

V-1-4K

VIDEO SWITCHER



▼ P60



▼ P58

The new benchmark in compact 4K switching for live event production

- Professional 4K 60p switcher with HDR support and flexible connectivity
- All-in-one design that's easy to carry and set up
- Intuitive panel layout with customizable pads and T-bar
- Five HDMI 2.0 inputs, four HDMI 2.0 outputs, multi-view output, and USB 4K 60p streaming output
- Two XLR line inputs, stereo RCA output, and 3.5 mm stereo output for phones and external audio destinations
- ROI (Region of Interest) function enables cropping up to four areas from a single 4K video source
- Multi-channel audio mixing and effects
- PTZ control with support for multiple brands and mixed protocols running at once
- Extensive device control over USB and LAN
- Graphics Presenter software for Windows elevates live productions with stunning graphics
- V-1-4K remote control software available for iPad, macOS, and Windows
- VenuSet control panel app for iPad, macOS, and Windows streamlines operation for users of any skill level



HDMI Connectivity with Input Scaling

The V-1-4K features five HDMI inputs with scalers on every channel, enabling seamless switching between HD and 4K 60p HDR video sources. Five HDMI output channels include multi-viewer functionality, allowing independent video signals to be fed to a main monitor, a confidence monitor, and other destinations without a distribution amplifier.



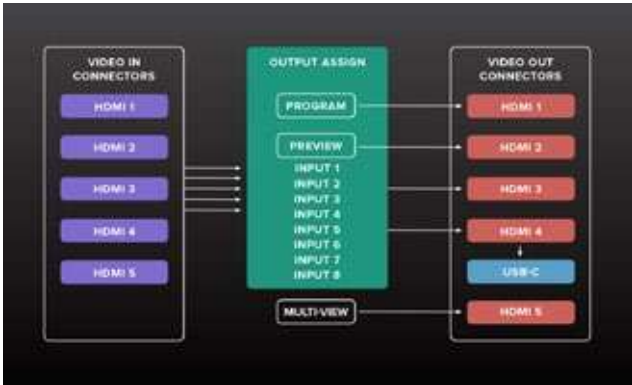
Professional Graphics in 4K

Graphics Presenter software for Windows allows you to create stunning titles and graphics without the need for expensive third-party graphic presentation solutions. V-1-4K setup is quick and straightforward, requiring only a single HDMI connection to send fill and key signals from the computer to the switcher. Graphics Presenter Version 3.0 and later supports 4K and HD workflows with a wide selection of ready-to-edit templates, including animated title text, sports scores, motion graphics, and more. The software and templates are available free of charge for download on Roland Cloud.



Efficient Multi-Angle Shots with ROI

The ROI (Region of Interest) processor lets you compose up to four shots from a single 4K camera image, such as a wide shot of the stage, a medium shot of a speaking panel, and close-ups of each speaker. This powerful feature elevates your production value without increasing camera count, complexity, or costs. Using the V-1-4K RCS or V-1-4K Remote app, it's easy to set and adjust cropped areas from a computer or iPad.



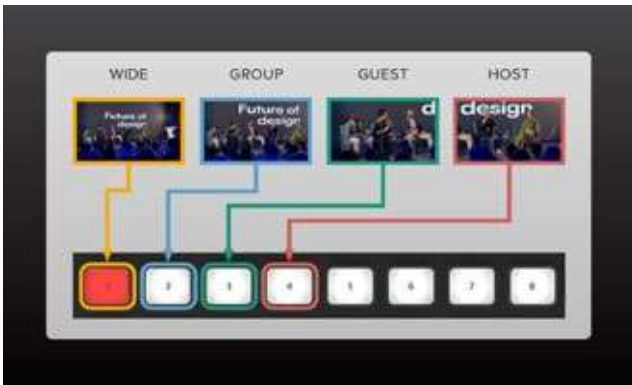
Flexible Routing

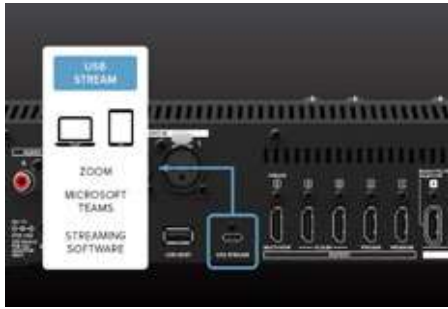
The five video inputs and six total outputs (HDMI plus USB streaming) offer flexibility for a wide range of production needs. In addition to program, preview, and multi-view outputs, output channels 3 and 4 can be assigned to any output bus and any input signal via 4K-to-HD downscalers.



