

17.3"/ 21.5"

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# Broadcast Studio Monitor

Support 4K HDMI Input & Output



# User Manual

## **Product Overview**

Thank you for using our photography, broadcast color LCD monitor. This monitor adopts digital signal processing circuit and professional LCD screen, which makes it high brightness, low power consumption, stable performance etc. It also has strong compatibility, adjustable color temperature control. Its advanced features include Focus Assist, Check Field, Camera Mode, Pixel to Pixel, Screen Marker, Image Flip, etc. It is an ideal NLE (Nonlinear Edit) matching monitor.

To meet different customers' needs, our monitor has High-Definition Multimedia Interface signals HDMI, the serial digital interface signals SDI, and YPbPr, Video, Audio (L/R) , DVI and RS485 interfaces.

**To insure best use of the unit, please read the user's manual carefully**

## **CAUTION**

1. Please use the adapter in the accessory, and use the qualified battery if need.
2. Please do NOT expose this product directly in the sunlight, heat, and humid conditions.
3. Please keeps the monitor away from the strong light while using this product to ensure the image effect and long-term use.
4. Please avoid heavy impact or drop onto the ground.
5. Please do NOT use chemical solutions to clean this product. Please wipe the monitor with a clean soft cloth to maintain the brightness of the surface.
6. To avoid damaging the product, please do not take apart or repair the unit by yourself without adjustable component in the unit.

# Product Feature

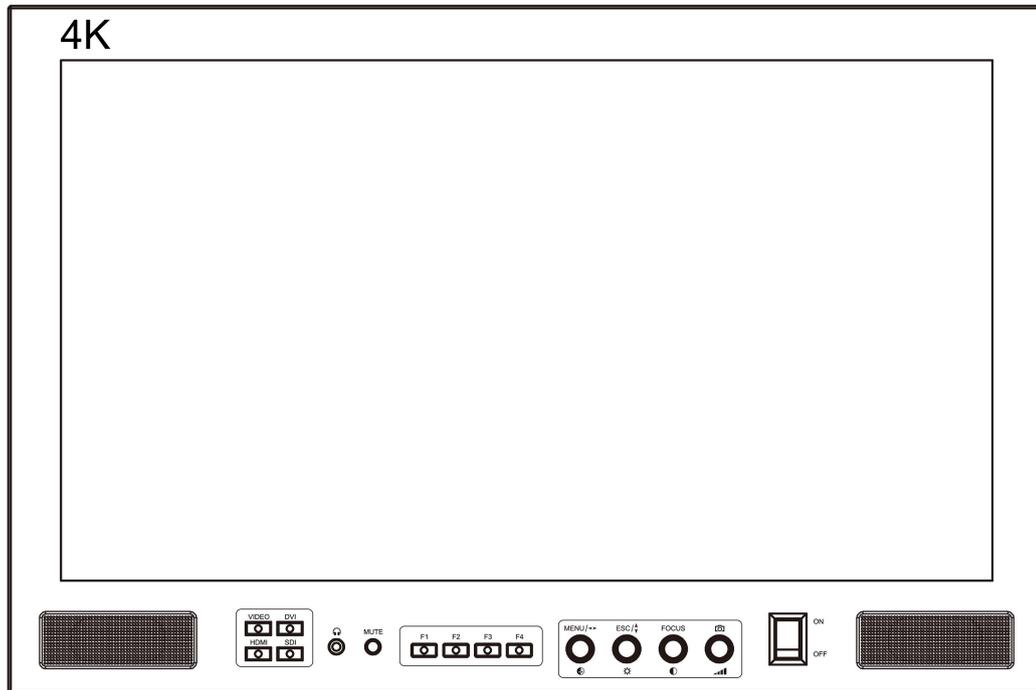
- TSL UMD and text TALLY display
- Focus Assist function
- Check Field: To switch among Mono, Red, Green, Blue Off.
- Camera Mode Function
- P2P: The display mode that makes the resolution of the image is consistent with display of the physical resolution.
- Screen Center Marker (cross mark) display setting
- Screen Marker: 96%, 93%, 90%, 85%, 80%, 2.35:1
- Image Flip: The H\_V Flip, H Flip, V Flip of the image around flip
- Image Freeze: The current picture still (capture function)
- Aspect Ratio: To change the display to ratio Just Scan, Panorama, Auto, Zoom 1, Zoom 2, 16:9, 4:3
- Image magnification function (Zoom All)
- U/D Zoom
- L/R Zoom
- Panel buttons F function custom settings
- LED backlight, Image display more brighter, screen does not flicker.
- Front panel stereo earphone output, built-in speaker
- Multiple signal output port, flexible use

