



Introduction

The Atлона **JunoX™ 451 (AT-JUNO-451)** is a 4x1 HDMI switcher for high dynamic range (HDR) formats. It is HDCP 2.2 compliant and supports 4K/UHD video @ 60 Hz with 4:4:4 chroma sampling, as well as HDMI data rates up to 18 Gbps. The JunoX 451 is ideal for residential applications with the latest as well as emerging 4K/UHD and HDR sources and displays. It is compatible with all video resolutions, audio formats, and color space formats supported in the HDMI 2.0a specification, plus the ability to pass metadata for HDR content. The JunoX 451 includes EDID management features and automatic input switching. It also supports the HDMI Audio Return Channel for receiving digital audio from a television, and includes a TOSLINK digital audio output for sending this audio an AV receiver or soundbar. This JunoX Series HDMI switcher can be controlled via Ethernet, RS-232, and IR.

The JunoX 451 is designed to deliver dependable, pristine-quality image presentations in residential as well as commercial applications.

Applications

- Installations utilizing the latest UHD and HDR sources such as Ultra HD Blu-ray players, plus compatible televisions and projectors.
- TV showrooms requiring reliable content distribution to televisions, to properly demonstrate the quality and appeal of 4K and HDR programming.
- Professional AV applications with full-motion, highly detailed 4K graphics presentations for visualization, 3D renderings, simulations, and more.

Key Features

4x1 HDMI Switcher

- Delivers high performance, reliable HDMI signal switching.
- Easy to install and deploy in residential and commercial applications.

4K/UHD capability @ 60 Hz with 4:4:4 chroma sampling, plus support for HDR formats

- Compatibility with new and emerging 4K/UHD and HDR-capable sources and displays.
- Fully supports video resolutions, audio formats, and color space formats in the HDMI 2.0a specification.

HDCP 2.2 compliant

- Adheres to latest specification for High-bandwidth Digital Content Protection.
- Allows protected content stream to pass between devices.

Automatic input selection using hot plug detect and video detection technology

- Selects active input when sources are connected or if there is a change in source power status.
- Enables simplified, automatic system operation with no user intervention necessary.

EDID management

- Manages EDID communications with the source through a display's EDID or internally stored EDID.
- Ensures desired audio formats and video resolutions are provided to the AV system.

Delivers return audio from a TV to an optical digital audio output

- Supports the HDMI Audio Return Channel and provides a return audio pathway from a television to an AV receiver or soundbar over the TOSLINK digital audio output.
- Easy and convenient integration of television audio for over-the-air broadcasts, smart TV apps, and more.

TCP/IP, RS-232, and IR control

- Flexible control options for compatibility with third-party control systems.
- Reduces integration time and costs.

Front panel input selection status LEDs

- LED indicators provide HDMI input selection status information.
- Provides easy setup and troubleshooting.

Specifications

| Video | | |
|----------------------------------|---|---|
| Signal | Input - HDMI Output - HDMI | |
| Copy Protection | HDCP 2.2 | |
| Pixel Clock | 600 MHz | |
| UHD/HD/SD | 4096x2160 (DCI) @ 24/25/30/50/60 ⁽¹⁾ Hz 3840x2160 (UHD) @ 24/25/30/50/60 ⁽¹⁾ Hz 2048x1080p 1920x1080p @ 23.98/24/25/29.97/30/50/59.94/60 Hz 1920x1080i @ 50/59.94/60 Hz 1280x720p @ 50/59.94/60 Hz | 720x576p 720x576i 720x480p 640x480i |
| VESA All resolutions are 60Hz | 2560x2048 2560x1600 2048x1536 1920x1200 1680x1050 1600x1200 1600x900 1440x900 1400x1050 | 1366x768 1360x768 1280x1024 1280x800 1280x768 1152x768 1024x768 800x600 640x480 |
| Color Space | YUV, RGB | |
| Chroma Subsampling | 4:4:4, 4:2:2, 4:2:0 | |
| Color Depth | 8-bit, 10-bit, 12-bit | |
| HDR | 4K HDR10 @ 60 Hz and Dolby® Vision™ @ 30 Hz | |

| Audio | | | |
|--|---------------------------------|---|--|
| HDMI / HDBaseT Pass-Through Formats | PCM 2.0 LPCM 5.1 LPCM 7.1 | Dolby® Digital Dolby Digital Plus™ Dolby TrueHD Dolby Atmos® | DTS® Digital Surround™ DTS-HD Master Audio™ DTS:X® |
| Bit Depth | Up to 24 bits | | |

| Resolution / Distance | 4K/UHD - Feet / Meters | | 1080p - Feet / Meters | |
|-----------------------|------------------------|---|-----------------------|----|
| HDMI IN/OUT | 15 | 5 | 30 | 10 |

| Control | |
|-------------|---|
| RS-232 | Device control and configuration Supported baud rates: 2400, 4800, 9600, 19200, 38400, 57600, 115200 |
| IR | Pass-through from control system to sink device |
| CEC Support | Yes |

| Buttons and Indicators | |
|---------------------------------|--------------------------|
| Buttons: POWER, INPUT | 2 x momentary, tact-type |
| Indicators: INPUT | 4 x LED, blue |

| Connectors | |
|-------------|-------------------------------|
| HDMI IN | 4 x Type A, 19-pin female |
| HDMI OUT | 1 x Type A, 19-pin female |
| USB | 1 x Mini Type A, 5-pin female |
| RS-232 / IR | 1 x 4-pin captive screw |
| LAN | 1 x RJ45 |
| OPTICAL | 1 x TOSLINK |
| FW | 1 x Type mini-B, 5-pin female |
| DC 5V | 1 x Barrel, locking |

| Environmental | Fahrenheit | Celsius |
|-------------------------|----------------------------|------------|
| Operating Temperature | +32 to +122 | 0 to +50 |
| Storage Temperature | -4 to +140 | -20 to +60 |
| Operating Humidity (RH) | 20% to 90%, non-condensing | |

| Power | |
|-----------------------|--|
| Consumption | 6.6 W |
| Idle Consumption | 5.9 W |
| BTU/h | 22.5 |
| External Power Supply | 100 - 240 V AC, 50/60 Hz Output: 5 V / 4 A DC |

| Dimensions (H x W x D) | Inches | Millimeters |
|---------------------------|--------------------|----------------|
| Unit | 1.0 x 8.6 x 5.9 | 29 x 219 x 152 |
| Power Supply (AT-PS-54-L) | 1.22 x 1.97 x 3.17 | 31 x 50 x 80.6 |

| Weight | Pounds | Kilograms |
|--------|--------|-----------|
| Device | 1.82 | 0.82 |

| Certification | |
|---------------|--------------------------------|
| Device | CE, FCC |
| Power Supply | CE, FCC, cULus, RoHS, CCC, RCM |

| Compliance | |
|------------|-----|
| NDAA-899 | Yes |

| Warranty | |
|----------|--|
| Device | To view the product warranty, use the following link: https://atlon.com/warranty |

Footnotes

(1) 4K/UHD @ 60 Hz only supports 4:2:0.

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