Video Composition Tools

The V-1-4K makes it simple to keep audiences engaged with layered graphics and visual effects. Three composition layers allow you to use scalable picture-in-picture images and add titles, logos, social media comments, and more.





Plug-and-Play Streaming Up to 4K 60p

The V-1-4K uses the same connection technology as webcams for a plug-and-play streaming experience. Simply connect the USB-C output to a computer and start streaming with Zoom, Microsoft Teams, or any streaming platform that supports a standard webcam connection.

Deep PTZ Camera Integration

Robotic PTZ (pan-tilt-zoom) cameras greatly expand your production capabilities, thanks to their small size and remote-controlled positioning. The V-1-4K includes built-in control support for select Canon, JVC, Panasonic, Sony, PTZOptics, Avonic, and VISCA-compatible PTZ LAN cameras. Mix and match different brands and operate up to five PTZ cameras simultaneously. The V-1-4K Remote app for iPad is an ideal companion for PTZ operation, providing remote camera controls from the tablet.



SPECIFICATIONS V-1-4K

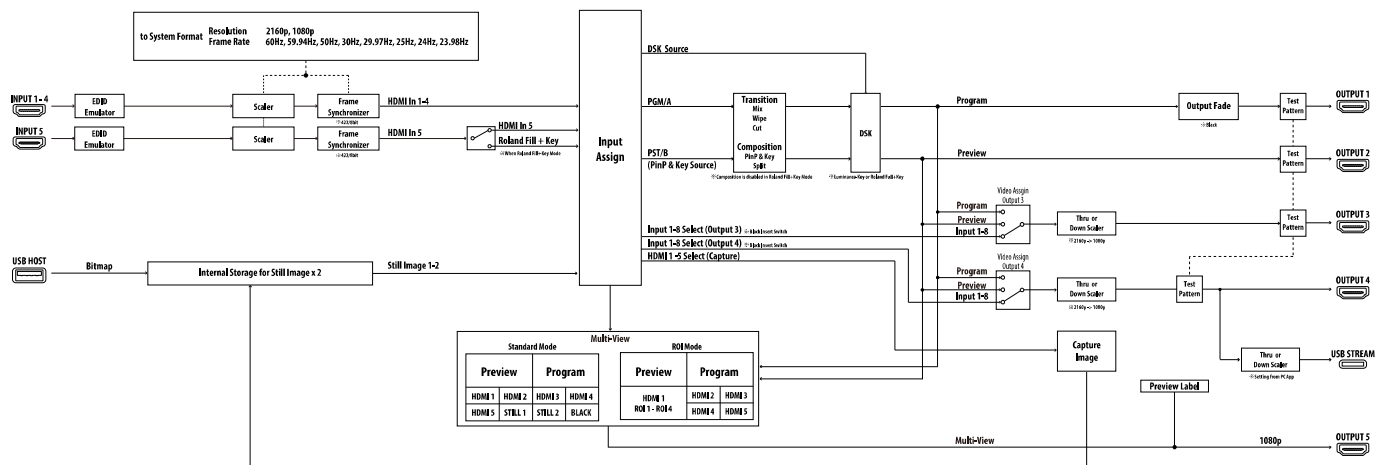
VIDEO	
Video Processing	4:2:2 (Y/Pb/Pr), 8-bit
Video Channels	5 channels
Video Input Formats	HDMI IN 1--5: 720/60p, 59.94p, 50p 1080/59.94i *1, 50i *1 1080/60p, 59.94p, 50p, 30p, 29.97p, 25p, 24p, 23.98p 2160/60p *2, 59.94p *2, 50p *2, 30p, 29.97p, 25p, 24p, 23.98p UXGA(1600x1200/60Hz), WUXGA(1920x1200/60Hz), WQHD (2560x1440/60Hz) *3 * Conforms to CEA-861-G, VESA CVT. * HDMI IN 5 support Roland FILL+KEY signal * Color Gamut and Dynamic Range are the same as the system format. *1 The input interlaced video signal is converted to progressive video signal by internal processing. *2 HDMI IN 1--3 supports YUV420. *3 Reduced Blanking
Video Output Formats	HDMI OUT 1--2 (1080/60p *1, *3, *4, 1080/59.94p *1, *4, 1080/50p *1, *5, 1080/30p *1, *6, 1080/29.97p *1, *7, 1080/25p *1, *8, 1080/24p *1, *9, 1080/23.98p *1, *10, 2160/60p *2, *3, 2160/59.94p *2, *4, 2160/50p *2, *5, 2160/30p *2, *6, 2160/29.97p *2, *7, 2160/25p *2, *8, 2160/24p *2, *9, 2160/23.98p *2, *10 *1 System Format = 1080p, *2 System Format = 2160p, *3 Frame Rate = 60 Hz, *4 Frame Rate = 59.94 Hz, *5 Frame Rate = 50 Hz, *6 Frame Rate = 30 Hz, *7 Frame Rate = 29.97 Hz, *8 Frame Rate = 25 Hz, *9 Frame Rate = 24 Hz *10 Frame Rate = 23.98 Hz HDMI OUT 3--4 1080/60p *1, *3, *4, 1080/59.94p *1, *3, *5, 1080/50p *1, *3, *6, 1080/30p *1, *3, *7, 1080/29.97p *1, *3, *8, 1080/25p *1, *3, *9, 1080/24p *1, *3, *10, 1080/23.98p *1, *3, *11, 2160/60p *2, *4, 2160/59.94p *2, *5, 2160/50p *2, *6, 2160/30p *2, *7, 2160/29.97p *2, *8, 2160/25p *2, *9, 2160/24p *2, *10, 2160/23.98p *2, *11 *1 System Format = 1080p, *2 System Format = 2160p, *3 System Format = 2160p and Down-convert = ON, *4 Frame Rate = 60 Hz, *5 Frame Rate = 59.94 Hz, *6 Frame Rate = 50 Hz, *7 Frame Rate = 30 Hz, *8 Frame Rate = 29.97 Hz, *9 Frame Rate = 25 Hz, *10 Frame Rate = 24 Hz, *11 Frame Rate = 23.98 Hz, * Color Gamut: Rec.709, Rec.2020, * Dynamic Range: SDR, HDR PQ (HDR10), HDR HLG, * HDMI OUT 3--4 can be Down-convert out (1080p) when system format is 2160p. * Conforms to CEA-861-G. HDMI OUT 5 (MULTI-VIEW) 1080/60p * Color Gamut: Rec.709, * Dynamic Range: SDR, * Conforms to CEA-861-G. USB STREAM: 1080/60p, 59.94p, 50p, 30p, 29.97p, 25p, 2160/60p, 59.94p, 50p, 30p, 29.97p, 25p *Supports Uncompressed Video (YUY2) and Compressed Video (Motion JPEG).
Still Image	Bitmap File (.bmp) Up to 3840 x 2160 pixels, 24-bit color, uncompressed. * It can be stored up to 2 files in the internal memory.
Video Effects	Transition: Cut, Mix (Dissolve), WIPE (8 types), SPLIT (2 types) Composition: PinP x 1 (Square), Keyer x 1 (Luminance Key, Chroma Key), DSK (Luminance Key), Roland FILL+KEY Mode Other: Multi-View (1 types), Still Image capture, Still Image playback, Output fade (Audio, Video: Black), Test pattern output

