21.5"
PROFESSIONAL VIDEO MONITOR

Important Safety Instructions

The device has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipment, the device should be used with care. Please read and follow the safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

- Please do not place the display screen towards the ground to avoid scratching the LCD surface.

- Please avoid heavy impact.

- Please do not use chemical solutions to clean this product. Simply wipe with a soft cloth to keep clean of the surface.

- Please do not place on uneven surfaces.

- Please do not store the monitor with sharp, metallic objects.

- Please follow the instructions and trouble-shooting to adjust the product.

- Internal adjustments or repairs must be performed by a qualified technician.

- Please keep user guide for future reference.

- Please unplug the power and remove the battery if long-term no-use, or thunder weather.

Safety Disposal For Old Electronic Equipment

Please do not regard the old electronic equipment as municipal waste and do not incinerate old electronic equipment. Instead please always follow local regulations and hand it over to the applicable collection stand for safe recycling. Ensure that these waste materials can be effectively disposed of and recycled to prevent our environment and families from negative effects.

Introduction

This monitor is wide field of vision is matched with excellent color space, which reproduced the colorful world with the most authentic elements.

Features

- HDMI1.4 supporting 4K 30Hz.

- 3G-SDI input & loop output.

- 1000cd/㎡ high brightness.

- 1920X1080 high resolution.

- Support multiple video input interfaces: SDI, HDMI, VGA, AV.

- FN User-definable function button.

- HDR supporting HDR10_300, HDR10_1000, HDR10_10000, HLG.

- Color Temperature (6500K, 7500K, 9300K, User).

- Markers & Aspect Mat (Pixel to pixel, Zoom, Aspect).

- Scan (Fullscan, Underscan, Overscan).

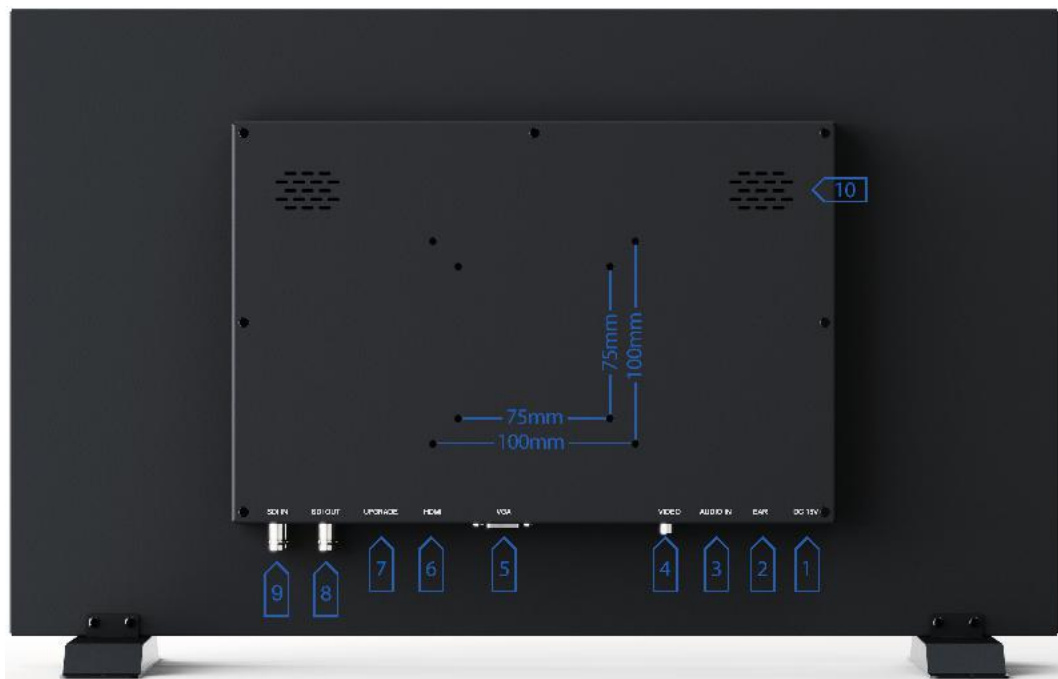- Marker color (Red, Green, Blue, Mono).

