extender with PoE, RS-232, IR

INSTALLATION & SPECIFICATIONS

OMX-10HMIP0002 Transmitter

Transmitter Kit Includes:
- One Transmitter
- One 5VDC/1A Power Adapter
- One IR Transmitter Cable
- One IR Blaster Extension Cable
- Remote Control
- Two Mounting Brackets & Screws
- One Phoenix Plug
- Set Up and Installation CD

OMX-11IPHM0002 Receiver

Receiver Kit Includes:
- One Receiver
- One 5VDC/1A Power Adapter
- One IR Receiver Cable,
- One IR Blaster Extension Cable
- Remote Control
- Two Mounting Brackets & Screws
- One Phoenix Plug
- Set Up and Installation CD

OMX-10HMIP0002 TRANSMITTER

1	RS232 Port
2	IR Ext
3	Channel Group ID
4	Channel Down
5	Channel Up
6	Reset Button
7	Power Input
8	LED Indicators: Green—Data Status / Red—Power On
9	HDMI Output
10	HDMI Input
11	CAT5e/6 I/O
12	IR-TX

OMX-11IPHM0002 RECEIVER

1	RS232 Port
2	IR Ext
3	Channel Group ID
4	Channel Down
5	Channel Up
6	Reset Button
7	Power Input
8	LED Indicators: Green—Data Status / Red—Power On
9	HDMI Output
10	CAT5e/6 I/O
11	IR-RX

SPECIFICATIONS	
Protocol	H.264 Encoder over TCP/IP
Compliance	HDMI, HDCP
Audio Format	LPCM, Audio sampling rate 48KHZ
Transmission Distance	394 feet/120m over Cat5e/6
IR Frequency	38-56kHz
Streaming Bit Rate	15Mbps

SPECIFICATIONS	
Default Baud Rate	2400bps
Supports	IGMP, DHCP
Input Voltage	5VDC@1A
Enclosure	Black Powder-Coated Steel
Dimensions Each Unit (LxWxH)	4 3/4 x 3 1/8 x 1 1/8 inches
Weight Each Unit	9.88 oz

Ocean Matrix OMX-10HMIP0002 & OMX-11IPHM0002 Installation

INPUT RESOLUTION	
50Hz	576i/576P/720P/1080P/1080i
60Hz/59.94Hz	480i/480p/720p/1080p
30Hz/29.97Hz	1080P
24Hz	1080P
25Hz	1080P
VESA 60Hz	640x480/800x600/1024x768/1280x768/1280x960/1280x1024/1680x1050/1920x1080/1280x720/1360x768/1400x1050

CONFIGURATION—Refer to instructions on the included CD

1. When connecting a point-to-point application there is no need to configure the transmitter nor the receiver.
2. To configure point-to-many, many-to-point, or many-to-many, ensure each transmitter and receiver has a unique IP and MAC address and that each transmitter has a unique group ID number using the **IPTV Control Center Program GUI** on the CD.
3. This extender system has been assigned a unique default MAC address for each transmitter and receiver, so there is no need to set the MAC for each unit. You will need to set the IP address and Group ID.

SETTING THE IP ADDRESS—Refer to instructions on the included CD

1. **DHCP (Dynamic host configuration)**: When using a DHCP switch, enable DHCP so that the switch assigns a unique IP for the transmitter and receiver. Don't change the IP for the units manually.

2. **Set the IP Via Web Browser**: When using a switch that doesn't support DHCP, change the default IP manually:
   - Transmitter: 192.168.1.11
   - Receiver: 192.168.1.12

INSTALLATION—Refer to instructions on the included CD

1. Use an Ethernet cable to connect the PC and the extender.
   - Ensure that the transmitter and the PC are in the same domain.
   - The IP address of the PC should be different from the IP address of the transmitter and receiver
   - Access the Network Setting Control Panel in Windows to change the IP address to 192.168.1.1
   - Press "OK" to save the configuration.

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Ocean Matrix OMX-10HMIP0002 & OMX-11IPHM0002 Installation

INSTALLATION—Refer to instructions on the included CD

2. Login into a Browser:
    - 192.168.1.11 (TX default IP) or 192.168.1.12(RX default IP)
    - Setup IP address for the TX and RX. TX requires user name: admin and password: admin
    - Setup a unique IP address for each TX and each RX, IP: 192.168.1.XX (XX:1-255)
    - IP addresses for each TX and RX must be different and can't be the same as the PC's address.

