Konvision

KFM-5X series / KFM-6X series LCD Monitors

USER MANUAL

V2.1

Shenzhen Konvision Technology Co., Ltd

http://www.konvision.com

Contents

Notes

For the safety use of products, please read the following instructions

regarding the installation, use and maintenance carefully.

. Please read the product safety and operating instructions carefully before the product is operated.

. Please keep the safety and operating instructions for future reference.

. Please pay strict attention to the warnings and implement the products according to the operating instructions closely.

. All operating instructions should be strictly enforced.

1. Please use the power cord recommended by manufacturer.

2. Please do not place heavy objects on the power cord.

3. Please do not expose the monitors to rain, humid, dusty places.

4. Please do not place vessels with liquid (such as cups, beverage bottles) on the monitor.

5. Please do not place this product in high heat places.

6. Please make sure the earth terminal is good in order to avoid electric shock.

7. Please do not open the back cover to avoid electric shock. Please contact professionals for service need.

8. If there is no image or sound, please unplug the power cord from the AC outlet immediately. Please consult professionals if there still have problems after examining carefully.

9. Do not place this product at unstable places such as cars, shelves or tables, as it is easy to make the product falling down, may cause severely hurt to children and adults and also damage to the product.

10. Please do not touch the power plug with wet hands, as it will cause electric shock.

11. Please do not expose the LCD panel in direct sunlight for a long time, it will result in damage or aging of the LCD panel.

12. Please display this product at a suitable temperature and humidity place.

13. Please do not spray any liquid things and/or add any objects into the monitor, it might

cause voltage instability and short-circuit, also can easily cause fires and blackouts.

14. If do not use the device for a long time, please unplug the power cord from the AC outlet.

15. Please keep not less than 5cm space around the vents while using the monitor, in order to obtain good heat dissipation effect.

Security
Screen Maintenance

Please follow the below guidelines carefully to prevent discoloration, stains and scratches on the screen:

- Avoid striking the screen with any object.

- Do not wipe the screen hard.

- Do not wipe the screen with solvents such as alcohol, thinner or gasoline.

- Do not spray detergent or other cleaners on the monitor or LCD panel, as it may cause fault because of water droplets into the monitor.

- Do not write on the screen.

- Do not paste or stick any viscous markers on the screen.

Screen may be cleaned by gently wiping with lint free cloth to remove dust. For the more difficult cleaning, use lint free cloth that has been very lightly dampened with detergent, then dry any excess moisture from the monitor or LCD panel immediately to prevent damage.

Cabinet Maintenance

Please follow the guidelines below to prevent potential damage.

- Do not wipe the cabinet with solvents such as alcohol, thinner or gasoline.

- Do not use any pesticides and/or other volatile substances.

- Do not allow prolonged contact with rubber or plastic.

- Do not wipe the cabinet hard. Use a soft, lint free cloth to clean. If the cabinet cleaning is more difficult, use lint free cloth that has been very lightly dampened with detergent and then dry it to wipe.

Installation

- Keep adequate air circulation to prevent device internal overheating. Please do not place the product on the surface of some certain objects (such as blankets, carpets, etc.), as these objects may block the vents.

- Please keep the device away from heat generating sources, such as radiator, heaters and air duct, also keep it away from much dust or mechanical vibration place.

Rack mount Installation

- For rack mount installation, please keep 1U space from both top and bottom to make sure adequate air circulation, or install an external electric fan. Please follow the instructions and install with the rack mounts provided by manufacturer.

Transportation

- This monitor is precise equipment and need professional packing materials to transport. So do not to use packing materials provided by suppliers except KONVISION or its authorized packing material suppliers.

When the following situations occur, please turn off the power, do not insert the plug and contact a professional service staff to deal with timely.

