

12G-SDI

3RU Rack Mount Monitor

Dual 7" 1920×1200 Resolution, features with
1000 nits high brightness

User Guide



IMPORTANT SAFETY INSTRUCTIONS:

- Please read User Guide before using this product.
- Please keep User Guide for future reference.

FEATURES:

- 2x7" 12G-SDI, 2xHDMI2.0;
- Remote control;
- 160° Wide viewing angles;
- High resolution: 1920×1200;
- High brightness: 1000cd/m²;
- High contrast: 1200:1;
- HDR (High Dynamic Range) supporting HLG, ST 2084 300/ 1000/ 10000
- Markers & Aspect Mat (Center Marker, Aspect Marker, Safety marker, User Marker)
- Assistant (Waveform, Peaking, False Color, Exposure, Histogram)
- FN User-definable function button
- Firm & thin design.

CAUTIONS:

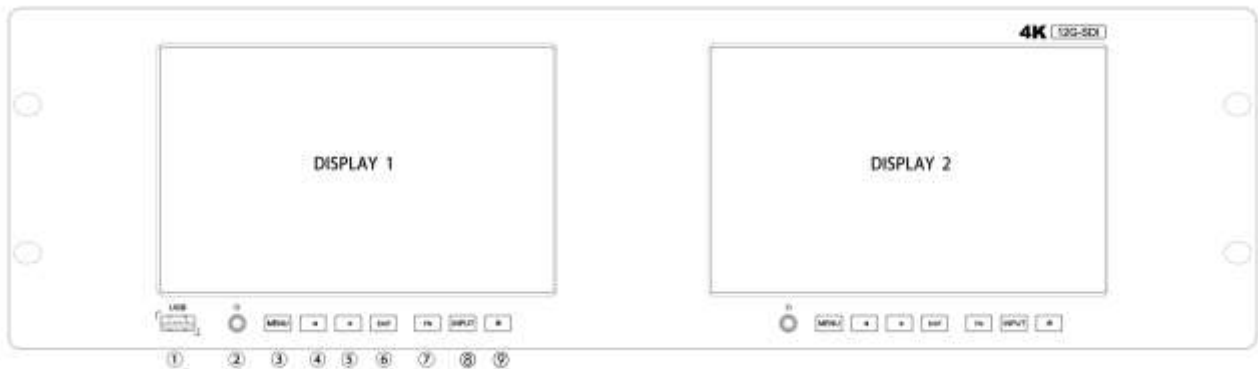
1. Please do not place the display screen towards the ground.
2. Please avoid heavy impact or drop onto the ground.
3. Please do NOT use chemical solutions to clean this product. Please wipe with a clean soft cloth to maintain the brightness of the surface.
4. Please do not block any vent hole.
5. Please follow the instructions and trouble-shootings to adjust the product. Other improper adjustment may result in damage. Any further adjustment must be performed or conducted by a qualified technician.
6. Please unplug the power if long-term no-use, or thunder weather.

