

# X100 Pro-2U

## Video Splicer

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Specification V1.0



## 1 Overview

X100 Pro-2U is Colorlight's brand-new professional video splicer, designed especially for large splicing screens. It integrates multiple video processing functions, such as cropping, scaling, splicing, and multi-screen display. This multipurpose device can serve as a processor for LCD and DLP splicing screens or as a controller for fine-pitch LED video walls with ultra-high resolution.

With a modular design and robust FPGA architecture, X100 Pro-2U delivers outstanding display effects and efficient video processing capability, ensuring long-term, stable, and safe operation. The modular plug-in design also allows users to flexibly configure input and output boards as needed, greatly satisfying the demands of different scenarios.

In terms of inputs, X100 Pro-2U offers industry-standard ports including HDMI, DP, SDI, DVI, VGA, CVBS, and RJ45, and supports 1080P HD and 4K resolution of 4096×2160@60Hz. As for outputs, it supports both Gigabit Ethernet (GbE) and 10 Gigabit optical fiber outputs, facilitating the smooth display of fine-pitch LED screens at large scales and over long distances. Additionally, DVI and HDMI outputs are available, enabling flexible application of LCD and DLP splicing screens.

Given its powerful features and superior performance, X100 Pro-2U is suitable for a wide range of applications, such as command and dispatch systems, power system operation and maintenance, party and government conferences, visualization data centers, broadcasting and television, as well as high-end stage rentals.

## 2 Appearance

### 2.1 Front Panel



| No. | Name         | Description                                                                                  |
|-----|--------------|----------------------------------------------------------------------------------------------|
| 1   | Touch screen | Displays current device status and allows for parameters configuration and device operation. |
| 2   | Power switch | Power the device on/off.                                                                     |

 Note: The image shown is for illustration purpose only and may not be an exact representation of the product due to hardware configuration and production process. Please refer to the actual product.

## 2.2 Rear Panel



| No. | Name                         | Description                                                                                                                                                                                                                                      |
|-----|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Input board                  | Supports 10 types of input boards.                                                                                                                                                                                                               |
| 2   | Mains Input                  | AC 100–240V, 50/60Hz.                                                                                                                                                                                                                            |
| 3   | Preview and monitoring board | Displays the preview of 1 channel of 2K input and monitoring of its real-time output.                                                                                                                                                            |
| 4   | Main board                   | <ul style="list-style-type: none"> <li>• GENLOCK IN: Accepts the sync signal;</li> <li>• GENLOCK LOOP: Loops the sync signal;</li> <li>• RS232 serial port;</li> <li>• USB 3.0 port;</li> <li>• GbE control port;</li> <li>• 3D port.</li> </ul> |
| 5   | Output board                 | Supports 5 types of output boards.                                                                                                                                                                                                               |

 Note: The image shown is for illustration purpose only and may not be an exact representation of the product due to hardware configuration and production process. Please refer to the actual product.

## 3 Features

### Main Board

- GENLOCK IN/LOOP:
  - 1×GENLOCK IN port, for Genlock signal input; supports Bi-Level and Tri-Level sync.
  - 1×GENLOCK LOOP port, for Genlock signal output.
- RS232:
  - 1×RJ11/RS232 serial port (baud rate: 115,200), for connecting to a central controller or other devices.
- USB:
  - 1×USB 3.0 port, for upgrading the program and image file via a USB drive.
- LAN:
  - 1×RJ45 GbE port, for connecting to a control PC for communication.
- 3D:
  - 1×3D VESA port, for 3D sync signal output (Works with a 3D emitter and 3D glasses, both of which need to be purchased separately as optional accessories.)

### Input

- 10 types of input boards available for flexible configuration:
  - 1×HDMI2.0, supports up to 4096×2160@60Hz input on a single channel.
  - 1×DP1.2, supports up to 4096×2160@60Hz input on a single channel.
  - 1×12G-SDI, supports up to 4096×2160@60Hz video input on a single channel.
  - 1×HDMI2.0 + 1×DP1.2 (either-or), supports up to 4096×2160@60Hz input on a single channel.
  - 4×DVI, supports up to 1920×1200@60Hz input on a single channel.
  - 4×HDMI1.4, supports up to 1920×1200@60Hz input on a single channel.
  - 4×3G-SDI, supports up to 1920×1080@60Hz input on a single channel.
  - 4×VGA, supports up to 1920×1080@60Hz input on a single channel.
  - 2×VGA + 2×CVBS. VGA supports up to 1920×1080@60Hz input on a single channel; CVBS supports PAL/NTSC video input.
  - 2×RJ45 GbE ports for V\_IPX2, supports H.264 and H.265 decoding.
- Total number of input boards on a single device:
  - Maximum number of boards: 2.