A. This product smells smoke and off-flavor.

B. When this product displays abnormal operating conditions, such as there is no picture or sound.

C. When any liquid is splashed into the product or product dropped.

D. When the product soaked or fall into the water.

E. When the product has been damaged or other damage circumstances.

F. When the power cord or plug is damaged.

The following does not belong to failures:

1. If the static image displayed too long, it will have residual image, which should be attributed to the characteristics of LCD display but not a failure. Residual image will disappear automatically after a period of time.

2. If this device used in a cold environment, the screen may appear residual image. This is not a product failure, when the monitor temperature changes, screen will return to normal conditions.

3. LCD screen may appear tiny spots (red, blue or green), this is not a fault, LCD screens are manufactured with high precision technology, and a small number of pixels may not be able to show intermittent.

4. Screen and cabinet will become warm gradually during operating.

Features

High Brightness LCD Panel

- High brightness, high contrast, high-speed response and wide viewing angle technology makes the monitor can be used under variety of lighting conditions.

High Brightness Tally Indicator

- The tally function via GPT or LAN port, with two colors red and green.

Auto-detection of all color system (PAL, NTSC, SECAM)

- This unit detects the color system automatically.

3D Video Decoder

- Process 3D decoding on VIDEO signals, to realize better reduce cross color.

Motion-Adaptive Interlace to Progressive

- It converts interlaced video to progressive video by motion detection, reduce the serrated image

10BIT Signal Processing

- Signal input, signal processing and image output are 10bit data processing, to ensure the details display of the image.

Support Multiformat SDI Signals

- The SDI interface supports SD-SDI, HD-SDI, dual link HD-SDI and 3G SDI inputs.

SDI Input

- Support multi-format SDI input, SD-SDI, HD-SDI, 3G SDI

- Support SMPTE425M-A/B 4:4:4 signals.

HDMI/DVI/VGA Input

- HDMI signal can be input via HDMI to DVI-I converter through DVI connector, DVI signal can be input through DVI connector, VGA signal can be input via VGA to DVI-I Converter through DVI connector.

Signal Source Loop Through

- Signal that linked to the input connector will be enlarged and linked to output connector. SDI reclock loop out ensure the signal without enervation.

PIP/PBP

- Two SDI inputs signals display simultaneously under PIP (picture in picture) and PBP (picture by picture) mode. One SDI input signal can be also displayed with another signal of VIDEO, S-VIDEO, COMPONENT, HDMI simultaneously, and showing two pictures on the screen.

SWAP Function

- In PIP/PBP mode, two pictures can be swapped between each other.

Color Temperature

- Different color temperatures can be selected freely

Image Size Setting

- The display mode is switchable among 16:9, 4:3, full screen, 1:1, and the original image proportion.

Marker Setting

- Show frame borders, center marker, and safety area, etc.

HV Delay

- Display horizontal and vertical board and blanking area of SDI1 input signal.

Color Space

- Color space include: Rec 709、EBU、DCI P3 D65、DCI P3、Rec 2020、USER1、USER2、USER3. (This function only available to KFM-6X)

Color Calibration

- This enable to calibrate imported color data of the image being measured by color analyzer. (This function only available to KFM-6X, specific instructions please contact with the dealer.)

Scan Mode

- Scan mode includes Full Scan, Over Scan, Under Scan.

Part Zoom In

- Zoom in any part of the picture, to watch picture details more clearly, and assist for focus.

Audio level meter (UV+PPM)

- Show the audio level meter (UV+PPM) for SDI embedded audio.

Waveform

- Display input signal waveform and color scope for SDI signal input monitoring. It includes luminance waveform, CbCr waveform. Luminance waveform will mark with red if over the value specified by user.

Focus Assist

- Focus assist is to aid the cameraman focus on the main body by marking the sharpest edge of the image with red.

False Color

- False color can Intuitively observe and calculate illumination level in the image, luminance and illumination values display mapping as luminance level, from darkest to brightness display blue, cyan, green, yellow, orange and red in turn.