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1. PRODUCT DESCRIPTION

1.1 Front Housing

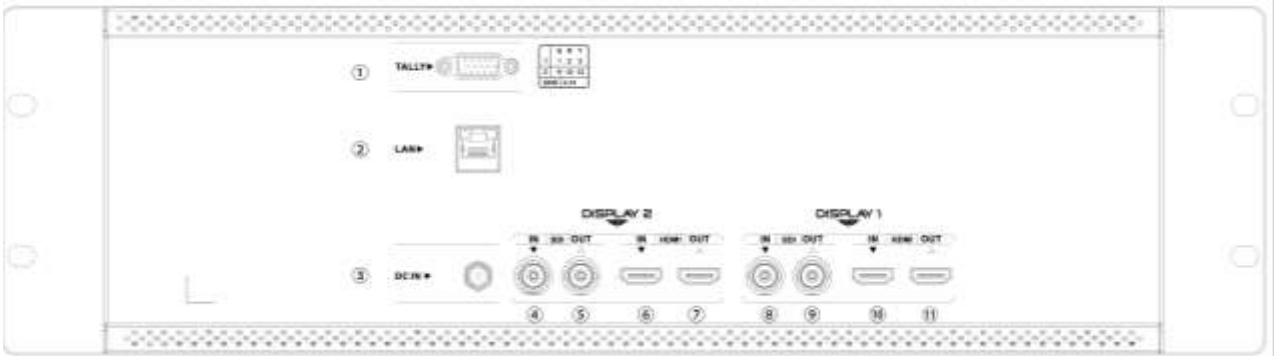


1. USB: input (Only used for program upgrade, do NOT use if non-professionals).
2. Ear Jack
3. MENU button: To activate OSD (on-screen display) menu.
4. ◀ Left selection button: to select item on OSD menu and adjust its value; Press to decrease the value of brightness, contrast, saturation, peaking level, sharpness, volume.
5. ▶ Right selection button: to select item on OSD menu, adjust its value and confirm it; Press to increase the value of brightness, contrast, saturation, peaking level, sharpness, volume.

Note: When press ◀ or ▶ button, then press MENU button, it will activate user-definable menu OSD (Brightness, Contrast, Saturation, Peaking Level, Sharpness, Volume). User can select the shortcut item based on different demand. Volume is default.


6. EXIT
7. FN: Customized Function button; to launch function menu quickly. Peaking as default.
8. INPUT: circularly switch among of HDMI, SDI.
9. POWER on/off button


1.2 Back Housing



Note: The interfaces within DISPLAY 1 provide signal source for left monitor. The interfaces within DISPLAY 2 provide signal source for right monitor.

1.  TALLY interface and interface definition.

2.  LAN port. (Connected to PC network interface for function adjustment.)

3.  DC 12V power input.

4 & 8.  SDI IN SDI input

5 & 9.  SDI OUT SDI output.

6 & 10  HDMI input

7 & 11  HDMI input

2. MENU SETTING

Before setting the functions, please make sure the device is connected correctly.

2.1 Shortcut keys

2.1.1 ◀ / ▶ Function Menu

Under non menu screen, press "◀ / ▶" buttons to activate function bar, and then press the "MENU" button can activate the shortcut menu bar to select the function from Volume, Back light, Brightness, Contrast, Saturation, Peaking Level, Sharpness.

Use the < or > button to adjust the value, default function is [Backlight].

2.1.2 FN user-definable function button:

Long press FN button for 3-5 seconds to pop up shortcut menu on the screen. As shown in right Figure (default menu is displayed in white font). Use "◀ / ▶" buttons to select the desired item.

Functions of FN button can be customized: Center Marker, Aspect Marker, Safety Marker, Overscan, scan, Aspect, Check field, H/V delay, Freeze, Color Bar, Peaking, False color, Exposure, Histogram, Full Mode, Waveform, TimeCode, Mute, Level Meter.












2.2 MENU Operation

Press “**MENU**” button on the device after power on. The menu used for setting function will display on the screen.

Press ◀/▶ buttons to select the sub-menu; then press **MENU** button to confirm it; after that, press **EXIT** button to return to main menu.

2.2.1 PICTURE

| PICTURE | | |
|---|------------|---------|
|  | Brightness | 50 |
|  | Contrast | 50 |
|  | Saturation | 50 |
|  | Tint | 50 |
|  | Sharpness | 0 |
|  | Back Light | 100 |
|  | RGB Range | Limited |
|  | HDMI EDID | 4K |
|  | HDMI | |

- **Brightness**
Control the degree of brightness between 0-100.
- **Contrast**
Control contrast ratio between 0-100.
- **Saturation**
Adjust the color intensity between 0-100.
- **Tint**
Adjust tint between 0-100.
- **Sharpness**
Control sharpness of the image between 0-100.
- **Back Light**
Adjust the level of the back light from 0 to 100.

- **RGB Range**

Use this item to choose the RGB range of the HDMI input: [Full], [Limited].

- **HDMI EDID**

Select the HDMI EDID from between [4K] and [2K]. This item enables PC or other devices to recognize the property of this monitor and makes the images look excellent on the screen.

- **HDR.**

When activated, the display reproduces a greater dynamic range of luminosity, allowing lighter and darker details to be displayed more clearly. Effectively enhancing the overall picture quality.