CONTENTS

1. Production Description

1.1 Front Panel

1) Power Button.

2) FN button, can be set by [Menu]-[System]-[FN Configuration].

   Default: [Level Meter]

3) EXIT Button.

4) ▷ Button: Press it to increase volume when power on; Select options downward in the menu.

5) ◁ Button: Press it to decrease volume when power on; Select options upward in the menu.

6) MENU Button: Press it to display the menu on the screen when power on. Press it to confirm the option selected.

7) INPUT Button: Switch among of AV, VGA, HDMI and SDI signals.

8) Brightness Sensor

9) Power Light (Red/Green).

1.2 Rear Panel

1)   Power input: DC 12V.

2) Earphone input(3.5mm).

3) Audio input.

4) Video input.

5) VGA input.

6) HDMI 1.4 input.

7) USB 2.0 (for upgrade).

8) SDI output.

9) SDI input.

10) Speaker*2.
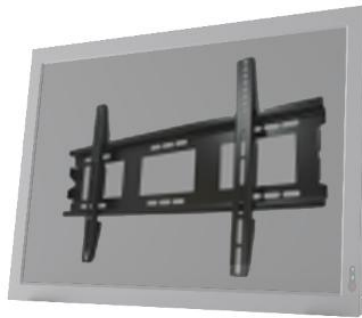
1.3 Supported Mounting Ways

● **Desktop**

Standing on the table by installing the desktop bracket on the bottom of the monitor.

● **Wall mount**

Installed and fixed on the standard VESA bracket through VESA 75mm holes on its rear panel.

2.Menu Settings

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

2-1. Shortcut Button

2-1-1. Menu /▷/◁ Button

- lPress MENU button, the menu will pop up on the screen. Then select item as the following sequences via pressing ▷/◁ button: PICTURE / MARKER / FUCTION / VGA / AUDIO / SYSTEM. Press MENU button again to enter into the item you select.

- lPress ▷/◁ button to adjust options or values in the selected item. Then press MENU or EXIT button to apply and save the setting.

- lWhen Menu is inactivated, press ▷/◁ button to adjust volume. Then select item as the following sequences via pressing MENU button: Brightness / Contrast / Saturation / Tint / Sharpness and Exit. Press ▷/◁ button again to adjust the value in the selected item.
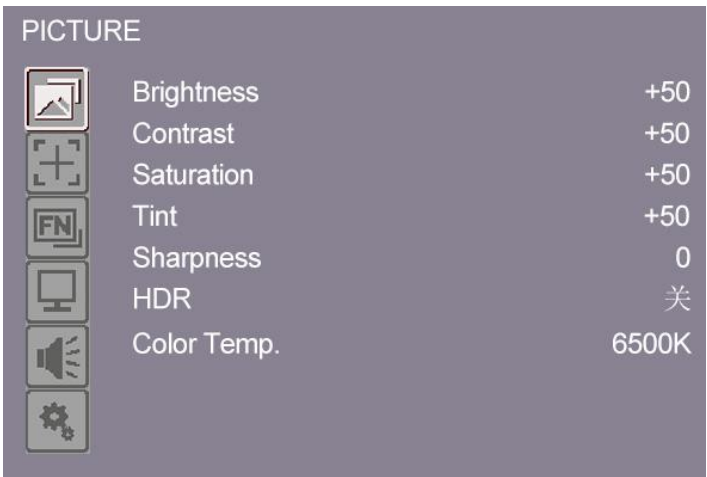
2-1-2. FN Button

Press Menu button, select [System]-[FN Configuration] to set the FN button function. User can set the FN button function: Center Marker / Aspect Marker/ Check Field/ Display Scan/ Scan/ Aspect/ Freeze/ HDR/ Level Meter.

Default: Level Meter.