Histogram

- YRGB histogram displays the hue distribution of the entire image under SDI input condition, can intuitively display exposure of the image, display R, G, B 3 channels independently.

Vector scope

- Vector UV analysis for color bar signal input.

Pixel Measurement

- User can measure any pixel's specific position and RGB value, also can compare the YRGB value between any 2 pixels.

Time code

- Display SMPTE time code (LTC, VITC1, VITC2) under SDI1 input, it is used for identifying and synchronizing of video data streams.

Remote Control Function

- Available to connect to the remote terminal to operate the equipment directly, select the input signal, longitudinal mode settings and tally indicator, etc.

Parts and Functions

A: Front View
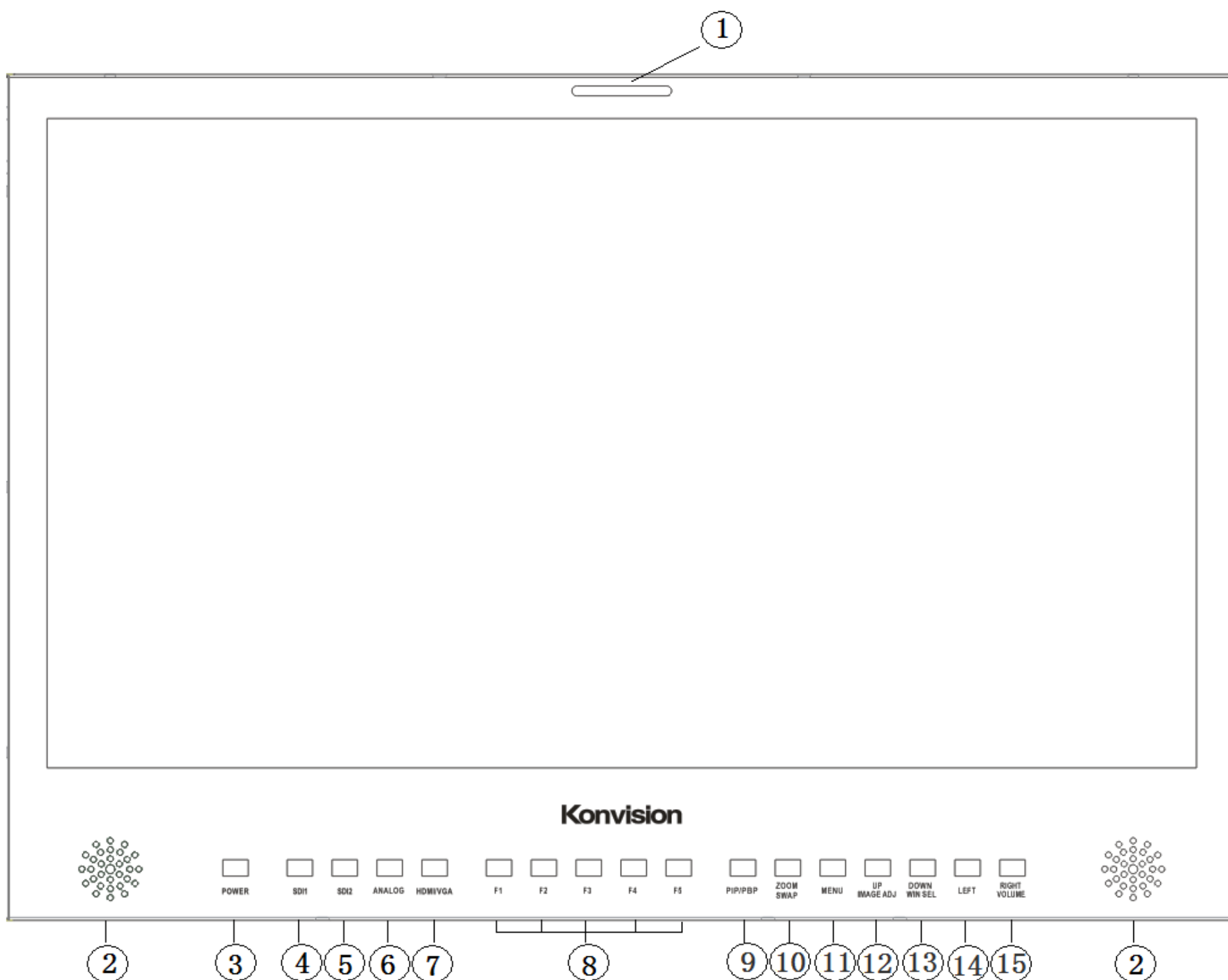
(1)Tally Indicator

Control method of Tally light

1.   GPI port（control method: please look the GPI port description）

2.   RS422 Port: support use TSL3.1 or TSL 4.0 protocol control the tally light

(2) Speaker

Stereo audio output.

(3) Power Button and Indicator

When the external AC power supply with electricity, the indicator light is red. Press this POWER button to power on the monitor, and the indicator light turns blue. Press this button for about 2 seconds, can turn off the monitor, the indicator light turn red.

(4) SDI1 Button and Indicator

Press this button to select SDI1 signal input, indicator turns blue.

(5) SDI2 Button and Indicator

Press this button to select SDI2 signal input, indicator turns blue.

(6) ANALOG Button and Indicator Light

Press this button to select input signal between YPbPr、Video、 S-video, indicator turns blue.

(7) HDMI/VGA Button and Indicator Light

Press this button to select signal input among DVI/HDMI/VGA, indicator turns blue.

(8) F1-F5 Button and Indicator Light

F1-F5 these buttons can be used as shortcut buttons.

Press the F1-F5 buttons to select the corresponding function.\

When the set button function item is set to off in the main menu, this buttons are invalid.