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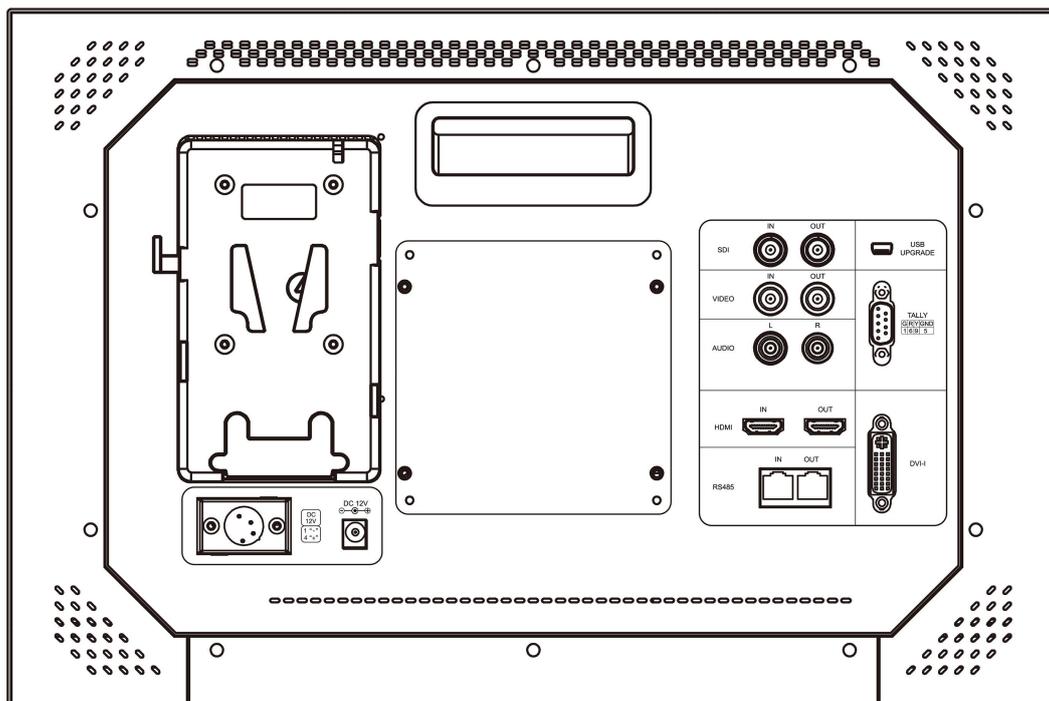
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# 1. Product Description

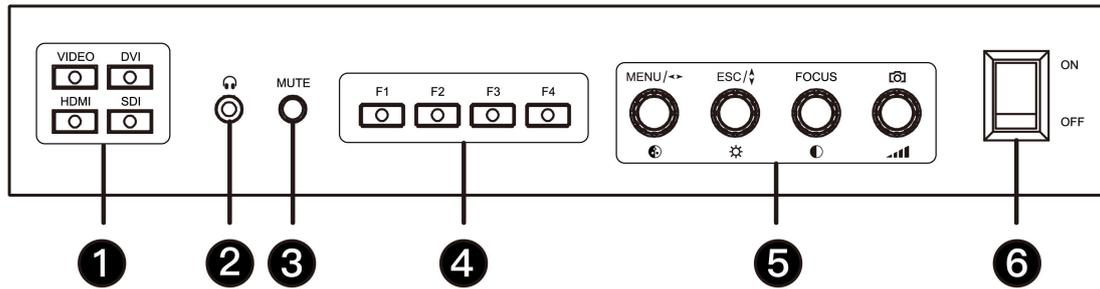
## 1.1 Front Panel



## 1.2 Rear Panel



### 1.3 Panel Button Instruction



#### ❶ Input Selection Button

Use the VIDEO, DVI, HDMI and SDI buttons to select the corresponding analog or digital input.

