

# BINARY® MoIP

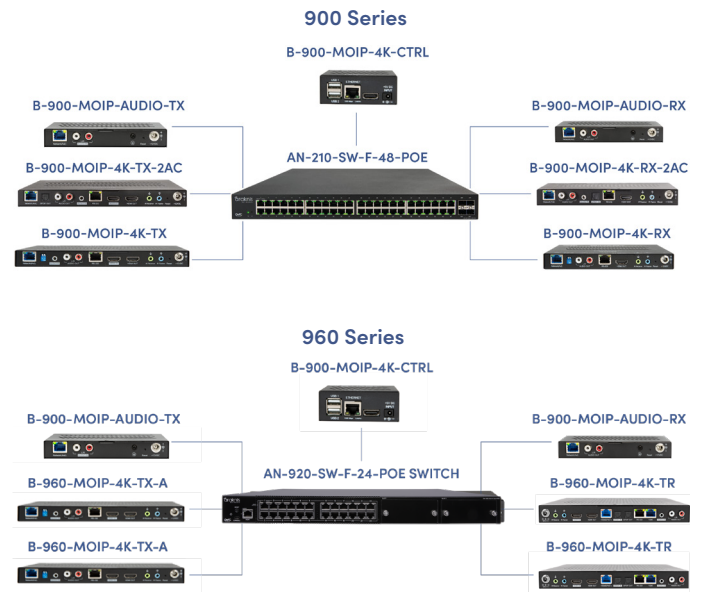


## Multiroom Entertainment Redefined

Binary Media over IP (MoIP) is modern AV distribution at its best. Send 4K Ultra HD content from any number of sources to any number of displays over the network for a completely scalable solution. MoIP Audio also distributes premium sound throughout the system without delay. MoIP Audio can be used as a standalone system or with MoIP Video, creating the industry's most flexible and scalable AV distribution system.

## Two Solutions. One Platform.

The Binary MoIP 900 and 960 Series can handle all AV and multiroom audio. They both work with the 900 Series MoIP controller and MoIP Audio, providing additional 2-channel audio distribution throughout a project. Use MoIP Audio as a simple point-to-point solution or scaled to a 96 x 96 system with the introduction of the MoIP controller. Plus, MoIP Audio adjusts to account for any video processing delays for the ultimate in custom audio integration.



FASTEST SETUP



SCALABLE



OVC ENABLED



ULTRA-RELIABLE 4K

Exclusively at  snap one™

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## 1. How is Binary MoIP easy to set up?

Binary MoIP is easy to set up, thanks to the OvrC cloud platform and the hardware controller. Just configure your Layer 2 switch for multicast traffic, and then Autodiscover your endpoints with one button via the OvrC controller. Name your sources and displays, add your control drivers (or download the app), and you are good to go.

## 2. Is the system 4K 4:4:4 HDR compatible?

Yes. The 960 series supports and distributes 4K60 4:4:4 HDR. The 900 series is 4K 4:4:4 HDR compatible at 30Hz, and will accept 60Hz signals, but will only send 30Hz content over the network.

## 3. Can I mix and match MoIP 900 and 960 Series components?

You'll need to choose either 900 and 960 Series components, as you cannot mix and match each series. However, both 900 and 960 Series components will work with the 900 Series MoIP controller and MoIP Audio components.

## 4. Does Binary MoIP offer audio downmixing?

Yes. Binary 900 Series 4K Media over IP transmitters and receivers are available both with and without downmixing. Choose the downmixing version and eliminate the need to choose multi-channel audio. Or, force downmixing, providing immersive multi-channel audio in one area while sharing throughout the space in a 2-channel audio format. **(Available on B-900-MOIP-4K-TX-2AC, B-900-MOIP-4K-RX-2AC and B-960-MOIP-4K-TX-A)**

## 5. Can I adjust audio to sync perfectly with video using Binary MoIP?

Yes. Binary 900 Series 4K Media over IP transmitters and receivers are available both with and without downmixing. Choose the downmixing version and get 0ms to 250ms analog output lip-sync adjusting for perfect audio/video synchronization. **(Available on B-900-MOIP-4K-TX-2AC, B-900-MOIP-4K-RX-2AC, and B-960-MOIP-4K-TX-A)**

## 6. Can I do audio breakaway on each box?

Yes. You can break audio out of the analog outputs on each endpoint if your video source is set to 2-channel audio. Multichannel formats can be passed through—or looped out of—the HDMI loop on the transmitter. Dolby or DTS downmixing capability are available on **B-900-MOIP-4K-TX-2AC, B-900-MOIP-4K-RX-2AC and B-960-MOIP-4K-TX-A.**

## 7. Do the I/O boxes infinitely scale my RS-232 and IR commands and allow routing?

Yes. All RS-232 and IR commands can be virtually routed via the local UI and are available via IP protocol. They can be scaled to as many endpoints as desired.