2-2. Menu Operation

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

2-2-1. PICTURE

```
PICTURE

   Brightness                        +50
   Contrast                          +50
   Saturation                        +50
   Tint                              +50
   Sharpness                           0
   HDR                                关
   Color Temp.                     6500K
```

Marker	Brightness	0 - 100
	Contrast	0 - 100
	Saturation	0 - 100
	Tint	0 - 100
	Sharpness	0 - 100
	HDR	Off, HDR10_300, HDR10_1000, HDR10_10000, HLG
	Color Temp.	6500K, 7500K, 9300K, USER

- Brightness -

Adjust the general brightness of the LCD from [0]-[100]. For example, if the user is outside in bright conditions, increase the LCD brightness to make it easier to view.

- Contrast -

Increases or decreases the range between the bright and dark areas of the image. High contrast can reveal detail and depth in the image, and low contrast can make the image appear soft and flat. It can be adjusted from [0]-[100].

- Saturation -

Adjust the color intensity from [0]-[100]. Turn the knob right to increase the color intensity and turn left to decrease it.

- Tint -

It can be adjusted from [0]-[100]. Affect the resulting color mixture's relative lightness.

- Sharpness -

Increase or decrease the sharpness of the image. When the image sharpness is insufficient, increase the sharpness to make the image clearer. It can be adjusted from [0]-[100].

- HDR -

Options: [Off], [HDR10_300], [HDR10_1000], [HDR10_10000], [HLG].
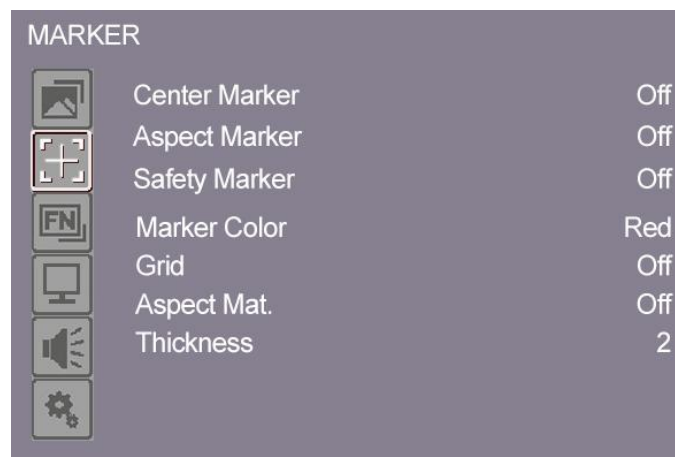
Note: Only available under SDI and HDMI mode.

- Color Temp. -

[6500K], [7500K], [9300K] and [User] mode for optional.

Adjust the color temperature to make the image warmer (Yellow) or colder (Blue). Increase the value to make the image be warmer, decrease the value to make the image be colder. User can use this function to strengthen, weaken or balance the image color according requirements. The standard white light color temperature is 6500K.

Color Gain/Offset is available only under "User" mode to choose the color value.

2-2-2. MARKER

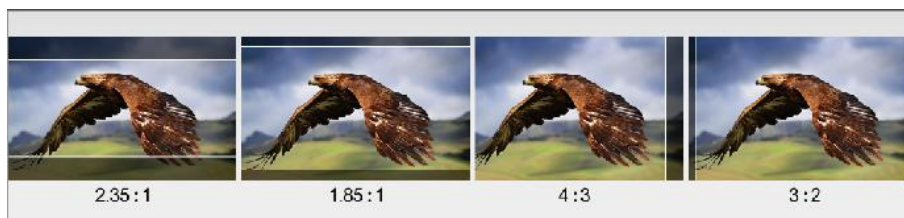|	Center Marker	ON, OFF
	Aspect Marker	OFF, 1.85:1, 2.35:1, 4:3, 3:2
	Safety Marker	OFF, 95%, 93%, 90%, 88%, 85%, 80%
Marker	Marker Color	Red, Green, Blue, White, Black
	Grid	OFF, ON
	Aspect Mat.	OFF, 1, 2, 3, 4, 5, 6, 7
	Thickness	2, 4, 6, 8

- Center Marker -

Select On, it will appear "+" marker on center of screen.