* 0 dBu = 0.775 Vrms

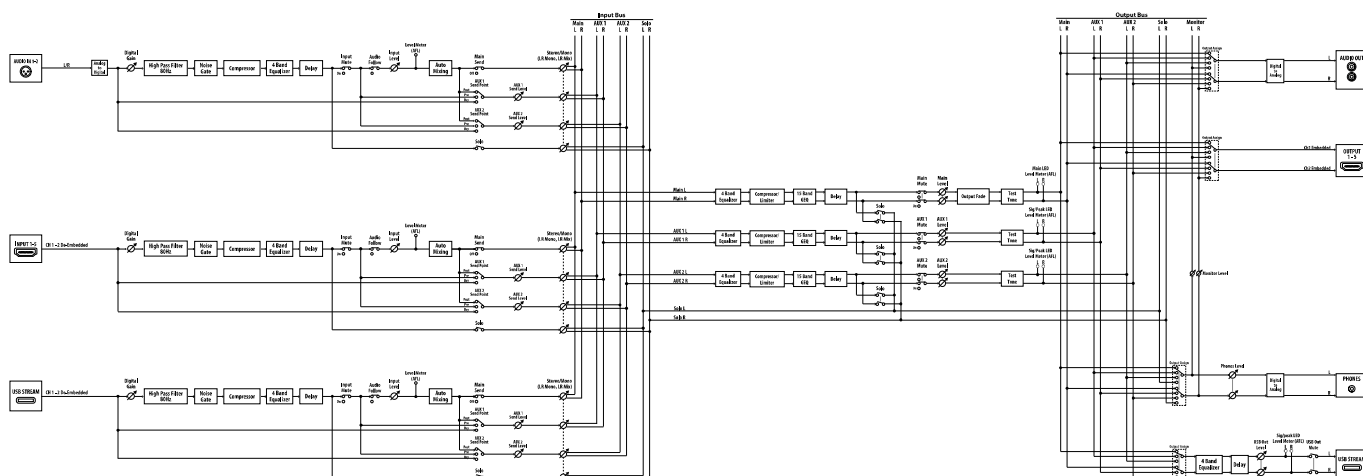
* This product is a Class A digital device under FCC part 15.