## 8. How many TX, RX, and TR boxes can I use?

Current system limitations are artificially capped at 96x96, but you are only limited by your network.

## 9. What is the MoIP controller and why is it necessary?

The MoIP controller is the brain of the MoIP system. Its custom software enables easy setup, simple switching, control integration, and OvrC remote access.

## 10. What is the best way to set up my network to ensure the system works properly?

The recommended setup is to use a dedicated MoIP switch one layer below your router and core switch and configure it for multicast traffic with our networking guide found on the product page's Support tab. This isolates the MoIP endpoints from the rest of the network and simplifies the troubleshooting process if problems do arise.

## 11. What if I'm using a switch from another manufacturer—what are the recommended settings?

Recommended settings on switches include enabling IGMP snooping for multicast traffic.

## 12. How do I integrate my control system?

All control drivers are posted on the SnapAV website, and are designed in the most simplistic way possible, to make matriXed video integration easier than ever.

## 13. Do I need a 10GB switch to use MoIP?

You will only need a 10GB switch when using Binary 960 Series. This allows support for features like 4K60 4:4:4 and Video Tiling.

## 14. What is the benefit of SDVoE?

SDVoE provides zero-latency processing, switching, and control with common control APIs, interoperability for an A/V eXtension, and enabling simple setup across devices.

## 15. Does the system support multiple sources on a single display?

Yes. The Binary 960 Series offers Video Tiling, which enables up to 16 sources on a single display for sports walls, tracking news while gaming, and virtually any other combination your customer needs. Available on RX only.

## 16. What is a Transceiver? (B-960-MOIP-4K-TR)

The new MOIP 960 Transceiver (TR) is a simultaneous transmitter and receiver all in one. It allows such sources as a local gaming console to share its stream with the entire MOIP network.

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|                                                     | B-960-MOIP-4K-TX-A/RX       | B-960-MOIP-4K-TR     | B-900-MOIP-4K-TX/RX                                    | B-900-MOIP-4K-TX/<br>RX-2AC                            |
|-----------------------------------------------------|-----------------------------|----------------------|--------------------------------------------------------|--------------------------------------------------------|
| Dimensions in Inches (L x W x H)                    | TX: 8.46" x 8.46" x .98"    | 8.46" x 8.46" x .98" | TX: 8.19" x 4.73" x 0.83"<br>RX: 6.70" x 4.73" x 0.83" | TX: 8.19" x 6.14" x 0.83"<br>RX: 7.25" x 6.14" x 0.83" |
| Dolby Digital and DTS Downmixing to 2-Channel Audio | ✓<br>Only available on TX-A | ✗                    | ✗                                                      | ✓                                                      |
| Audio Latency Adjustment (Variable Lip Sync Delay)  | ✓                           | ✗                    | ✗                                                      | ✓                                                      |
| 4K HDR Capable                                      | 4K60 4:4:4 HDR10            | 4K60 4:4:4 HDR10     | 4K30 4:4:4 HDR10                                       | 4K30 4:4:4 HDR10                                       |
| Cloud Controller for Easy Set Up                    | ✓                           | ✓                    | ✓                                                      | ✓                                                      |
| Easy Multicast Switch Setup Without VLANs           | ✓                           | ✓                    | ✓                                                      | ✓                                                      |
| HDCP Support                                        | ✓                           | ✓                    | 2.2 / 1.4                                              | 2.2 / 1.4                                              |
| Multi-Channel Audio                                 | ✓                           | ✓                    | ✓                                                      | ✓                                                      |
| Audio De-Embedding                                  | ✓                           | ✓                    | ✓                                                      | ✓                                                      |
| RS-232                                              | ✓                           | ✓                    | ✓                                                      | ✓                                                      |
| IR                                                  | ✓                           | ✓                    | ✓                                                      | ✓                                                      |
| Video Wall—Automatic Bezel Adjustment               | ✓                           | ✓                    | ✓                                                      | ✓                                                      |
| Video Tiling                                        | ✓<br>Only available on RX   | ✗                    | ✗                                                      | ✗                                                      |
| Transceiver                                         | ✗                           | ✓                    | ✗                                                      | ✗                                                      |
| SDVoE                                               | ✓                           | ✓                    | ✗                                                      | ✗                                                      |
| Video Wall—Rotation                                 | ✓                           | ✓                    | ✓                                                      | ✓                                                      |