Select one of the HDR presets: Off, [ST 2084 300], [ST 2084 1000], [ST 2084 10000] and [HLG].



- **Color Temp.**

Use this item to choose one of the color temperature presets: [5500K], [6500K], [7500K], [9300K], [User].

Note: Only available under [User] mode to adjust R/G/B Gain and Offset.

- **R/G/B Gain**

Adjust the R/G/B Gain of the current Color Temperature from 0 to 255. Default value: 128.

- **R/G/B Offset**

Adjust the R/G/B Offset of the current Color Temperature from 0 to 511. Default value: 256.

2.2.2 MARKER

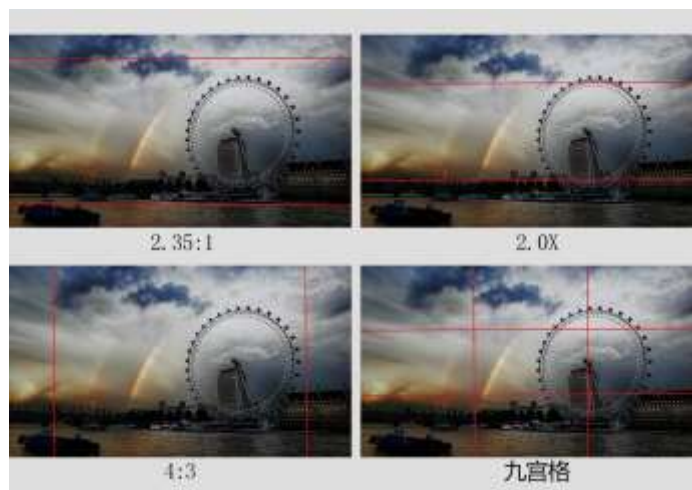
| MARKER | | |
|---|---------------|-------|
|  | Center Marker | Off |
|  | Aspect Marker | Off |
|  | Safety Marker | Off |
|  | Marker Color | White |
|  | Aspect Mat. | Off |
|  | Thickness | 2 |
|  | SDI | |

- **Center Marker**

Select [On] to display the center marker “+” and [Off] not to display it.

- **Aspect Marker**

Select the aspect ratio of the marker: [Off], [16:9], [1.85:1], [2.35:1], [4:3], [3:2], [1.3X], [1.5X], [2.0X], [2.0X MAG], [Grid].



- **Safety Marker**

- Select the size of the safety markers: [95%], [93%], [90%], [88%], [85%], [80%].

Note: When this item is used with the aspect marker, it is only in aspect marker.

- **Marker Color**

Select the color of marker displayed on the screen: [Red], [Green], [Blue], [White], [Black].

- **Aspect Mat.**








When activated, it can be selected from 1-7 (Step value is 1).



- **Thickness**

Adjust the thickness of all the marker lines from 1-7 (Step value is 1).

2.2.3 FUNCTION

| DISPLAY | | |
|---|-------------|--------|
|  | Scan | Aspect |
|  | Aspect | Full |
|  | Overscan | Off |
|  | H/V Delay | Off |
|  | Check Field | Off |
|  | Freeze | Off |
|  | SDI | |

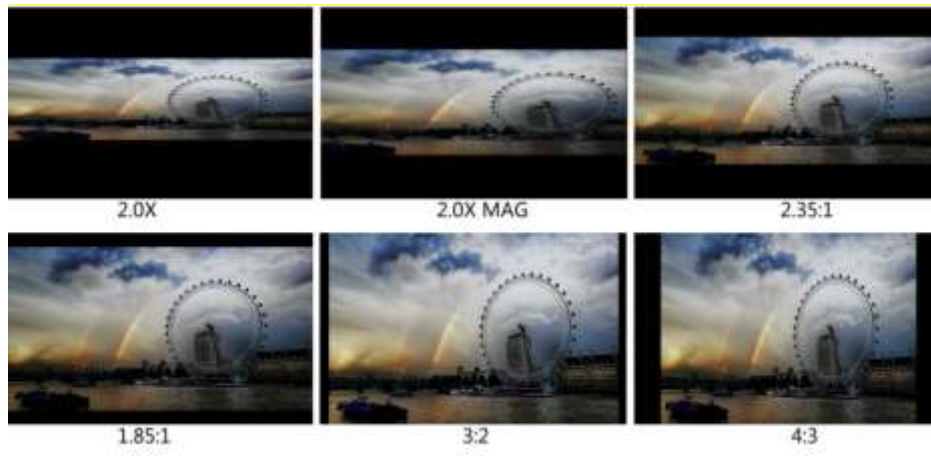
- **Scan**

Adjust the scan mode among [Aspect], [Pixel To Pixel].