3. After selecting "Use DHCP" or reset the IP Address, click "Submit" (transmitter) or "update DHCP" (receiver).

4. Click 'Reboot'

5. Wait 30 to 60 seconds and restart the extender.

6. Setting the Group ID and Baud Rate Using the Remote Control
    - Factory Reset: When the Channel LED displays 00 on each unit, press the G/B button on the remote control to select Group ID or Baud Rate. Press the Factory Reset.
    - Choose Group ID 00-63: press the G/B button to switch to Group ID mode and press + or—on the control to change to the previous or the next Group ID or press the numbers.
    - Choose the Baud Rate: press the G/B button to switch to Baud Rate mode and press + or—on the control to change the Baud Rate.

F0	2400 default	F4	28800
F1	4800	F5	38400
F2	9600	F6	57600
F3	19200	F7	115200

    - Choosing the Source
      As an example, if the connection is:

      > Source (DVD1) - TX (TX1) - Gigabit Switch – RX (RX1) - TV1
      > Source (DVD2) - TX (TX2) - Gigabit Switch – RX (RX2) - TV2
      > Source (DVD3) - TX (TX3) - Gigabit Switch – RX (RX3) - TV3

      The group ID of the transmitters is: TX1 (01), TX2 (02), TX3 (03)
      If you need to display Source on TV1, then set the Group ID of RX1 the same as TX1.

7. Setting the Group ID and Baud Rate Using a Browser
    - Use an Ethernet cable to connect the PC and the extender.
    - Ensure that the transmitter and the PC are in the same domain.
    - Connect the TX or TX with the 5VDC/1A power supply
    - Login in IE: 192.168.1.11 (TX default IP) or 192.168.1.12(RX default IP)
    - TX requires user name: admin and password: admin
    - Change Group ID at 'Stream Setting'. Choose 00-63.
    - Click 'Submit' (transmitter) or 'Update' (receiver).
    - Setting the Baud Rate—Login in IE: 192.168.1.11 (TX default IP) or 192.168.1.12(RX default IP). See baud rates above. Default baud rate is 2400.
    - RS232 devices—the transmitter and the receiver must have the same baud rate as the RS232 device.
    - When you change the baud rate using the Remote Control and through the Web Browser, the last change will be used by the transmitter and receiver.
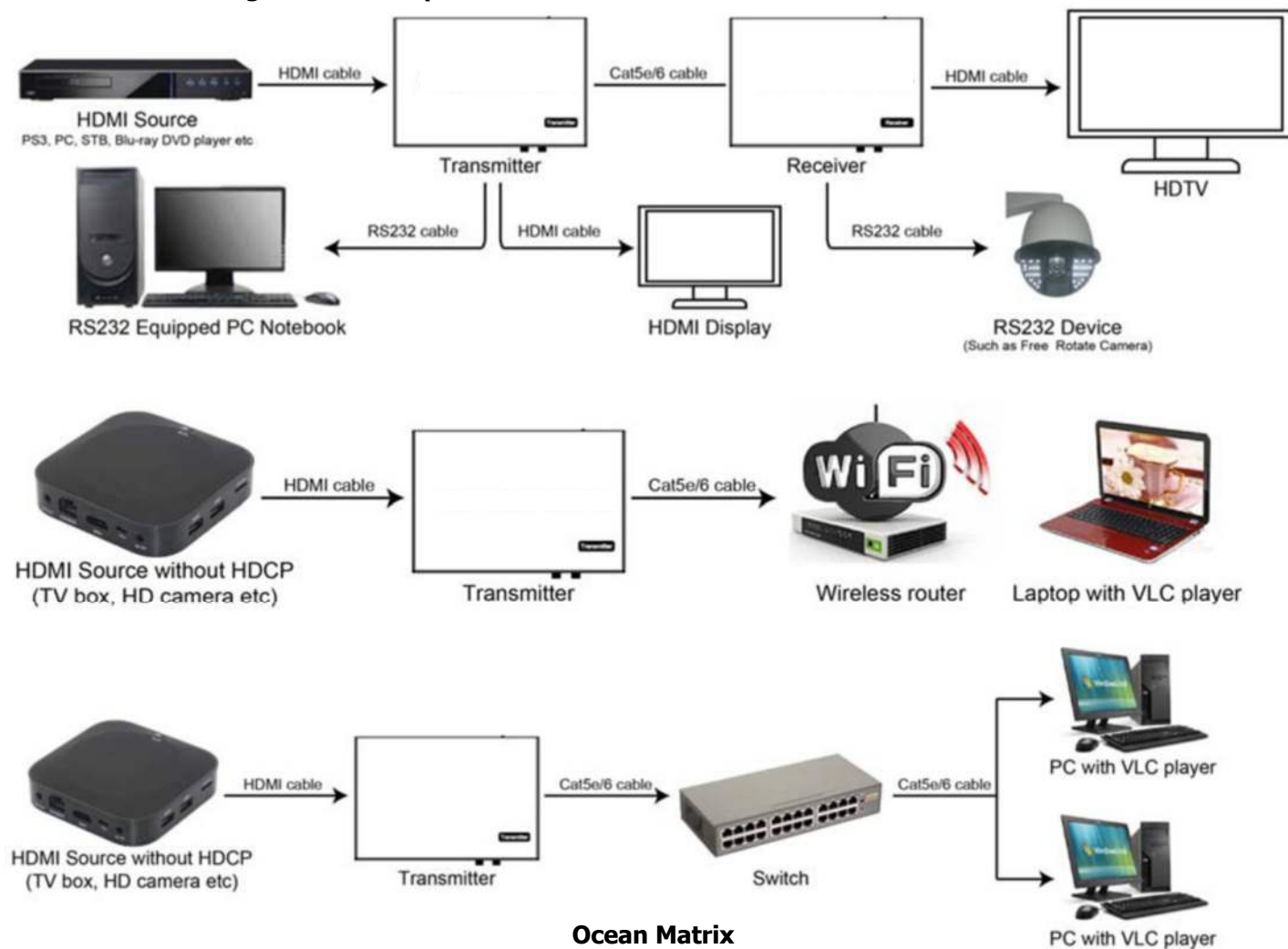
PREPARING THE SWITCH—Refer to instructions on the included CD