# BINARY® MOIP

## B-900-MOIP-AUDIO-TX/RX

|                                  |                                                                                                                   |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Dimensions in Inches (L x W x H) | Without Rack Ears: 5.5" x 0.83" x 3.15"                                                                           |
| Audio Features                   | Audio Sample Rate: 48kHz, 96kHz, 192kHz<br>Audio Bit Depth: 16 bit, 24 bit                                        |
| Supported Audio Formats          | 2-Channel PCM                                                                                                     |
| Audio Inputs                     | Analog Stereo RCA                                                                                                 |
| Networking Features              | Required Managed Switch:<br>Layer 2 Managed w/ IMGP Snooping                                                      |
| IP Address                       | Assigned by Controller                                                                                            |
| System Configuration             | Supports Single Switch Deployments: Yes<br>Supports Multiple Switch Deployments: Yes<br>Auto Device Discover: Yes |
| RS-232                           | ✓                                                                                                                 |
| IR                               | ✓                                                                                                                 |
| Certifications                   | CE, FCC, RoHS                                                                                                     |

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| Brand                                     | Binary           | Binary           | Vanco            | Wyrestorm      | Just Add Power | Crestron         | AV Pro Edge      |
|-------------------------------------------|------------------|------------------|------------------|----------------|----------------|------------------|------------------|
| Series                                    | 960 Series MoIP  | 900 Series MoIP  | EVO-IP           | 600 Series     | Max Color 2    | NVX              | MXG 10G          |
| 4K HDR Output                             | 4K60 4:4:4 HDR10 | 4K30 4:2:2 HDR10 | 4K60 4:4:4 HDR10 | 4K60 4:4:4 HDR | 4K60 4:4:4 HDR | 4K60 4:4:4 HDR10 | 4K60 4:4:4 HDR10 |
| Cloud Controller for Easy Set Up          | ✓                | ✓                | ✗                | ✗              | ✗              | ✗                | ✓                |
| Audio Downmixing                          | ✓                | ✓                | ✗                | ✗              | ✓              | ✓                | ✓                |
| Audio Latency Adjustment                  | ✓                | ✓                | ✗                | ✗              | ✓              | ✗                | ✓                |
| Easy Multicast Switch Setup Without VLANs | ✓                | ✓                | ✓                | ✓              | ✗              | ✓                | ✓                |
| HDCP Support                              | 2.2 / 1.4        | 2.2 / 1.4        | 2.2 / 1.4        | 2.2            | 2.2/1.4        | 2.3              | 2.2/1.4          |
| Multi-Channel Audio                       | ✓                | ✓                | ✓                | ✓              | ✓              | ✓                | ✓                |
| Audio De-Embedding                        | ✓                | ✓                | ✓                | ✓              | ✓              | ✓                | ✓                |
| RS-232                                    | ✓                | ✓                | ✓                | ✓              | ✓              | ✓                | ✓                |
| IR                                        | ✓                | ✓                | ✓                | ✓              | ✓              | ✓                | ✓                |
| Video Wall—Automatic Bezel Adjustment     | ✓                | ✓                | ✓                | ✗              | ✗              | ✓                | ✓                |
| End User App                              | No               | Yes, (FW v3.X)   | ✓                | ✓              | ✓              | ✗                | ✗                |
| Remote Monitoring                         | Yes, OvrC        | Yes, OvrC        | ✗                | ✗              | ✓              | ✓                | ✗                |
| Remote Configuration                      | ✓                | OvrC (FW v4.X)   | ✗                | ✗              | ✓              | ✓                | ✗                |
| Integrated Video Tiling                   | ✓                | ✗                | ✗                | ✓              | ✗              | ✗                | ✓                |
| SDVoE                                     | ✓                | ✗                | ✗                | ✓              | ✗              | ✗                | ✓                |
| Transceiver Availability                  | ✓                | ✗                | ✗                | ✓              | ✗              | ✓                | ✓                |
| Network Requirement                       | 10Gb             | 1Gb              | 1Gb              | 10Gb           | 1Gb            | 1Gb              | 10Gb             |