Note: Aspect and Overscan functions only can be adjusted under [Aspect] mode.

- **Aspect**

Select the aspect of the image among [Full], [16:9], [1.85:1], [2.35:1], [4:3], [3:2], [1.3X], [1.5X], [2.0X], [2.0X MAG].



- **Overscan**

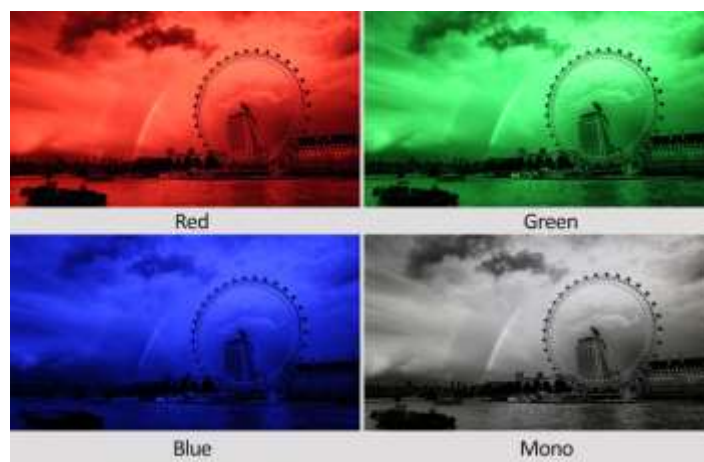
Use this item to activate or deactivate overscan.

- **H/V Delay**

Select one of the H/V modes: [OFF], [H], [V], [H/V]. When H/V Delay on, the blanking portions of the input signal will be displayed horizontally and vertically.

- **Check Field**










Select one of check field modes: [Off], [Red], [Green], [Blue], [Mono].



- **Freeze**

Choose [On] to capture one frame of current image on the screen, and choose [Off] to close freeze function.

2.2.4 WAVEFORM

| WAVEFORM | | |
|---|-------------------|-----|
|  | Full Mode | Off |
|  | Waveform | RGB |
|  | Transparency | 50% |
|  | Peaking | Off |
|  | Peaking Color | Red |
|  | Peaking Level | 50 |
|  | False Color | Off |
|  | False Color Table | On |
|  | SDI | |

- **Full Mode**

Use this item to activate or deactivate the Full Mode. Select the waveform mode from among [Y], [YCbCr], [RGB]. [Histogram], [Level Meter].

- **Waveform**

- Use this item to activate or deactivate Waveform. Select the waveform mode from among [Y], [YCbCr], [RGB].

- [Y]: Display Y Waveform.

- [YCbCr]: Display YCbCr Waveform.

- [RGB]: Display R/G/B Waveform

- **Transparency**

Adjustment of transparency can support histogram, level meter. Transparency can be selected from among [Off], [25%], and [50%].

- [Off]: The background of waveform is shown at black.

- [25%]: The background of waveform is shown at 25% intensity.

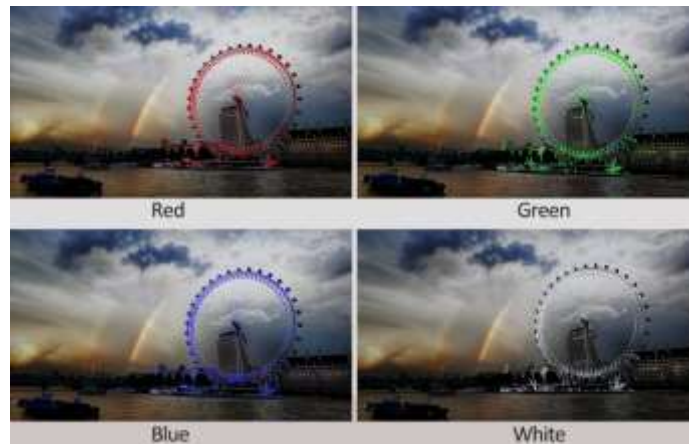
- [50%]: The background of waveform is shown at 50% intensity.