F1-F5 These button functions can be set in the menu Function key options.

(9) PIP/PBP Button

Press this button for window layout among single, PIP, PBP mode. In PIP/PBP mode, one of the signal must be SDI1 input, the other can be any of SDI2, HDMI, VGA, Video, etc.

(10) ZOOM/SWAP Button

At single mode: press this button to zoom in

At PIP/PBP mode: press this button to swap 2 windows rapidly.

(11) MENU Button

Press this button to display the OSD menu, and press it again to exit the menu.

Clear the Marker display.

Clear Display mode.

Turn off the shortcut menu.

(12) UP/IMAGE ADJ Button

When in OSD main menu, press this button to select up sub-menus.

When not in OSD menu, press this button to show backlight, brightness, and contrast respectively.

The display has the following changes:

Backlight ——→ Brightness ——→ Contrast

Backlight: The screen backlight brightness adjustment shortcut menu display, press the LEFT button or (RIGHT / VOLUME) button to adjust the brightness of the screen backlight.

Brightness: The image brightness adjustment shortcut menu is displayed. Press the LEFT button or the (RIGHT / VOLUME) button again to adjust the image brightness.

Contrast: The image contrast adjustment shortcut menu is displayed. Press the LEFT button or the (RIGHT / VOLUME) button again to adjust the image contrast.

(13) DOWN/WIN SEL Button

When entering the menu operation, press to select the menu item.

When the screen is in the PIP / PBP state, press this button to select one of the picture. In this case, you can press other buttons to set the parameters of the selected screen independently, without affecting the parameters of the other screen.

(14) LEFT Button

When entering the menu operation, press this button to select the menu item.

When not in the menu operation, press this button to enter the volume adjustment shortcut menu.

When entering the shortcut menu, press this key to adjust the scroll bar to the left.