1. A switch is required when connecting point-to-many, many-to-point, or many-to-many.
2. If the switch supports IGMP to manage Group ID and DHCP to assign IP addresses to TX and RX automatically then enable the DHCP switch —see SETTING THE IP ADDRESS on page 3).
3. If the switch does not support DHCP, include a DHCP device such as a router to the network/ethernet setup.

POINT-TO-POINT CONNECTION—Refer to instructions on the included CD

1. Connect cable ONLY when power is OFF.
2. Connect the source and the TX using HDMI cable.
3. Connect the HDMI looping output of the TX to the local HDMI display.
4. Connect another HDMI display to the HDMI RX using HDMI cable.
5. Connect the TX and the RX with Cat5e/6 cable.
6. Connect the IR TX cable to the IR TX port on the transmitter.
7. Connect the IR RX cable to the IR RX port on the receiver to control the source at the RX end.
8. Connect one RS232 cable from the PC or system to the RS232 port on the TX.
9. Connect one RS232 cable from the RX to the RS232 device to be controlled.
10. Plug in the included power supplies to turn on the TX and RX.

Point to Point Configuration Examples

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POINT-TO-MANY CONNECTION—Refer to instructions on the included CD

1. Set the IP addresses for the transmitter and the receiver and prepare the switch as instructed previously.
2. Connect the source device and the TX using HDMI cable.
3. Connect the HDMI looping output of the TX to the local HDMI display.
4. Connect the TXs and the switch/router using CAT5e/6 cable.
5. Connect the HDMI displays and the HDMI RXs using HDMI cable.
6. Connect the IR TX cable to the IR TX port on the transmitter.
7. Connect the IR RX cable to the IR RX port on the receiver to control the source at the RX end.
8. Connect one RS232 cable from the PC or system to the RS232 port on the TX.
9. Connect one RS232 cable from the RX to the RS232 device to be controlled.
10. Turn the TX and the RX on using the included power supplies.
11. Notes
    - Daisy chain the switch if more RJ45 ports are needed
    - You can add up to 255 receivers