- **Peaking**

Use this item to activate or deactivate the peaking function.

- **Peaking Color**

Select one of the peaking colors: [Red], [Green], [Blue], [White], [Black].



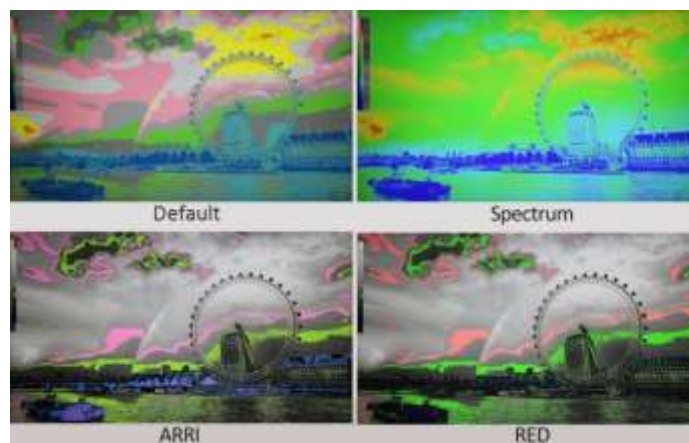
- **Peaking Level**

Use this item to adjust the level of peaking from 1-100. The higher peaking level is, the more obvious peaking effect is.

- **False Color**

Use this item to activate or deactivate the false color function.

When activated, [Default], [Spectrum], [ARRI], [RED] are for optional.



- **False Color Table**

Use this item to activate or deactivate the false color table.

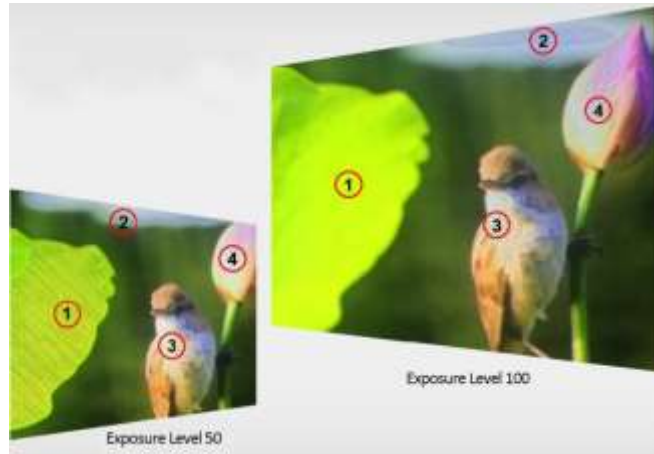
- **Exposure**

Use this item to activate or deactivate the exposure function.

When activated, exposure works if the input signal exceeds the designated exposure level.

- **Exposure Level**

Use this item to adjust the level of exposure between 50-100 IRE.



- **Histogram**

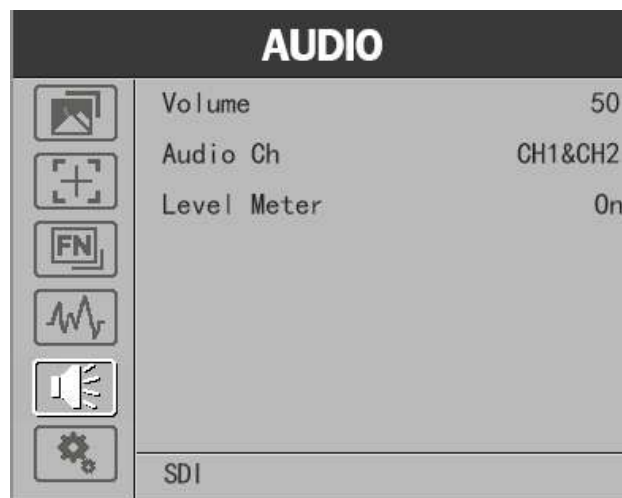
Use this item to activate or deactivate histogram.