- Maximum number of input windows: 32.

## Output

- 5 types of output boards available for flexible configuration:
  - 1×HDMI2.0, supports up to 4096×2160@60Hz output on a single channel.
  - 4×HDMI1.4, supports up to 1920×1200@60Hz output on a single channel.
  - 4×DVI, supports up to 1920×1200@60Hz output on a single channel.
  - 10×GbE ports, with a maximum load capacity of 6.55 million pixels output.
  - 2×10G fiber ports (1 main and 1 backup), with a maximum load capacity of 6.55 million pixels output.
- Preview and monitoring:
  - 1×HDMI1.4 port, for previewing inputs and monitoring real-time outputs, with a fixed output of 1920×1080@60Hz.
  - Supports previewing inputs and monitoring real-time outputs via web-based software.
- Total number of output boards on a single device:
  - Maximum number of boards: 4.
  - Maximum number of video outputs: 16.
  - Maximum number of GbE output ports: 40×GbE ports, with a maximum load capacity of 26.21 million pixels.
  - Maximum number of fiber output ports: 4 main and 4 backup 10G fiber ports, with a maximum load capacity of 26.21 million pixels.
- Limitations on a single device:
  - Maximum load capacity of a single device: 36,864,000 pixels.
  - Maximum width/height load capacity of a single device or a single layer: 16,384 pixels (maximum width/height).
  - Limitations on using different types of boards: 4K and 2K video output boards cannot be used together.

## Video Processing

- Number of input signals:
  - Supports 2×4K or 8×1080P simultaneously.
- Multi-window and multi-layer display:
  - Supports window roaming and free splicing.
- Cropping:

- Supports cropping of the input source. The cropped source can be used independently as a new input source.
- Scrolling text:
  - Supports customizing text content, and setting the font format and size, scrolling direction and speed, background color, etc.
  - Flexible displaying of messages, notifications, slogans, and banners.
- UHD background:
  - Supports uploading high-resolution images for background display, with a maximum width/height of 32,767 pixels.
- Logo management for input:
  - Available for text or image.
- HDR:
  - Supports HDR10, compliant with SMPTE ST 2086/2084 standards.
  - Supports HLG.
- 3D display:
  - Works with a 3D emitter and active 3D glasses (optional accessories) to deliver a 3D visual experience.
- Custom frame rate:
  - Available frame rates: 29.97/30/50/59.94/60/120Hz.
  - Supports customizing any frame rate within 23.98~240Hz.

## Color Management

- Independent color adjustment of each input source, enabling adjustments to brightness, color temperature, RGB gain, hue, contrast, saturation, and brightness compensation.
- Independent color adjustment of each Ethernet output, enabling adjustments to brightness, color temperature, RGB gain, hue, contrast, saturation, and brightness compensation.
- Independent color adjustment of each video output, enabling adjustments to brightness, color temperature, and RGB gain.
- Brightness adjustment on the level of port group, enabling independent management of display brightness for each group.

### **Device Control**

- Connectable to a PC and central controller via LAN, RS232, etc.
- Supports device access and control from Web using different operating systems (Windows, iOS, Android, Linux); multi-user operation supported.
- App control: Works with Colorlight's Kylin Visualization Intelligent Control Platform.
- Accesses device information and performs operations on the front panel.
- Manages up to 2,000 presets and schedules the preset tours.

### **Easy Maintenance**

- Upgrades the program and image file via a USB drive or web-based software.

### **Stable and Reliable**

- Redundancy backup:
  - Supports redundancy backup of Ethernet output ports and fiber output ports on a single device.
  - Supports inter-device redundancy backup.
- Device monitoring:
  - Abnormal temperature alarm, disconnection alert, etc.

## 4 Certifications

CCC, CE, UKCA, FCC, EAC, IC, and KC.

Certifications of CB, and cTUVus are underway.

