MEDIA OVER IP SYSTEM
B-900-MOIP-CTRL
B-900-MOIP-4K-TX
B-900-MOIP-4K-RX 4

BINARY

IR &RS-232/SERIAL
FUNCTIONALITY

FC CE

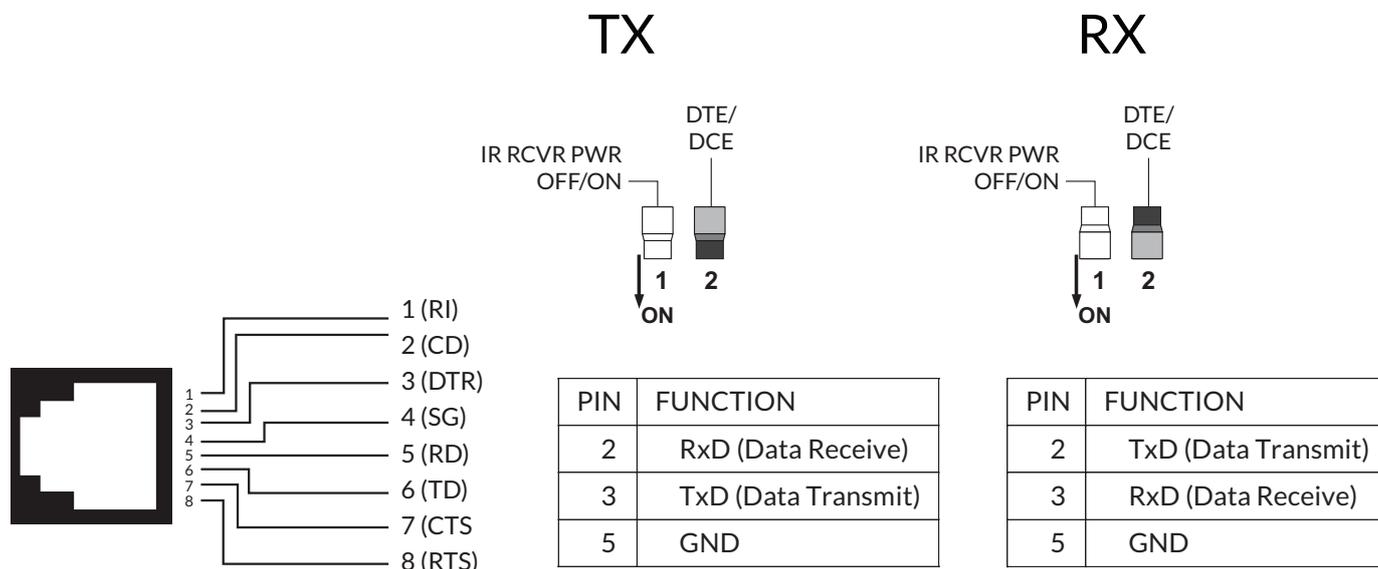## How Does MoIP RS-232 Serial Control Work?

MoIP features RS-232/Serial over IP. A control system communicates over IP to the MoIP controller. The MoIP control passes the command over IP to TX and RX where the command is generated to each controlled serial device. The notifications from the serial devices follow the reverse path over IP.

The MoIP control system drivers can be configured to support the required serial communication settings at the TX and RX for the specific serial device being controlled. To implement this functionality in a control system, individual RS-232 ports on a particular TX and RX be linked/bound directly to the serial device.