* The terms HDMI, HDMI High-Definition Multimedia Interface, HDMI Trade dress and the HDMI Logos are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.

AUDIO	
Audio Processing	Sample rate: 24 bits, 48 kHz
Audio Channels	14 channels
Audio Formats	USB STREAM (input/output): Linear PCM, 16 bits, 48 kHz, 2 ch HDMI IN: Linear PCM, 24 bits, 48 kHz, 2 ch HDMI OUT: Linear PCM, 24 bits, 48 kHz, 2 ch
Audio Effects	Channel Effects: High pass filter, Noise gate, Compressor, 4-Band equalizer, Delay, Auto mixing Master Effects: 4-Band equalizer, Compressor/Limiter, 15-Band GEQ, Delay Other: Output fade, Test tone output
COMMON SECTION	
Other Functions	Memory (8 types), Panel lock function, EDID Emulator, Auto Switching Smart Tally, Remote Camera Control (Up to 5 units)
CONNECTORS	
Video Input Connectors	HDMI IN 1--5: HDMI type A x 5 (HDMI2.0) * HDCP 1.4 2.2 Supported, * Multi-format Supported
Video Output Connectors	HDMI OUT 1--4: HDMI type A x 4 (HDMI2.0) * HDCP 1.4 2.2 Supported HDMI OUT 5: HDMI type A x 1 (HDMI1.4) * HDCP 1.4 Supported USB STREAM: USB Type-C (R) (USB2.0 / USB3.2 Gen1)
Audio Input Connectors	Analog: AUDIO IN 1--2: XLR type Digital: USB STREAM: USB Type-C (R) HDMI IN 1--5: HDMI type A x 5
Audio Output Connectors	Analog: AUDIO OUT 1--2: RCA phono type PHONES: Stereo miniature phone type Digital: USB STREAM: USB Type-C (R) HDMI OUT 1--5: HDMI type A x 5
Other Connectors	USB HOST: USB A type (for USB flash drive) USB STREAM: USB Type-C (R) (for remote control from PC and iPad) LAN CONTROL: RJ45, 100BASE-T (for Remote Control)
AUDIO INPUT/OUTPUT CHARACTERISTICS	
Input Level	AUDIO IN 1, 2: +4 dBu (Maximum: +24 dBu)
Input Impedance	AUDIO IN 1, 2: 16 k ohms
Output Level	AUDIO OUT 1, 2: -10 dBu (Maximum: +10 dBu) PHONES: 92 mW + 92 mW (32 ohms)
Output Impedance	AUDIO OUT 1, 2: 1 k ohms PHONES: 10 ohms
OTHERS	
Power Supply	AC Adaptor
Current Draw	4 A
Power Consump.	52 W
Operating Temp.	+0 to +40 degrees Celsius, +32 to +104 degrees Fahrenheit
Dimensions	330 (W) x 164 (D) x 79 (H) mm, 13 (W) x 6-1/2 (D) x 3-1/8 (H) inches
Weight (excl. AC ad.)	1.9 kg, 4 lbs 4 oz
Accessories	Startup Guide, Leaflet "USING THE UNIT SAFELY", AC adaptor Power cord



VIDEO BLOCK DIAGRAM



AUDIO BLOCK DIAGRAM

Powerful 4K Switching and Streaming in a Portable, All-in-One Design

Roland's popular V-1 series has led the industry since 2004, redefining entry-level video switching with innovative, professional-grade products that are easy for anyone to operate with minimal training. The V-1-4K sets a new benchmark, offering comprehensive support for today's 4K 60p workflows in a compact, accessible, and user-friendly hub for live events, houses of worship, conference rooms, livestreaming, and more.