- **Time Code**

Use this item to activate or deactivate the Time Code. When activated, [LTC], [VITC] are for optional.

Note: Time code is only available under SDI mode.

2.2.5 AUDIO



- **Volume**

Adjust the volume among 0-100.

- **Audio Ch**









In HDMI mode, select the audio channel: Ch1&Ch2、Ch3&Ch4、Ch5&Ch6、Ch7&Ch8.

In SDI mode, select the audio channel: Ch1&Ch2、Ch3&Ch4、Ch5&Ch6、Ch7&Ch8、Ch9&Ch10、Ch11&Ch12、Ch13&Ch14、Ch15&Ch16.

- **Level Meter**

Use this item to activate or deactivate the Lever Meter, option: 2 Channel, 4 Channel, 8 Channel, 16 Channel.

2.2.6. SYSTEM

| SYSTEM | | |
|--|------------------|--------------|
|  | Language | English |
|  | Color Bar | Off |
|  | OSD Timer | 10s |
|  | OSD Transparency | 10s |
|  | OSD H Position | 50 |
|  | OSD V Position | 50 |
|  | DHCP | Off |
|  | IP Address | 192.168.1.88 |
|  | SDI | |

- **Language**

Option: [English], [Chinese].

- **Color Bar**

Turn on/off color bar. When the color bar on, it can be selected: [100%], [75%].

- **OSD Timer**

Option: [10s], [20s], [30s].

- **OSD H Position**

Option: 0-100. Default: 50.

- **OSD V Position**

Option: 0-100. Default: 50.

- **DHCP**

- [On]: The monitor will automatically get an IP address from network for remote control via various programs.

- [Off]: Manually configure IP address.

- **IP Address**

Manually configure IP address: xxx.xxx.xxx.xxx

Note: When [DHCP] on, IP address cannot be manually set.

- **Sub Mask**

Manually configure Sub net Mask: xxx.xxx.xxx.xxx

Note: When [DHCP] on, Sub net Mask cannot be manually set.

- **Gateway**

Manually configure Gateway: xxx.xxx.xxx.xxx

Note: When [DHCP] on, Gateway cannot be manually set.

- **No Signal Mode**

Set the status of the display in no-signal mode, optional: normal, sleep, shutdown.

- **Reset Option:** [Off], [On]

3. PARAMETERS

| | |
|-----------------------|---------------------------------------|
| Panel | 2×7" |
| Physical Resolution | 1920×1200 |
| Brightness | 1000 cd/m2 |
| Contrast | 1200: 1 |
| Viewing Angle | 160° / 160°(H/V) |
| Input Voltage | DC12-24V |
| Input Signal | 2xHDMI2.0, 2x12G-SDI, TALLY, LAN, USB |
| Output Signal | 2xHDMI2.0, 2x12G-SDI, EAR |
| Power Consumption | ≤21W (12V) |
| Operating Temperature | 0°C ~ 50°C |
| Storage Temperature | -20°C ~ 60°C |
| Dimension (LWD) | 480*131.6*32.5 mm |
| Weight | 1.83Kg |

4. ACCESSORIES



- | | |
|-------------------------|---------|
| 1. DC 12V Power Adapter | 1 piece |
| 2. TALLY Connector | 1 piece |
| 3. User Manual Card | 1 piece |

5. TROUBLE SHOOTING

1. Only black-and-white display:

Check whether the color saturation is properly set up or not.

2. Power on but no pictures:

Check whether the cables of HDMI, SDI are correctly connected or not. Please use the standard power adapter equipped with the product package. Improper power input may cause damage.

3. Wrong or abnormal colors:

Check whether the cables are correctly and tightly connected or not. Broken or loose pins of the cables may cause a bad connection.