Below is a schematic of **RS-232** functionality.
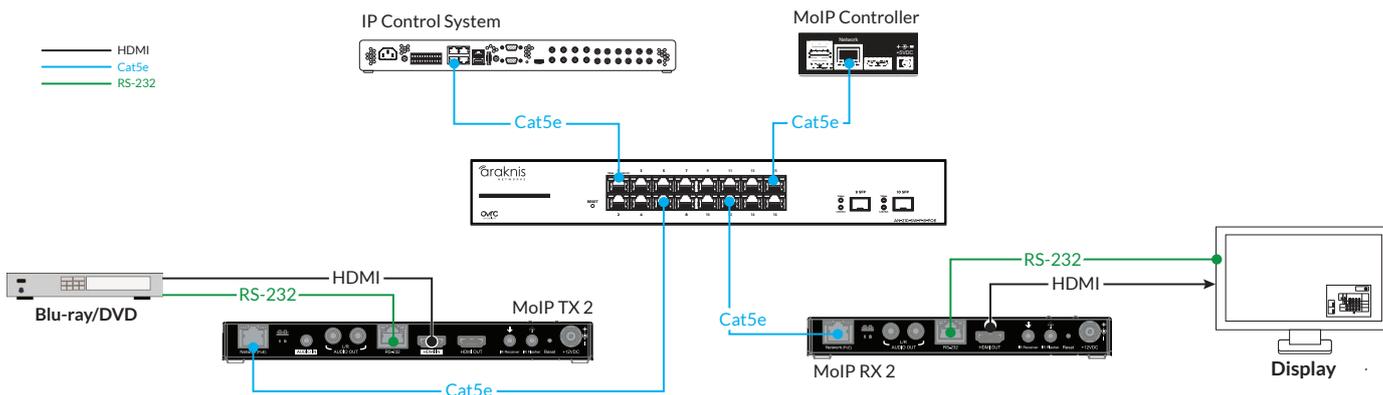
A dipswitch on both the TX and RX is provided allow the serial port to change between circuit-terminating (DTE) and data terminal (DCE) quickly simplifying serial cabling and connections. The DTE / DEC setting is set as the opposite of the device to be controlled See the figure below for pin out for the RJ-45 Serial port and dip switch functionality.


TX

1 (RI)
2 (CD)
3 (DTR)
4 (SG)
5 (RD)
6 (TD)
7 (CTS
8 (RTS)

PIN	FUNCTION
2	RxD (Data Receive)
3	TxD (Data Transmit)
5	GND

RX

PIN	FUNCTION
2	TxD (Data Transmit)
3	RxD (Data Receive)
5	GND

How Does MoIP IR Control Work?

IR routing is configured on the MoIP Controller user interface **Configure>IR Link Settings** tab. Static IR paths can be established by pairing each RX to a particular TX.

Once the Link is made, 2-way IR will always be routed, independent of the video stream, between these two devices. A TX can be paired with Multiple RXs, however, an RX can only be paired with one TX.

The figure below shows the **Links Settings** configuration page.
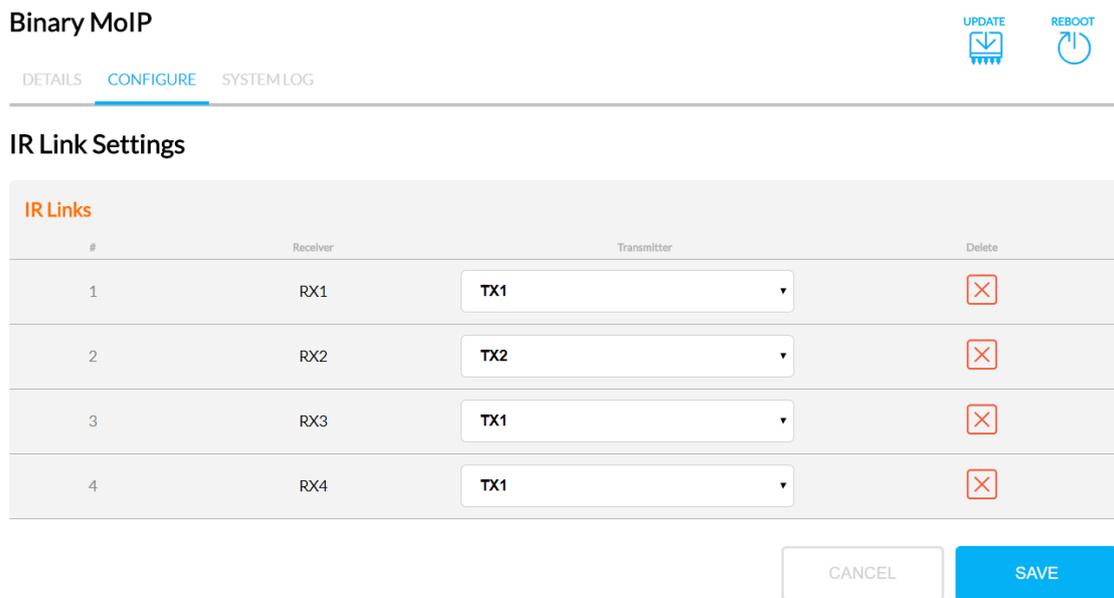
In the above example, the TX is paired with the RX, RX2 and RX4. Receivers can only be paired with one Transmitter and this pair remains static until changed in the MoIP Controller UI. Fewer control system IR output ports are necessary if multiple receivers are paired to a single TX.