Point to Many Configuration Example
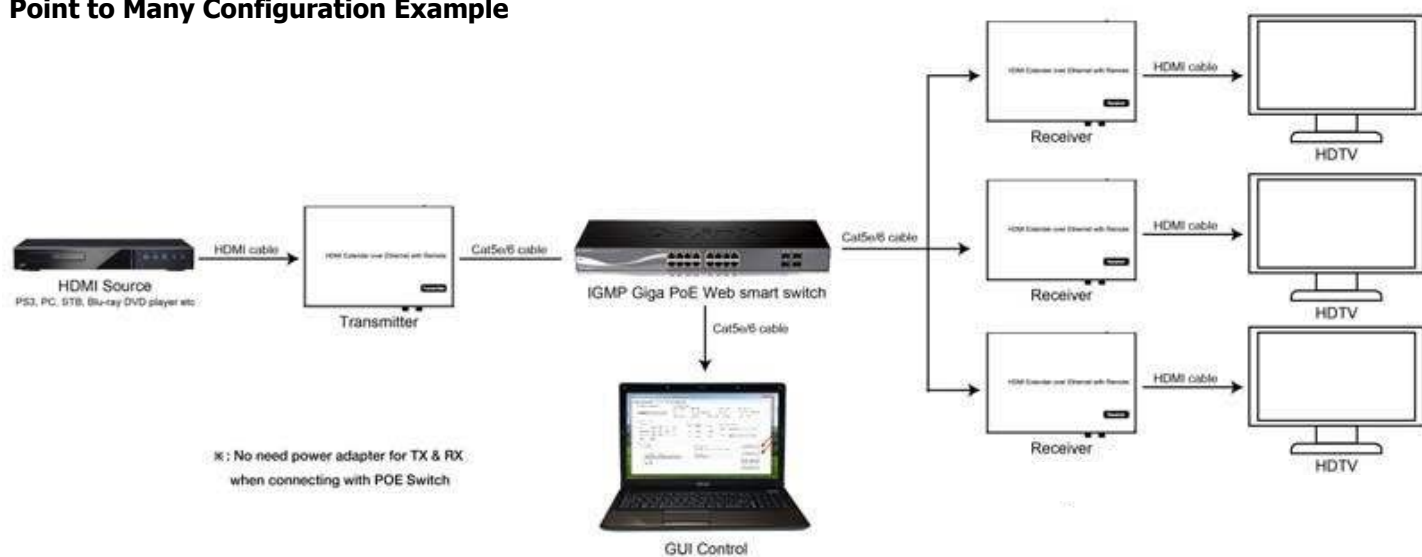
**MANY-TO-MANY CONNECTION—Refer to instructions on the included CD**

1. Set the IP addresses for the transmitter and the receiver and prepare the switch as instructed previously.
2. Connect the source device and the TX using HDMI cable.
3. Connect the HDMI looping output of the TX to the local HDMI display.
4. Connect the TXs and the switch/router using CAT5e/6 cable.
5. Connect the RXs and the switch/router using CAT5e/6 cable
6. Connect the HDMI displays and the HDMI RXs using HDMI cable.
7. Connect the IR TX cable to the IR TX port on the transmitter.
8. Connect the IR RX cable to the IR RX port on the receiver to control the source at the RX end.

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MANY-TO-MANY CONNECTION—Refer to instructions on the included CD

9. Connect one RS232 cable from the PC or system to the RS232 port on the TX.

10. Connect one RS232 cable from the RX to the RS232 device to be controlled.

11. Turn the TX and the RX on using the included power supplies.

12. Choose the source with the Remote Contol or Web Browser (see previous instructions)

13. Notes

- Daisy chain the switch if more RJ45 ports are needed
- You can add up to 64 transmitters
- The total quantity of transmitters and receivers cannot exceed 255