 Note: If the product does not have the relevant certifications required by the countries or regions where it is to be sold, please contact Colorlight to confirm or address the problem. Otherwise, the customer shall be responsible for the legal risks, or Colorlight has the right to claim compensation.



|                                                                                                                                                |          |           |           |         |         |                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------|-----------|---------|---------|--------------------------------------------------------------|
|                                                                                                                                                |          | 1920×1080 | YCbCr/RGB | 4:4:4   | 12bit   | 23. 98, 24, 30, 50<br>,<br>59. 94, 60, 100,<br>120           |
| HD                                                                                                                                             | 1280×720 | YCbCr     | 4:2:2     | 8/10bit | 8/10bit | 23. 98, 24, 30, 50<br>,<br>59. 94, 60, 100,<br>120, 144, 240 |
|                                                                                                                                                |          | YCbCr/RGB | 4:4:4     |         |         |                                                              |
|  Note: Only a part of supported resolutions are listed above. |          |           |           |         |         |                                                              |

**V4KD1 INV5101: 1×DP1.2 port**

|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                    |                 |                    |                                       |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------|-----------------|--------------------|---------------------------------------|
| <b>Details</b>                  |  <ul style="list-style-type: none"> <li>• 1×DP port.</li> <li>• DP1.2 standard.</li> <li>• A single port supports a maximum resolution of 4096×2160@60Hz and a minimum of 800×600@60Hz.</li> <li>• 8/10/12bit input source.</li> <li>• Custom resolutions:               <ul style="list-style-type: none"> <li>- Maximum width: 8,192 pixels (8192×1080@60Hz, forced by external signal, EDID unavailable).</li> <li>- Maximum height: 8,192 pixels (1024×8192@60Hz, forced by external signal, EDID unavailable).</li> </ul> </li> <li>• HDR supported.</li> <li>• Independent EDID settings, adopting EDID V1.3 standard.</li> <li>• HDCP2.2 compliant, backward compatible.</li> <li>• Interlaced input not supported.</li> </ul> |                           |                    |                 |                    |                                       |
|                                 | <b>Input</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Maximum resolution</b> | <b>Color space</b> | <b>Sampling</b> | <b>Color depth</b> | <b>Frame rate (Hz)</b>                |
| <b>Technical Specifications</b> | <b>4K</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 4096×2160                 | YCbCr/RGB          | 4:4:4           | 12bit              | 23. 98, 24, 30                        |
|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           | YCbCr              | 4:2:2           | 8/12bit            | 23. 98, 30, 50,<br>59. 94, 60         |
|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 3840×2160                 | YCbCr/RGB          | 4:4:4           | 8bit               |                                       |
|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           | YCbCr              | 4:2:2           | 8/10bit            |                                       |
|                                 | <b>2K</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2560×1440                 | YCbCr/RGB          | 4:4:4           | 12bit              | 23. 98, 24, 30, 50<br>,<br>59. 94, 60 |
|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           | YCbCr              | 4:2:2           | 8/10bit            | 23. 98, 24, 30, 50                    |
|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1920×1200                 | YCbCr/RGB          | 4:4:4           | 8/10bit            | 59. 94, 60, 100,<br>120, 144          |
|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           | YCbCr              | 4:2:2           | 8/10bit            |                                       |

|                                                                                                                                                |          |           |           |         |         |                                                             |
|------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------|-----------|---------|---------|-------------------------------------------------------------|
|                                                                                                                                                |          | 1920×1080 | YCbCr/RGB | 4:4:4   | 12bit   | 23. 98, 24, 30,<br>50, 59. 94, 60,<br>100, 120              |
| HD                                                                                                                                             | 1280×720 | YCbCr     | 4:2:2     | 8/10bit | 8/10bit | 23. 98, 24, 30,<br>50, 59. 94, 60,<br>100, 120, 144,<br>240 |
|                                                                                                                                                |          | YCbCr/RGB | 4:4:4     |         |         |                                                             |
|  Note: Only a part of supported resolutions are listed above. |          |           |           |         |         |                                                             |