The following figures show a schematic of this IR functionality.

IR Routing from One Transmitter to Many Receivers.
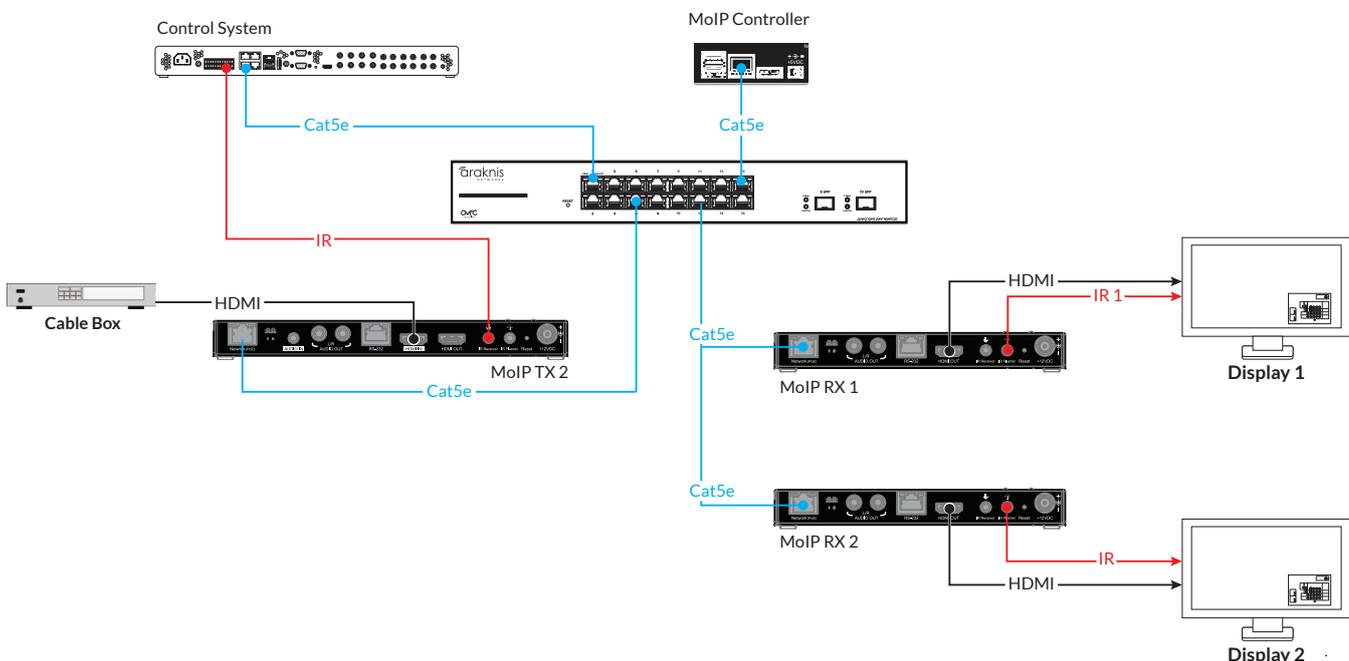
## Bi-Directional IR Routing (One Transmitter to One Receiver)
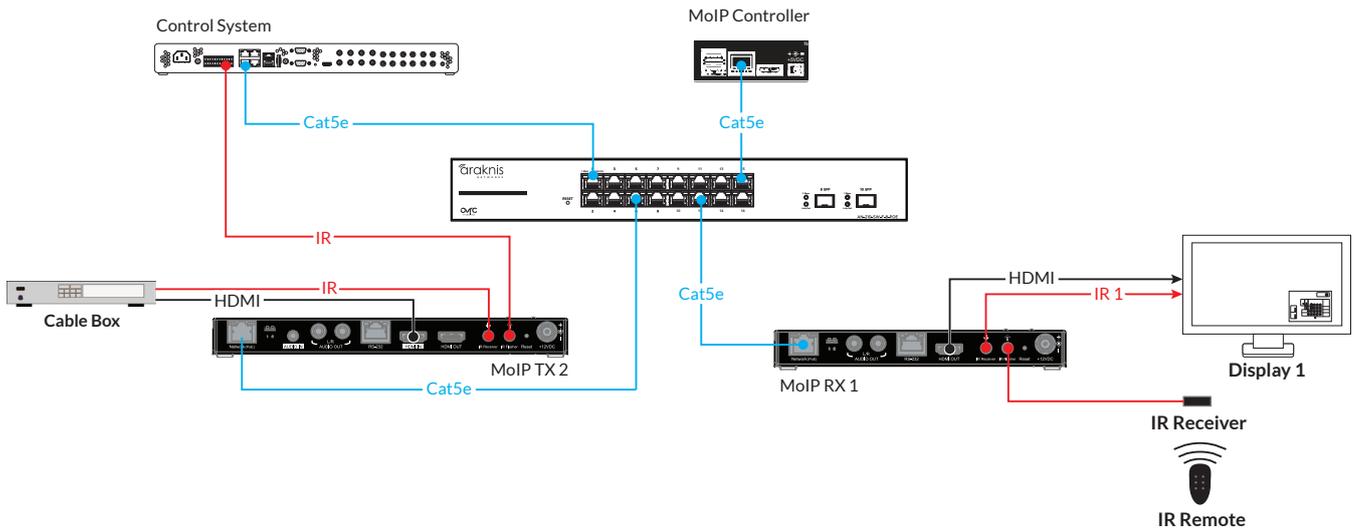
To implement a control system driver, start by connecting the IR port of the control system to the IR Receiver (12V power off) on a MoIP Transmitter, then connect an IR Flasher from MoIP Receiver to the display. Links from control system IR outputs should be made directly to the device to be controlled. The IR routing functionality acts lie virtual wiring simplify the integration. To avoid compatibility issues, Binary recommends using Episode branded IR flashers/emitters (Model IRF-1 or IRF-2) and receiver (Model EE-IR-RCVR-SM).