#### ❷ Stereo Headphone Jack

#### ❸ MUTE Button

#### ❹ User-Definable Function Buttons

Users can directly use four user-defined function buttons to operate or enter into F menu bar to set according to their own operating habits.

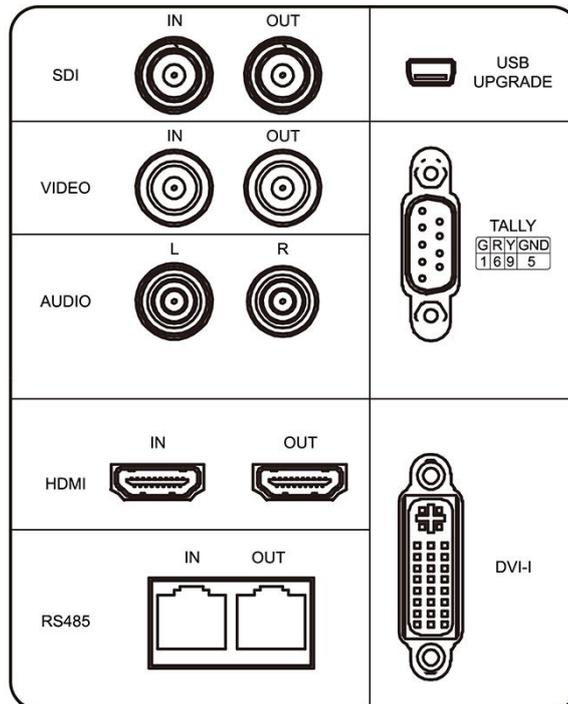
#### ❺ Multifunctional Knobs

Knobs	Function when OSD is not displayed	Function when OSD is displayed
<b>MENU</b> / 	Rotate knob to adjust image Saturation. Press it to enter the OSD menu.	Rotate knob to select or adjust the selected menu item. Press it to exit (confirm) the current menu settings.
<b>ESC</b> / 	Rotate knob to adjust image Brightness.	Rotate knob to select menu items up or down. Press it to exit the OSD menu.
<b>FOCUS</b> / 	Rotate knob to adjust image Contrast. Press it to enter "Focus Assist" function.	/

	Rotate knob to adjust Volume. Press it to enter "Camera Mode" Function.	/
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## ⑥ Power ON/ OFF Button

### 1.4 Rear Interfaces Instruction



**SDI IN/ OUT:** SDI input & output

**VIDEO IN/ OUT:** Composite video input & output

**AUDIO L/R:** L/R analog audio input

**HDMI IN/ OUT:** HDMI input & output

**RS485 IN/ OUT:** RS485 UMD input & output

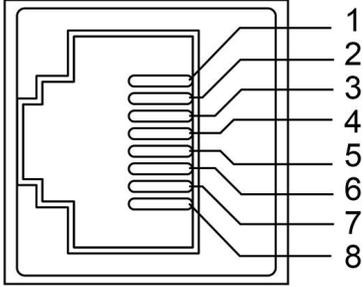
**USB UPGRADE:** USB upgrade port

**TALLY:** Tally (indicator) signal input

**DVI-I:** DVI-I input

## 1.5 RS485 Port Instruction

Monitor supports RS485 port to input UMD signal, the interface definition is as below:

 <p>RS485</p>	PIN	IN	OUT
	1	GND	GND
	2	GND	GND
	3	TXD -	RXD -
	4	RXD +	TXD +
	5	RXD -	TXD -
	6	TXD +	RXD +
	7	NC	NC
	8	NC	NC

## 1.6 Power Input Way

There are three ways of power supply to our monitor:

### a. Powered by the direct plug-in power input port supply.

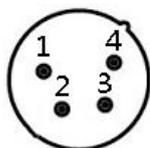
Please select DC power plug 5.5\*2.1mm supply and the polarity is



as image below:

### b. Via 4 pin XLR interface power supply, to share power with the camera or via power adapter input.

Polarity of the 4-pin XLR power input as below image, please note the polarity of the power input, otherwise it may damage monitor.



Pin number	Signal
1	GND
2	No connection
3	No connection
4	+12V

**c. Add battery to the monitor battery plate to supply the power.**

The product back case including battery plate is available for two types of batteries. Users can choose different battery plates according to their needs. (If the users have no requirement on the battery, the factory assembles Sony V-Mount Plate by default).

### 1.7 Battery Plates



**Panasonic Anton Plate**



**Sony V-Mount Plate**

We assemble the suitable battery plate for the customers according to the different requirements of the batteries. If the customers have no requirement on the battery, the factory assembles Sony V-Mount Plate by default.

**Remark:** According to the different specification of the battery, the capability is different, and the working time for the monitor will be different. Higher capability (working time) will be longer.

Without the charging circuit design for the monitor, please remove the battery to charge with the battery charger.

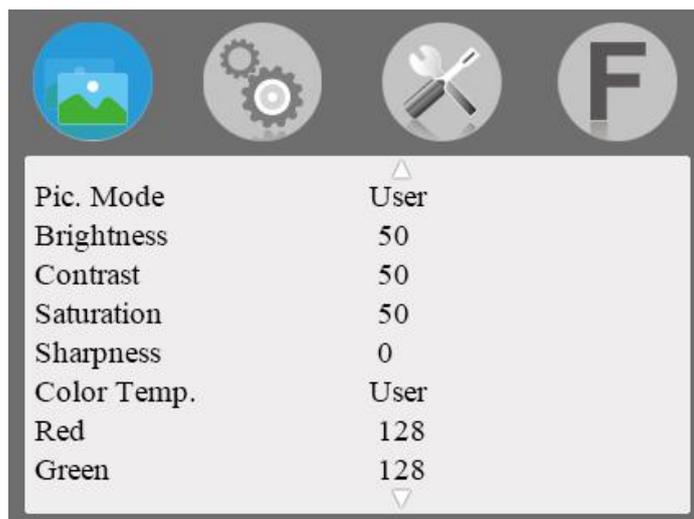
**Suggestion: Better to remove the battery if don't use this product in a long time.**

## 2. Menu Function Instruction

P2P, Zoom ALL, L/R Zoom, U/D Zoom, Aspect Ratio all functions that associated with the image magnification function are non-supported in 4K Mode.



### Image Color (including 2 pages)



※ **Pic. Mode: Standard, Dynamic, Mild, User**

Select 'user' to adjust Brightness, Contrast, Saturation, Sharpness.

※ **Brightness: 0~100**

To adjust image's brightness

※ **Contrast: 0~100**

To adjust the brightest and the darkest ratio of the image, please note the sense of picture when adjust, proportion too high or too low will make the picture lose the color.

※ **Saturation: 0~100**

To adjust color concentration.

※ **Sharpness: 0~100**

Also called 'Resolution', is an indicator for the image plane definition and image edge sharpness. If sharpness is higher, then the details contrast on the image is higher, the image is more clearly.

※ **Color Temp.: 6500, 9300, User**

When select 'user', adjust the R/G/B to meet the different user's requirement for the different Color Temp.

※ **Tint: 0~100**

To adjust the image cool and warm hue.



**Setting (including 3 pages)**

● **Menu of Page One**



※ **Language: English, 中文, Español, Português, Français, Nederlands, Deutsch, 日本語**

To select menu display language.