**X100IN022: 1×12G-SDI port**

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### V4K2IN1V5101: 1×HDMI2.0 port+1×DP1.2 port

|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Details</b>                  |  <ul style="list-style-type: none"> <li>• Use either 1×HDMI Type A or 1×DP port, 1×4K@60Hz input.</li> <li>• HDMI2.0 standard, compatible with HDMI1.4/1.3.</li> <li>• DP1.2 standard, compatible with DP1.1.</li> <li>• A single port supports a maximum resolution of 4096×2160@60Hz and a minimum of 800×600@60Hz; the maximum pixel clock for HDMI2.0 port is 594MHz.</li> <li>• 8/10/12bit input source.</li> <li>• Custom resolutions: <ul style="list-style-type: none"> <li>- Maximum width: 8,192 pixels (8192×1080@60Hz, forced by external signal, EDID unavailable).</li> <li>- Maximum height: 8,192 pixels (1024×8192@60Hz, forced by external signal, EDID unavailable).</li> </ul> </li> <li>• HDR supported.</li> <li>• Independent EDID settings, adopting EDID V1.3 standard.</li> <li>• HDCP2.2 compliant, backward compatible.</li> <li>• Interlaced input not supported.</li> </ul> |
| <b>Technical Specifications</b> | <ul style="list-style-type: none"> <li>• For HDMI2.0 port, please refer to the V4KH1INV5101-1×HDMI2.0 port.</li> <li>• For DP1.2 port, please refer to the V4KD1INV5101-1×DP1.2 port.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

### X100IN0011: 4×DVI ports

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Details</b> |  <ul style="list-style-type: none"> <li>• 4×SL-DVI-I ports, 4×2K@60Hz inputs.</li> <li>• A single port supports a maximum resolution of 1920×1200@60Hz and a minimum of 800×600@60Hz; the maximum pixel clock is 165MHz.</li> <li>• 8bit input source.</li> <li>• Custom resolutions: <ul style="list-style-type: none"> <li>- Maximum width: 4,096 pixels (4096×512@60Hz, forced by external signal, EDID unavailable).</li> <li>- Maximum height: 4,096 pixels (512×4096@60Hz, forced by external signal, EDID unavailable).</li> </ul> </li> <li>• Independent EDID settings, adopting EDID V1.3 standard.</li> <li>• HDCP1.4 compliant, backward compatible.</li> <li>• Interlaced input not supported.</li> </ul> |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| Technical Specifications | Input                                                                                                                                          | Maximum resolution | Color space | Sampling | Color depth | Frame rate (Hz)    |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------|----------|-------------|--------------------|
|                          | 2K                                                                                                                                             | 1920×1200          | YCbCr       | 4:2:2    | 8bit        | 23. 98, 24, 30, 50 |
|                          |                                                                                                                                                |                    | YCbCr/RGB   | 4:4:4    | 8bit        |                    |
|                          |                                                                                                                                                | 1920×1080          | YCbCr       | 4:2:2    | 8bit        | 59. 94, 60         |
|                          |                                                                                                                                                |                    | YCbCr/RGB   | 4:4:4    | 8bit        |                    |
|                          |  Note: Only a part of supported resolutions are listed above. |                    |             |          |             |                    |

### X100IN0021: 4×HDMI ports

| Technical Specifications                                                                                                                         | Input | Maximum resolution | Color space | Sampling | Color depth | Frame rate (Hz)                |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------|--------------------|-------------|----------|-------------|--------------------------------|
|                                                                                                                                                  | 2K    | 1920×1200          | YCbCr       | 4:2:2    | 8bit        | 23. 98, 24, 30, 50, 59. 94, 60 |
|                                                                                                                                                  |       | 1920×1080          | YCbCr       | 4:2:2    | 8bit        |                                |
|                                                                                                                                                  |       |                    | YCbCr/RGB   | 4:4:4    | 8bit        |                                |
|  Note: Only a part of supported resolutions are listed above. |       |                    |             |          |             |                                |

### Details



- 4×HDMI Type A ports, 4×2K@60Hz inputs.
- HDMI1.4 standard, compatible with HDMI1.3.
- A single port supports a maximum resolution of 1920×1200@60Hz and a minimum of 800×600@60Hz; the maximum pixel clock is 165MHz.
- 8bit input source.
- Custom resolutions:
  - Maximum width: 4,096 pixels (4096×512@60Hz, forced by external signal, EDID unavailable).
  - Maximum height: 4,096 pixels (512×4096@60Hz, forced by external signal, EDID unavailable).
- Independent EDID settings, adopting EDID V1.3 standard.
- HDCP1.4 compliant, backward compatible.
- Interlaced input not supported.