Many to Many Configuration Example

There is no need to use a power adapter for the TX and RX when connecting with a PoE Switch.
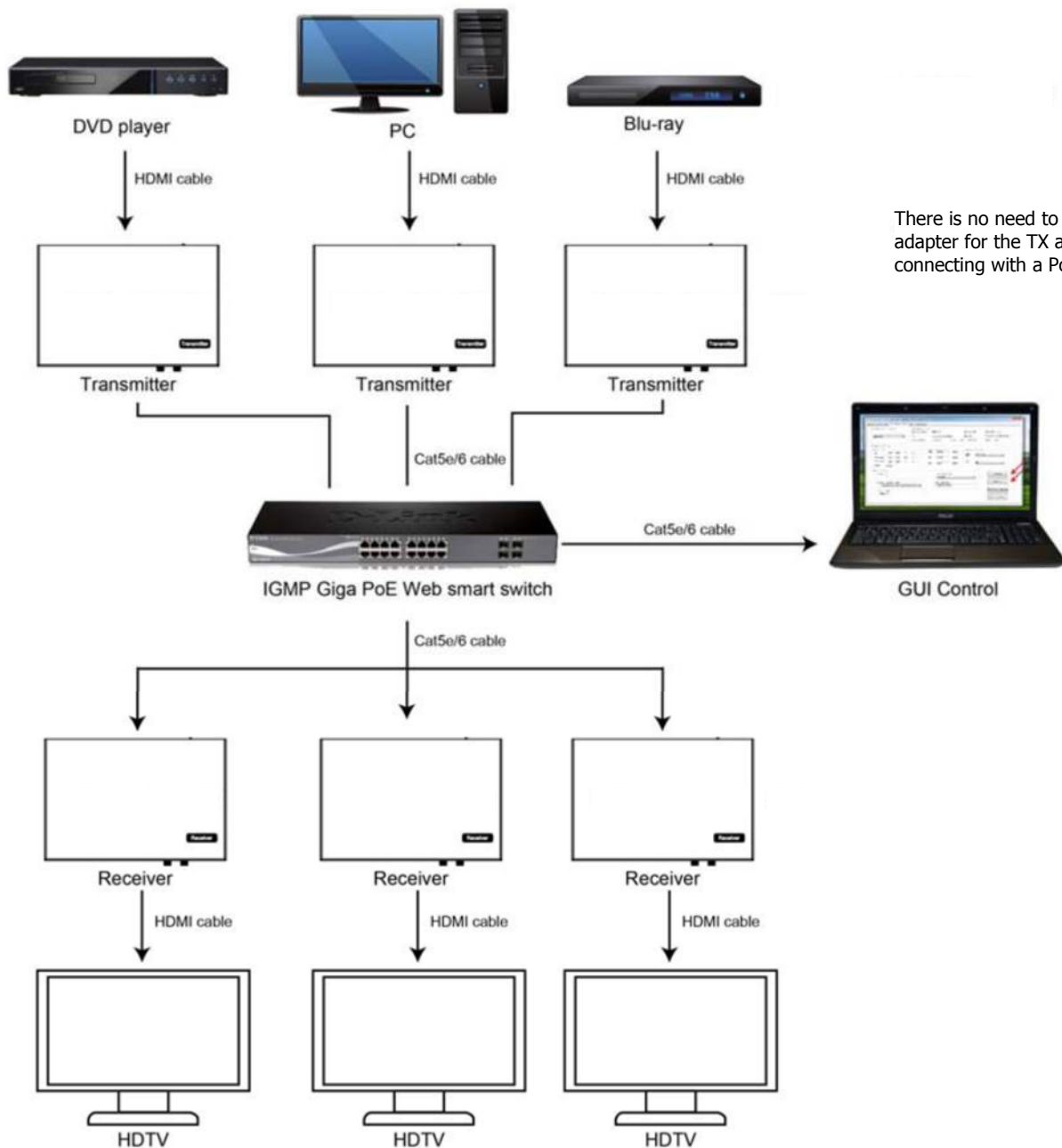
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SAFETY PRECAUTIONS

- To prevent fire or shock hazard, do not expose this equipment to dust or high humidity. Do not use in an unprotected outdoor installation or in areas classified as overly damp or wet.

- The installation temperature should be kept between 32°F to 140°F (0°C to 60°C). Avoid direct sunlight exposure or extreme changes of temperature over a short period of time.

- Do not place the unit on an unstable base and avoid heavy impact.

- Proper ventilation is required for permanent installation. Do not block or cover enclosure openings as they protect the unit from overheating.

- Prior to cleaning, turn the power off and unplug the unit from all connections. Use a damp cloth. Do not use liquid or aerosol cleaners.

- Do not overload outlets and extension cords as this may result in a risk of fire or electric shock.

- Enclosure entry is dangerous. Never push objects of any kind, including liquids, through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock.

- Do not open or service this unit yourself as opening or removing covers may expose you to dangerous voltage and other hazards.

- There are no user-serviceable parts inside the unit. If the unit requires service contact your authorized dealer, or authorized repair service company.

Federal Communications Commission (FCC) Compliance Notices

Class A Interference Statement
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Caution
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.