※ **Aspect Ratio: Just Scan, Panorama, Auto, Zoom 1, Zoom 2, 16:9, 4:3.**

To select the display ratio of image.

※ **No Signal: Black Screen, White Screen, Red Screen, Green Screen, Blue Screen**

Color options of screen background when no signal.

※ **OSD Trans.: High, Middle, Low, Off**

To adjust the level of transparent.

※ **OSD H: 0~100**

To adjust the OSD position in horizontal.

※ **OSD V: 0~100**

To adjust the OSD position in vertical.

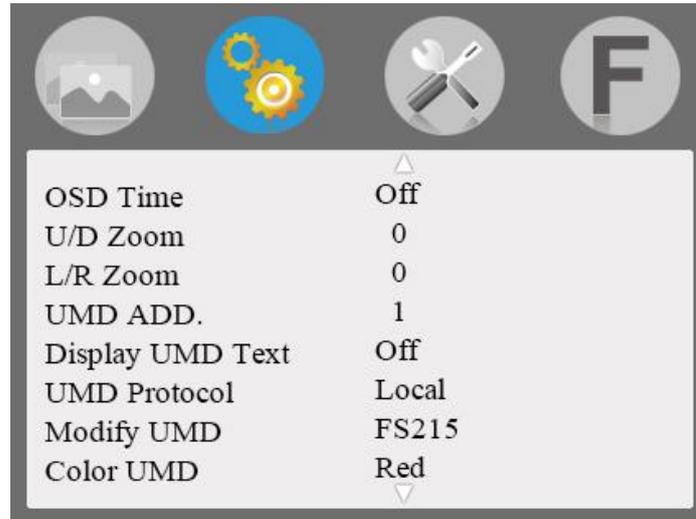
※ **Camera Mode: 1080i, 480P, Off**

The monitor video has real-time images. Non-deformation , NO black screen, NO delay, perfect without distortion.

※ **Zoom All: 0~100**

To adjust the image to Zoom in or Zoom out.

## ● Menu of Page Two



※ **OSD Time: Off, 10Sec, 20Sec, 30Sec**

To adjust the menu display time.

※ **U/D Zoom: 0~100**

To adjust the proportion of the image Up and Down to Zoom In or Zoom Out.

※ **L/R Zoom: 0~100**

To adjust the proportion of the image Left and Right to Zoom In or Zoom Out.

※ **UMD ADD.: 0~126**

Addressing UMD TSL address.

※ **Display UMD Text: Off, On**

※ **UMD Protocol: Local, TSL V3.1/V4.0**

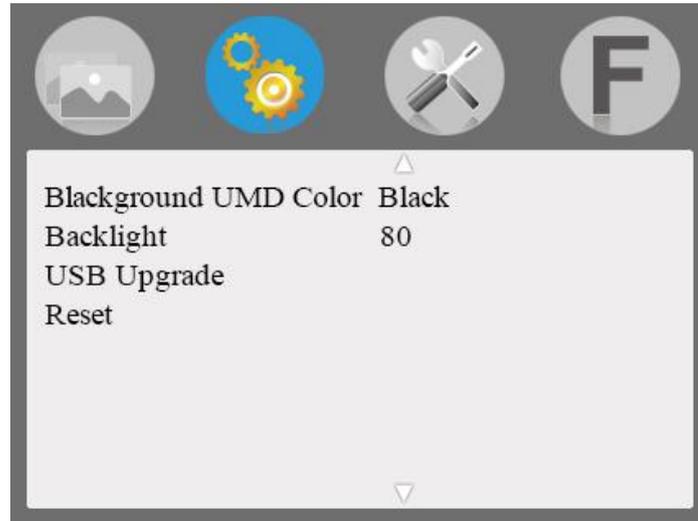
※ **Modify UMD**

To address UMD text, max to address 16 letters.

※ **Color UMD: Red, White, Black, Orange, Green**

UMD font color selection.