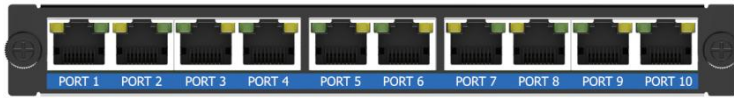
## X100IN004: 4×SDI ports

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## VIPX2V2001: V\_IPX2 ports

|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>Details</div>                  | <div></div> <div><ul style="list-style-type: none"><li>• 2×RJ45 GbE ports; 1×USB 3.0 port.</li><li>• H.264/H.265 decoding supported.</li><li>• ONVIF, GB28181, RTSP and other protocols supported.</li><li>• DHCP supported.</li><li>• Supports firmware upgrades for V_IPX2 decoder cards via a USB drive.</li></ul></div> |
| <div>Technical Specifications</div> | <div><div>8 Channels, 3840×2160@30fps</div><div>18 Channels, 2560×1440@30fps</div><div>32 Channels, 1920×1080@30fps</div><div>64 Channels, 720×576@30fps</div></div> <div><div> Note: Only a part of supported resolutions are listed above.</div></div>                                                                     |

## 5.2 Output Board

| X1000UT04: 10×Ethernet ports |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Details                      |  <ul style="list-style-type: none"> <li>• 10×RJ45 GbE ports; a single board supports up to 6.55 million pixels.</li> <li>• Load capacity of a single board: <ul style="list-style-type: none"> <li>- 8bit@60Hz: 6.55 million pixels; 10bit@60Hz: 4.91 million pixels</li> <li>- 8bit@120Hz: 3.27 million pixels; 10bit@120Hz: 2.45 million pixels</li> <li>- 8bit@240Hz: 1.63 million pixels; 10bit@240Hz: 1.22 million pixels</li> </ul> </li> <li>• Load capacity of a single Ethernet port: <ul style="list-style-type: none"> <li>- 8bit@60Hz: 0.65 million pixels; 10bit@60Hz: 0.49 million pixels</li> <li>- 8bit@120Hz: 0.32 million pixels; 10bit@120Hz: 0.24 million pixels</li> <li>- 8bit@240Hz: 0.16 million pixels; 10bit@240Hz: 0.12 million pixels</li> </ul> </li> <li>• The output image of each port can be set freely within the device control range.</li> <li>• Indicator status (2 indicators per port): <ul style="list-style-type: none"> <li>- Steady on (power indicator): Normal power supply.</li> <li>- Blinking (data indicator): Normal signal output.</li> </ul> </li> </ul> |
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| X1000UT05: 2×Fiber ports     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Details                      |  <ul style="list-style-type: none"> <li>• 2×10G fiber ports (1 main and 1 backup).</li> <li>• Works with a dedicated optical fiber transceiver. Each fiber port can be converted to 10×GbE ports.</li> <li>• By default, this board provides dual-core LC interface, with a transmission distance of 2km and a wavelength of 1,310nm. It can also work with other optical modules (optional accessories).</li> <li>• Automatic backup, no configuration required. Port 1 serves as the main output port and port 2 as the backup port which backs up data from port 1 automatically.</li> <li>• Load capacity of port 1: <ul style="list-style-type: none"> <li>- 8bit@60Hz: 6.55 million pixels; 10bit@60Hz: 4.91 million pixels</li> <li>- 8bit@120Hz: 3.27 million pixels; 10bit@120Hz: 2.45 million pixels</li> <li>- 8bit@240Hz: 1.63 million pixels; 10bit@240Hz: 1.22 million pixels</li> </ul> </li> <li>• The output image of port 1 can be set freely within the device control range.</li> </ul>                                                                                                |
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| X1000UT18: HDMI2.0 port      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