- Aspect Marker -

The Aspect Marker provides various aspect ratios, as the following:

[OFF], [2.35:1], [1.85:1], [4:3], [3:2]

- Safety Marker -

Used to select and control the size and availability of the safety area. Available type are [OFF], [95%], [93%], [90%], [88%], [85%], [80%] preset to choose.

- Marker Color -

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

- Grid -
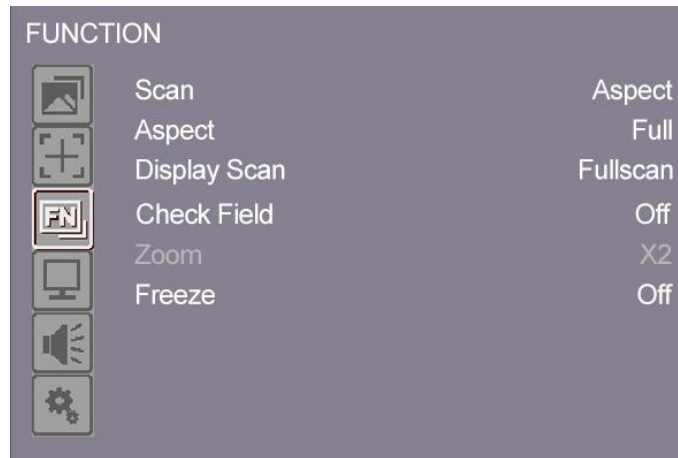
Options: [ON], [OFF].

- 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[2], [4], [6], [8]   (Step value is 2).

2-2-3. FUNCTION

Function	Scan	Aspect, Pixel To Pixel, Zoom
	Aspect	Full, 1.85:1, 2.35:1, 4:3, 3:2
	Display Scan	Fullscan, Overscan, Underscan
	Check Field	OFF, Mono, Red, Green, Blue
	Zoom	X1.5, X2, X3, X4
	Freeze	OFF, ON

- Scan -

Use this menu option to choose Scan mode. There are three modes preset:

● Aspect

Select Aspect under Scan option, then use Aspect option to switch between several aspect ratio setting. For example:

In 4:3 mode, images are scaled up or down to fill the maximum 4:3 portion of the screen.

In Full mode, images are scaled to fill the entire screen.

● Pixel to Pixel

The pixel to pixel is a monitor set to 1:1 pixel mapping with native fixed pixels, which avoids loss of sharpness due to scaling artifacts and normally avoids incorrect aspect ratio due to stretching.
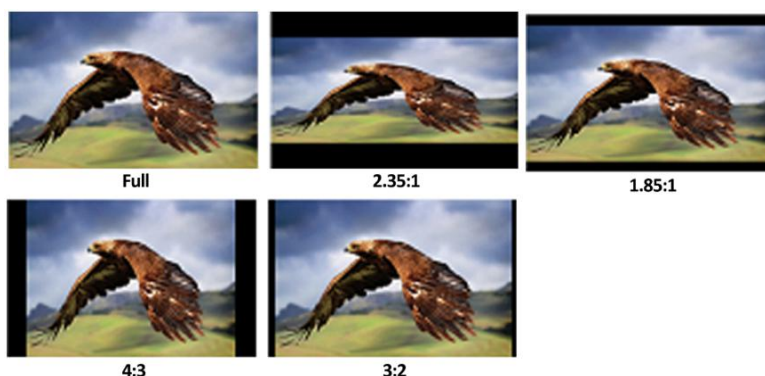
● Zoom

The image can be enlarged by [X1.5], [X2], [X3], [X4] ratios. To select the [Zoom] under [Scan], choose the times under [Zoom] option which underneath the Check Field option.

Note! Zoom option can ONLY be activated when user select [Zoom] mode under [Scan] function.

- Aspect -

Select the aspect of the image among [Full],[1.85:1], [2.35:1], [4:3], [3:2].

| Full | 2.35:1 | 1.85:1 |
| 4:3 | 3:2 | |

- Display Scan -

If the image shows size error, use this setting to zoom in/out pictures automatically when receiving signals.

The scan mode can be switched among [Fullscan], [Overscan], [Underscan].