## ● Menu of Page Three



※ **Background UMD Color: Off, Red, Green, Orange, Black, White**

UMD background color selection.

※ **Backlight: 10~100**

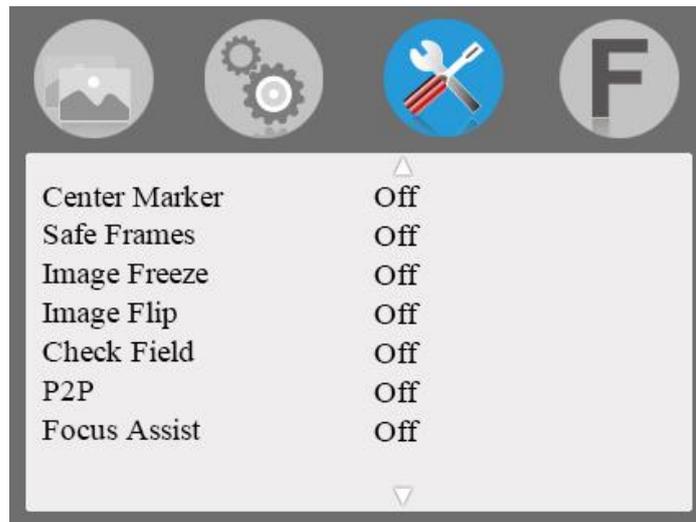
To adjust the backlight brightness of screen.

※ **USB Upgrade:** When need to upgrade the software, copy the file to the U disk, then through the USB cable to connect with upgrade USB port, then rotate ◀▶ to confirm. After the upgrade, monitor will automatically restart. Do NOT plug a USB cable into this connector without contacting the factory.

※ **Reset:** Rotate ◀▶ button, back to original setting.



## Function



※ **Center Marker: On, Off**

To set center mark (cross mark) display

※ **Safe Frames: 80%, 85%, 90%, 93%, 96%, 2.35:1, Off**

To adjust screen marker.

※ **Image Freeze: On, Off**

The current picture still (capture function)

※ **Image Flip: H\_V Flip, H Flip, V Flip, Off**

Image Flip function.

※ **Check field: Red, Green, Blue, Mono, Off**

To display the picture in monochrome (black & white) or in individual primary colors.

※ **P2P: On, Off**

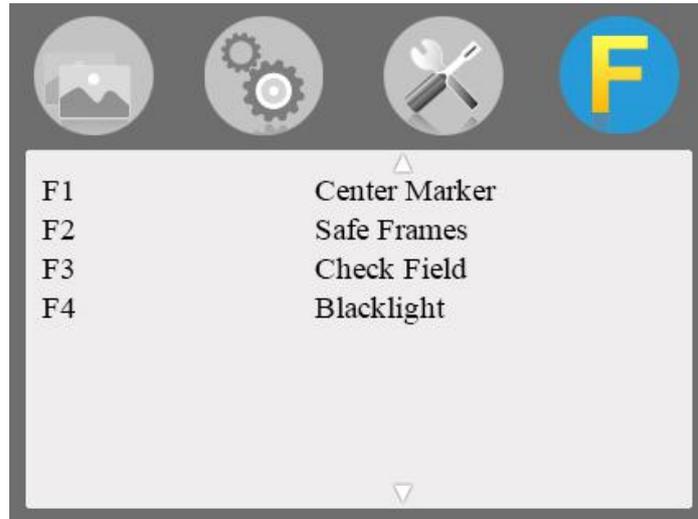
The display mode makes the resolution of the image consistent with display of the physical resolution

※ **Focus Assist: On, Off**

Select this function, Peaking (Superimpose red highlight over parts of the monochrome image in focus). Focus to view image auxiliary functions when used as the camera viewfinder.



## Shortcut Button Setting



- ※ **F1: Center Marker, Safe Frames, Check Field, Aspect Ratio, Image Flip, P2P, Image Freeze, Backlight, Color Temp.**

Use up and down knob  to select choose F1, then rotate  button, then rotate  button to select one of options as definition function. Press **MENU** button to confirm and rotate  button back to next F setting.