|                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |                    |             |          |                                    |                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------|-------------|----------|------------------------------------|-----------------|
| Details                                                                                                                                                     | <div></div> <ul style="list-style-type: none"><li>• 1×HDMI2.0 port, 1×4K@60Hz output.</li><li>• A single board supports a maximum resolution of 4096×2160@60Hz and a minimum of 800×600@60Hz.</li><li>• Custom output resolutions:<ul style="list-style-type: none"><li>- Maximum width: 8,192 pixels (8192×1080@60Hz).</li><li>- Maximum height: 8,188 pixels (1024×8188@60Hz).</li></ul></li><li>• 8/10bit output supported.</li><li>• The output image of each port can be set freely within the device control range.</li><li>• RGB 4:4:4/YCbCr 4:2:2 output supported.</li></ul> |           |                    |             |          |                                    |                 |
|                                                                                                                                                             | Technical Specifications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Output    | Resolution         | Color space | Sampling | Color depth                        | Frame rate (Hz) |
| 4K                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           | 4096×2160          | RGB         | 4:4:4    | 8bit                               | 30, 59. 94, 60  |
| 2K                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 3840×2160 | RGB                | 4:4:4       | 8bit     |                                    |                 |
|                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1920×1200 | RGB                | 4:4:4       | 8bit     | 30, 59. 94, 60, 100,               |                 |
| Others                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1920×1080 | RGB                | 4:4:4       | 10bit    | 119, 120, 144                      |                 |
|                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           | YCbCr              | 4:2:2       | 10bit    | 30, 59. 94, 60, 100, 119, 120, 144 |                 |
| <div> Note: Only a part of supported resolutions are listed above.</div> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |                    |             |          |                                    |                 |
| X1000UT01: 4×DVI ports                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |                    |             |          |                                    |                 |
| Details                                                                                                                                                     | <div></div> <ul style="list-style-type: none"><li>• 4×DVI ports, 4×2K@60Hz outputs.</li><li>• A single port supports a maximum resolution of 1920×1200@60Hz and a minimum of 800×600@60Hz.</li><li>• Custom output resolutions:<ul style="list-style-type: none"><li>- Maximum width: 4,096 pixels (4096×512@60Hz).</li><li>- Maximum height: 4,096 pixels (512×4096@60Hz).</li></ul></li><li>• The output image of each port can be set freely within the device control range.</li><li>• 8bit, RGB 4:4:4 output by default.</li></ul>                                             |           |                    |             |          |                                    |                 |
|                                                                                                                                                             | Technical                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Output    | Maximum resolution | Color space | Sampling | Color depth                        | Frame rate (Hz) |

|                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |             |          |             |                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------|----------|-------------|----------------------------|
| Specifications                                                                                                                                   | 2K                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1920×1200          | RGB         | 4:4:4    | 8bit        | 29. 97, 59. 94, 30, 50, 60 |
|                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1920×1080          | RGB         | 4:4:4    | 8bit        | 29. 97, 59. 94, 30, 50, 60 |
|                                                                                                                                                  |  Note: Only a part of supported resolutions are listed above.                                                                                                                                                                                                                                                                                                                                                                                  |                    |             |          |             |                            |
| X1000UT02: 4×HDMI ports                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |             |          |             |                            |
| Details                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |             |          |             |                            |
|                                                                                                                                                  | <ul style="list-style-type: none"><li>• 4×HDMI1.4 ports, 4×2K@60Hz outputs.</li><li>• A single port supports a maximum resolution of 1920×1200@60Hz and a minimum of 800×600@60Hz.</li><li>• Custom output resolutions:<ul style="list-style-type: none"><li>- Maximum width: 4,096 pixels (4096×512@60Hz).</li><li>- Maximum height: 4,096 pixels (512×4096@60Hz).</li></ul></li><li>• The output image of each port can be set freely within the device control range.</li><li>• 8bit, RGB 4:4:4 output by default.</li></ul> |                    |             |          |             |                            |
| Technical Specifications                                                                                                                         | Output                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Maximum resolution | Color space | Sampling | Color depth | Frame rate (Hz)            |
|                                                                                                                                                  | 2K                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1920×1200          | RGB         | 4:4:4    | 8bit        | 29. 97, 59. 94, 30, 50, 60 |
|                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1920×1080          | RGB         | 4:4:4    | 8bit        | 29. 97, 59. 94, 30, 50, 60 |
|  Note: Only a part of supported resolutions are listed above. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |             |          |             |                            |

## 5.3 Preview and Monitoring Board

### X100PROV2001: Preview and monitoring board

#### Details

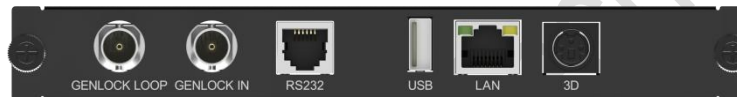


- 1×HDMI1.4 port, for previewing inputs and monitoring outputs, with a fixed output of 1920×1080@60Hz.
- Supports previewing inputs and monitoring outputs via web-based software.