- Check Field -

Use the check field modes for monitor calibration or to analyze individual color components of an image. In [Mono] mode, all color is disabled and only a grayscale image is shown. In [Blue], [Green], and [Red] check field modes, only the selected color will be shown.

Note! DSLR is available ONLY under HDMI mode.

- Freeze -

Activate freeze function to freeze current picture when playing the video.

2-2-4. VGA

	Auto	ON, OFF
	Phase	0 - 100
VGA	Clock	0 - 100
	H-Position	0 - 100
	V-Position	0 - 100

- Auto -

Select [On], the monitor can automatically adjust the position of the image.   Select   [Off],   users   can manually adjust the position of the image.

- Phase-

Adjust internal phase sequence difference. Adjustable range: 0-100.

- Clock -

Adjust internal oscillation frequency when interference occurs. Adjust this   item,   the   image   can   be compressed or stretched left or right. Adjustable   range: 0-100.

- H-Position -

Horizontally adjust the position of the image on the screen. Adjustable   range: 0-100.

- V-Position-

Vertically adjust the position of the image on the screen. Adjustable   range: 0-100.
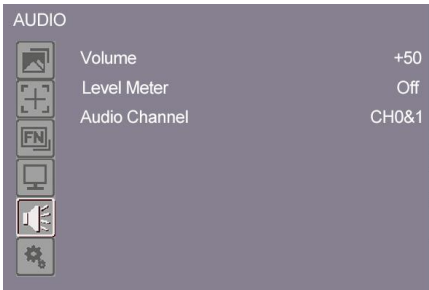
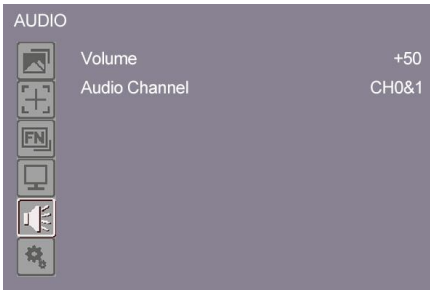Note! Only available under VGA mode.

2-2-5. AUDIO

- VGA, VIDEO mode -   - SDI mode -   - HDMI mode -

	Volume	0 - 100
AUDIO	Level Meter	OFF, ON
	Audio Channel	CH0&1, CH2&3, CH4&5, CH6&7, CH8&9, CH10&11, CH12&13, CH14&15

- Volume -

To adjust the volume from [0]-[100] for the built in speaker and earphone jack audio signal.

- Level Meter -

The left side of the on screen meters displays level meters showing audio levels for channels 1 and 2 of the input source. It features peak hold indicators which stay visible for a short time so the user can clearly see the maximum levels reached.

To achieve optimum audio quality, ensure the audio levels do not reach 0. This is the maximum level, meaning that any audio that exceeds this level will be clipped, resulting in distortion. Ideally peak audio levels should fall in the upper end of the green zone. If the peaks enter into the yellow or red zones, the audio is in danger of clipping.

- Audio Channel -

The monitor can receive 16 channels audio from SDI signal. The audio channel can be changed among [CH0&CH1], [CH2&CH3], [CH4&CH5], [CH6&CH7], [CH8&CH9], [CH10&CH11], [CH12&CH13], [CH14&CH15]

2-2-6. SYSTEM

System	Language	English, 中文
	OSD Timer	10s, 20s, 30s
	OSD Transparency	Off, low, Middle, High
	Image Flip	Off, H, V, H&V
	Auto Backlight	Off, ON
	Back Light	0 - 100
	FN Configuration	Center Marker / Aspect Marker / Check Field / Display Scan / Scan / Aspect / Freeze / Level Meter
	Reset	OFF, ON

- Language -

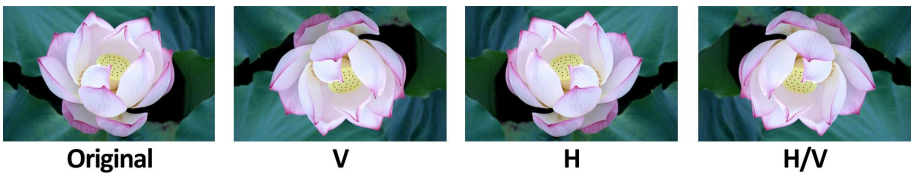Switch between [English] and [Chinese].

