

iWall 409R Gen2

HDMI 4K60Hz 4x9 Video Wall Controller

< Design spec for integrators and designers >

INTEGRATED AUDIO-VIDEO SYSTEMS AND EQUIPMENT

V1.0

Specifier: The Specifier/Design Professional is responsible for the accuracy of all project specifications, including system application and coordination with related sections. This guide specification is provided as a convenience and requires editing to match actual project requirements. INFOBIT SHALL NOT BE LIABLE FOR ANY DAMAGES ARISING OUT OF THE USE OF ANY OF ITS GUIDE SPECIFICATIONS. For INFOBIT design assistance and design review please contact Sales Support Services Department at info@infobitav.com.

GENERAL

- A. The Videowall Controller shall support following features:

Modular Structure

- Pure hardware, without Windows OS
- Supports 4x HDMI inputs, 2x DP inputs (simultaneous as HDMI IN1 and IN2), 9x HDMI outputs and 1x HDMI loop out.

Signal features

- The Videowall Controller shall support HDMI 2.0b, HDCP 2.2, 18Gbps, up to 4K60 YCbCr 4:4:4 24bit
- The Videowall Controller shall support down-scaler 4K to 2K
- The Videowall Controller shall support seamless switching
- The Videowall Controller shall support videowall function.
- The Videowall Controller shall support any size videowall layouts in the range of max. 9 screens.
- The Videowall Controller shall support built-in HDCP processing logic to avoid HDCP compatibility issues.
- The Videowall Controller shall support inputs with audio embedding.
- The Videowall Controller shall support control via IR, RS-232, TCP/IP, Keyboard control, PC program.
- The Videowall Controller shall support 1x 3.5mm audio output.
- The Videowall Controller shall support image rotation of each output (90° , 180° , 270°).



- supports maximum input 3840x2160@60Hz and backwards compatible and maximum output 1920x1080@60Hz.

Videowall features

- The Videowall Controller shall supports 4 source windows on the whole wall in multiple displaying modes: single image, PIP (Picture in Picture), POP (Picture on Picture), PYP (Picture by Picture) or Quad-view.
- The Videowall Controller shall all video windows free zooming, cross-screen roaming, re-sizing with arbitrary layers overlay.
- The Videowall Controller shall support signal cropping, which can remove black edges and crop the focused content to emphasize any details.
- The Videowall Controller shall supports 16x videowall displaying modes such as horizontal screen 1x1 to 1x9; vertical screen 9x1 to 1x1; or mosaic type: 2x2, 2x3, 3x3, 2x4, 4x2... etc.
- The Videowall Controller shall supports 4 channels of 4K*2K@60 input, each input port burns different resolutions, and supports EDID management, reading, modification and customization of EDID.
- The Videowall Controller shall support inputs and outputs rotation: any input can be rotated in 90°, 180° or 270°, and the first row of output can be rotated in 180°.
- The Videowall Controller shall support seamless real-time switching, without black screen intervals or lag during the signal switching.
- The Videowall Controller shall supports image effect color, saturation and other parameter adjustment functions to solve the problem of signal color restoration, with screen freezing and screen mirroring function, gamma/ panel gamma modes.
- Optional audio de-embedded, audio output can follow the HDMI OUT 1 or all output ports. Also can disable audio of all ports.

PRODUCTS

Audio Video Switching And Transmission System

- B. Basis-of-Design Manufacturer: Subject to compliance with requirements, provide products of **INFOBIT CO., LTD.**

Specifier: The following paragraphs include related AV system components specified in other sections. Paragraph "A" and sub-paragraphs may be edited or deleted to suite actual project needs.

- C. The system shall be composed of the following components:

Automation and control system.

- Hardware control processor.
- Hardware and software user interfaces.

Videowall Controller unit with compact-design with:



- 4x HDMI IN, and 9x HDMI OUT.

Software for:

- System configuration
- System Management

Videowall Controller

Specifier: The following information related to the iWall 409R Gen2 is based on preliminary information. All information is subject to change.

- D. Basis of design product: INFOBIT iWall 409R Gen2 4x9 4K60 Videowall Controller.
- E. The Videowall Controller shall integrate with external control systems by same manufacturer.
All control capabilities shall be accessible by compatible networked control systems.
External control shall not be limited to a single controller.
- F. The system shall be capable of stand-alone switching operation through use of PC software, IR remote, and Keyboard hotkey.
- G. Videowall Controller Signal Routing
- Any input shall be routable to a single output or multiple outputs.
 - The Videowall Controller shall support 4K60Hz 4:4:4 signal inputs.
 - The Videowall Controller shall support portrait videowall function.
 - The Videowall Controller shall support audio embedding and de-embedding.
- H. Ethernet Network
The Videowall Controller shall include 1 Gigabit Ethernet port.
- I. Software
The Videowall Controller shall be equipped with software for setup, configuration and controlling.
The Videowall Controller shall be equipped with signal management software for:
- Image drag-and-drop operation.
 - Image rotation
 - Image cropping
 - Videowall setup, signal switching
 - System reboot, factory reset.

J. IR control user interface

The Videowall Controller shall include an IR remote user interface.

The Videowall Controller IR remote shall be capable of the following:

- Videowall Control.
- Inputs/ outputs switching selection.
- Top-row image rotate 180° rotation.
- Each video windows rotates 90° , 180° , 270°
- Setup videowall rows and columns.
- Switch single-image, dual-image, three-image, quad-image displaying modes.
- Image roaming of each video window.
- Zoom in/ out each video window.
- Select input sources.
- Switch Audio output.