## 5.4 Main Board

### VMBRK39V2001: Main board

#### Details



- 1×GENLOCK IN port, for Genlock signal input; supports Bi-Level and Tri-Level sync.
- 1×GENLOCK LOOP port, for Genlock signal output.
- 1×RJ11/RS232 serial port (baud rate: 115,200), for connecting to a central controller or other devices.
- 1×USB 3.0 port, for upgrading the program and image file via a USB drive.
- 1×RJ45 GbE port, for connecting to a control PC for communication; for connecting to a router, switch, or PC; for Web control.
- 1×3D VESA port, works with a 3D emitter and active 3D glasses (optional accessories).

## 6 Applications

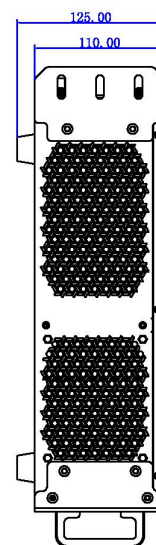
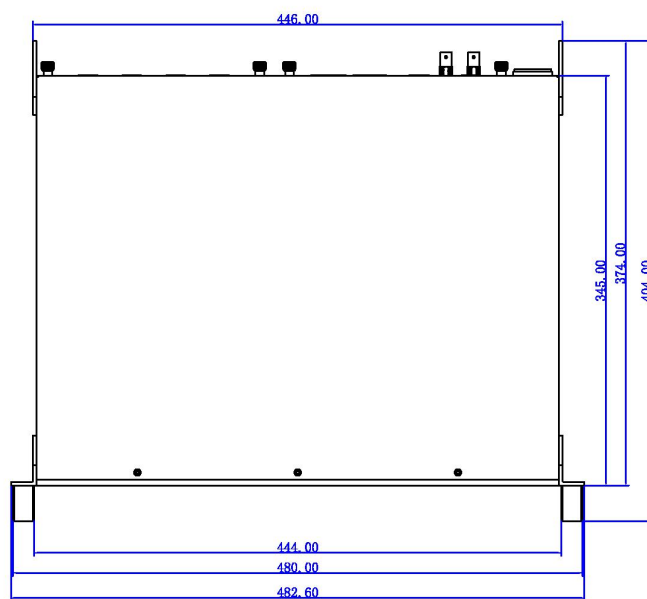
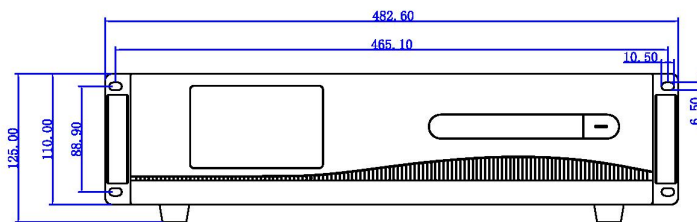


 Note: The image shown is for illustration purpose only. Please refer to the actual product.

## 7 Device Specifications

|                              |                                         |                                                                                               |
|------------------------------|-----------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>Model</b>                 |                                         | X100 Pro-2U                                                                                   |
| <b>Chassis</b>               |                                         | 2U                                                                                            |
| <b>Dimensions</b>            | <b>Device (W×H×D)</b>                   | 482.6mm (19.0") × 110.0mm (4.3") × 404.0mm (15.9")                                            |
|                              | <b>Packing (W×H×D)</b>                  | 590.0mm (23.2") × 223.0mm (8.8") × 470.0mm (18.5")                                            |
| <b>Weight</b>                | <b>Net</b>                              | 9.5kg (20.95lbs)                                                                              |
|                              | <b>Gross</b>                            | 11.38kg (25.09lbs)                                                                            |
| <b>Electrical parameters</b> | <b>Power supply</b>                     | AC 100~240V, 50/60Hz                                                                          |
|                              | <b>Average board power</b>              | 10W                                                                                           |
|                              | <b>Maximum power of a single device</b> | 110.8W                                                                                        |
| <b>Operating environment</b> | <b>Temperature</b>                      | 10° C~50° C / 50°F~122°F                                                                      |
|                              | <b>Humidity</b>                         | 0%RH~85%RH, non-condensing                                                                    |
| <b>Storage environment</b>   | <b>Temperature</b>                      | -10° C~60° C / 14°F~140°F                                                                     |
|                              | <b>Humidity</b>                         | 0%RH~95%RH, non-condensing                                                                    |
| <b>Placement conditions</b>  |                                         | This device can only be placed horizontally. Do not invert the device or place it vertically. |

## 8 Reference Dimensions



Unit: mm

## Statement

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