4. When power on, the picture shows size error:

Press "MENU → DISPLAY → Overscan" to zoom in/out pictures automatically when receiving HDMI signals

5. Other problems:

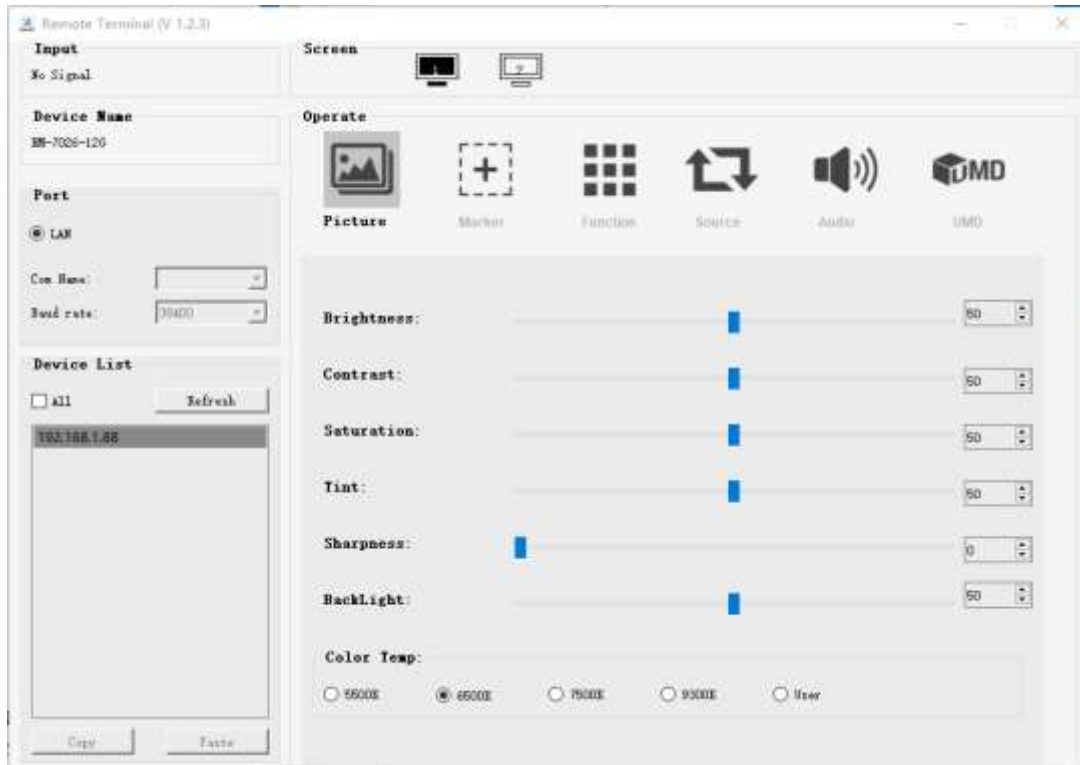
Please press "MENU" button and choose "SYSTEM → Manufacturer Default → ON", then press "ENTER" button to confirm it.

Note: due to constant effort to improve products and product features, specifications may change without prior notice.

Appendix: Remote Terminal Instructions

Remotely control the device by Remote Terminal application.

1) Home screen



Picture: The home screen of the application

- Input: Display the signal format of the connected device. For example, there is “No Signal” when no device is connected or no signal is input.
- Device Name: Display the Model No. of the connected device.
- Port: Select the connection way of the port when connecting a device, and support LAN communication protocol.
- Device List: Display all of the found peripheral device.
- Screen: Display the number of screens for the selected device and the current screen index.
- Operate: The operate includes Picture, Marker, Function, Source, Audio, UMD. See the software interface for the details.

2) Function

- Port Selection: Select the specific connection port according to the device interface and click “LAN” to switch.

- Device Search: Click “Refresh” button to search devices after configuring the port. There are all of the found devices in the device list after a successful search.
- Screen Choice: The “Screen” shows the number of the screens for the current device. For the device with multiple screens, use left mouse button to click the screen icon to select the corresponding screen for operation; use right mouse button to click the screen icon to copy the screen.
- Device Control: Click the icons of [Picture], [Marker], [Function], [Source], [Audio] and [UMD] to switch the control page of the corresponding function.
- Activate “All”: Simultaneously control all of the devices in the device list if there is two or more devices with the same model after activating “All”.
- Device Copy Function: If there are two or more devices with the same model in the device list, click one of them and click “Copy” button to copy the source device, and then click the target device and click “Paste” button to copy the configuration of the source device to the target one.