- ※ **F2/ F3/ F4: Customized button, see F1**

### 3. Support Signal Formats

<b>Video Signals</b>	Support signal formats
<b>Video</b>	PAL/NTSC auto recognize
<b>Y/Pb/Pr</b>	1080/50i/60i/50p/60p; 720/50p, 720/60p; 480i/480p; 576i/576p
<b>HDMI</b>	480i/576i/480p/576p 720p (60/59.94/50/30/29/25/24/23.98) 1080i (60/59.94/50) 1080P(60/59.94/50/30/29.97/25/24/24sF/23.98/23.98sF) 4K UHD 3840×2160p (30/29.97/25/24/23.98Hz) DCI 4K 4096×2160p (24Hz)
<b>SDI</b>	480i/576i 720p (60/59.94/50/30/29/25/24/23.98) 1080i (60/59.94/50) 1080p (60/59.94/50/30/29.97/25/24/24sF/23.98/23.98sF)

### 4. Parameters

<b>Panel Size</b>	17.3"	21.5"
<b>Resolution</b>	1920×1080 pixels	1920×1080 pixels
<b>Dot Pitch</b>	0.1989×0.1989 mm	0.24825×0.24825 mm
<b>Aspect Ratio</b>	16:9	16:9
<b>Brightness</b>	400cd/m <sup>2</sup>	250cd/m <sup>2</sup>
<b>Contrast</b>	600:1	3000:1
<b>Viewing Angle</b>	80°/80°(L/R) 60°/80°(U/D)	89°/89°(L/R) 89°/89°(U/D)
<b>Backlight</b>	LED	

<b>Inputs</b>	3G-SDI, HDMI, Video, Audio(L/R), DVI-I, RS485, Tally	
<b>Outputs</b>	3G-SDI, HDMI, Video, RS485, Headphone, Speaker	
<b>Input Voltage</b>	DC 9~24V	
<b>Power Consumption</b>	≤27W	≤18W
<b>Working Temperature</b>	-10℃ ~ 50℃	
<b>Storage Temperature</b>	-20℃ ~ 60℃	
<b>Unit Size</b>	425L×284H×35.7Dmm	511.5Lx355.6Hx36.3Dmm
<b>Unit Weight</b>	3.2kg	4.4kg

## 5. Trouble Shooting

If there is any problem when using the unit, please try following ways to inspect and solve. Please contact us if you still cannot solve it or have other problems.

● Without image display	Trouble shooting
◆ Video cable off or connect incorrectly	Check the quality of the cable, make sure the correct input interface
◆ Without video signal input	Check the signal source and output interface connect is corrected or not
◆ Monitor cannot be powered on	Check whether the power is connected, put the power switch to “on” position
◆ Supply voltage instability	The power adapter or battery is poor connected with battery plate
◆ self-contained power supply, polarity connect inversely	Reference "Power input way" reconnect

<b>• Image/color display abnormal      Trouble shooting</b>	
◆ Video cable poor contact	Change video cable, try again
◆ Video signal interfered by external environment	Move to another environment to try again
◆ Video input signal amplitude too low	Check signal source video output, or change signal source and have a try.
◆ Menu color saturation adjustment closing	Enter menu to check color, or reset to factory settings
◆ Check Field set in mono or black & white	Reset Check Field, back to the color
◆ Image deformation	Reset the image ratio

<b>• Speaker without sound      Trouble shooting</b>	
◆ Audio cable off or improper connection	Confirm connected with the corresponding input port
◆ Volume adjustment was closed	Reset the volume control and adjust to a proper position
◆ HDMI cable poor Connected	Check the quality of cable, or change cable and have a try
◆ No sound after switch video signal	This monitor is with audio signal only in audio input and HDMI state

**■ Remark:**

★ If there are still other problems, please contact with our related technical persons.

★ If there are changes without prior notice as we constantly strive to improve product features and product performance.