## Point-to-Point IR Control — Stereo (3.5mm) IR Receiver

When using a powered IR receiver, the DIP switch for IR RCVR PWR should be set to ON. In this case a 3.5mm (1/8") stereo jack has to be used to send 9V DC power to the receiver.

⚠**CAUTION: DO NOT** connect a mono cable to this connection as damage may occur.

Pinout Configuration
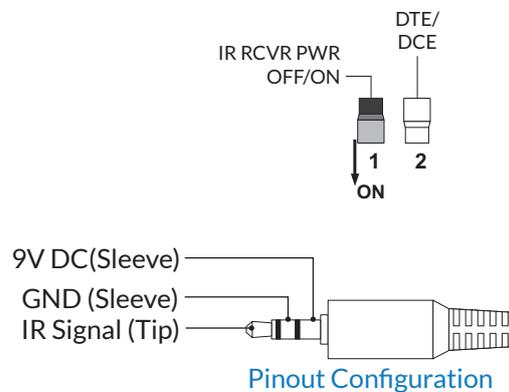
IR from Control System - Mono (3.5mm) IR Receiver

When using a control system which generates the signal through a mono jack, the IR RCVR PWR switch should be in the OFF position.

Pinout Configuration
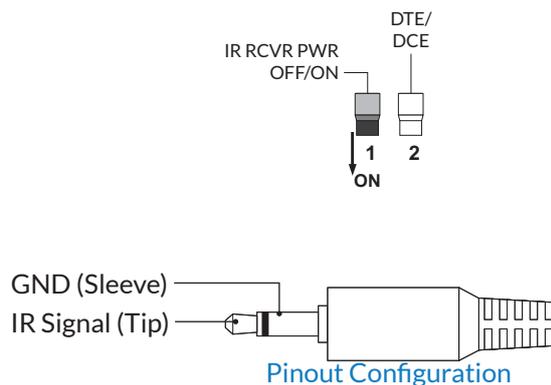
IR Flasher Out — Mono (3.5mm)

The IR Flasher level adjusts the intensity of the IR Flasher output

Pinout Configuration

Two (2) Year Limited Warranty

This Binary product has a Two-Year Limited Warranty. This warranty includes parts and labor repairs on all components found to be defective in material or workmanship under normal conditions of use. This warranty shall not apply to products that have been abused, modified or disassembled. Products to be repaired under this warranty must be returned to a designated service center with an assigned return authorization number (RA). Contact technical support for an RA number.

SUPPORT

Need Help? Contact Tech Support!

If you need further clarification, please call tech support at **866.838.5052**, or email **support@snapav.com**. For other information, instructional videos, support documentation, or ideas, visit our website and view your item's product page at **www.snapav.com**.

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