- OSD Timer -

Select the displaying time of the OSD. It has [10s], [20s], [30s] preset to choose.

- OSD Transparency -

Select the transparency of the OSD from [Off] → [Low] → [Middle] → [High]

- Image Flip -

The monitor support [H], [V], [H/V] three preset Flip modes.

| Original | V | H | H/V |

- Auto Backlight-

Select On, the Auto Backlight function can be automatically adjusted according to the ambient brightness.

- Back Light -

Adjusts the level of the back light level from [0]-[100]. If the back light value is increased, the screen becomes brighter.

- F1 Configuration -

Select "F1 Configuration" for setting. Functions: [Level Meter] → [Center Marker] → [Aspect Marker] → [Check Field] → [Display Scan] → [Scan] → [Aspect] → [Freeze]→ [HDR].

Default function: [Level Meter]

- Reset -

If there is any problem unknown, press to confirm after selected. The monitor will return to default settings.

3. Parameter

Display	Display Screen	21.5" LCD
	Physical Resolution	1920×1080
	Aspect Ratio	16:9
	Brightness	1000 cd/m²
	Contrast	1000: 1
	Viewing Angle	160°/ 160°(H/V)
Power	Input Voltage	DC12-24V
	Power Consumption	≤36W
Source	Input	HDMI1.4 x1
Signal Format	3G-SDI LevelA/B	1080p(60/59.94/50/30/29.97/25/24/23.98/24sF/30sF/29.97sF/25sF/23.98sF) 1080i(60/59.94/50)
	HD-SDI	1080p(30/29.97/25/24/23.98/30sf/29.97sf/25sf/24sf/23.98sf) 1080i(60/59.94/50) 720p(60/59.94/50/30/29.97/25/24/23.98)
	SD-SDI	525i(59.94) 625i(50)
	HDMI1.4	2160p(30/29.97/25/24/23.98) 1080p(60/50/30/29.97/25/24/23.98) 1080i(60/50)
	Ear Jack	3.5mm
Environment	Operating Temperature	0℃~50℃
	Storage Temperature	-10℃~60℃
General	Dimension (LWD)	524.8×313.3×44.5mm
	Weight	5.1kg

*Tip: Due to constant effort to improve products and product features, specifications may change without notice.

4. Accessories

1) 15V DC Adapter		1 piece
2) HDMI A/A cable		1 piece
3) VGA cable		1 piece
4) VIDEO cable		1 piece
5) AUDIO cable		1 piece
6) Base bracket		1 pair

5. Trouble Shooting

1. **Only black-and-white display:**
   Check whether the color saturation and check field are properly setup or not.

2. **Power on but no pictures:**
   Check whether the cables of HDMI, and 3G-SDI are correctly connected or not. Please use the standard power adapter coming with the product package. Improper power input may cause damage.

3. **Wrong or abnormal colors:**
   Check whether the cables are correctly and properly connected or not. Broken or loose pins of the cables may cause a bad connection.

4. **When on the picture shows size error:**
   Press [MENU] → [Function] →[Aspect] to zoom in/out pictures automatically when receiving HDMI signals

5. **Other problems:**
   Please press Menu button and choose [MENU] → [System] → [Reset] → [ON].

6. **According to the ISP, the machine can not function properly:**
   ISP for program upgrades, non-professionals do not use. Please reboot your device if press accidentally!

7. **Image Ghosting:**
    If continue to display the same image or words on the screen for a long period of time, part of that image or words may burn into the screen and leave a ghosting image behind. Please understand it 's not quality issue but the character of some screen, so no warranty/return/exchange for such situation.

8. **Some options can not be select in the Menu:**
    Some options are available only in a certain signal mode, such HDMI, SDI or VGA. Some options are available only when a certain feature is turned on. For example, Zoom function shall be set after following steps: [Menu] → [Function] → [Scan] → [Zoom] → [Exit] → [FN] → [Zoom].

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