(15) RIGHT/VOLUME Button

When entering the main menu operation, press this button to select the sub menu to the right.
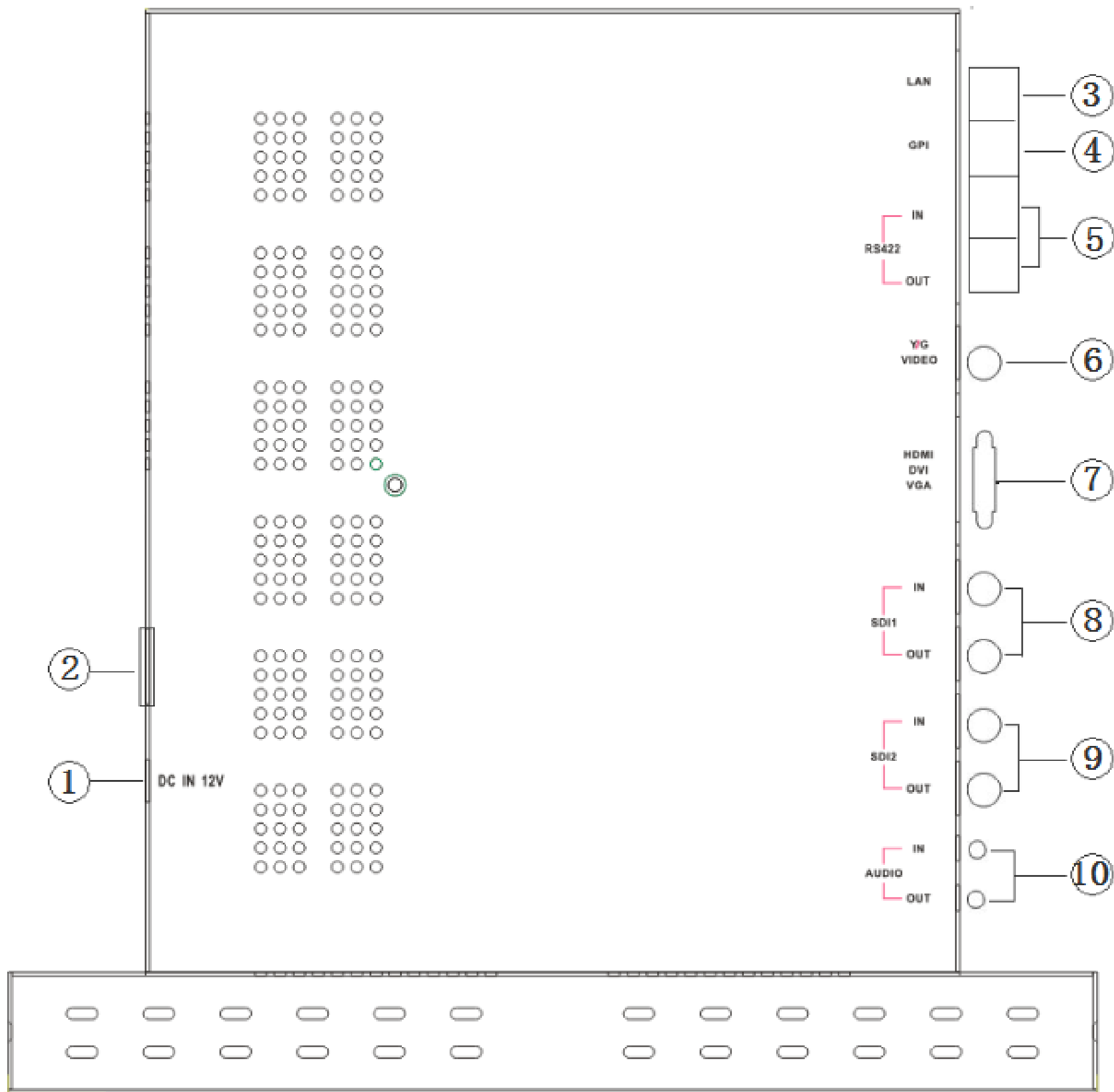
When entering the sub menu operation, press this button to adjust the parameters of the current sub menu item to the right.

When not in the menu operation, press this button to enter the volume adjustment shortcut menu.
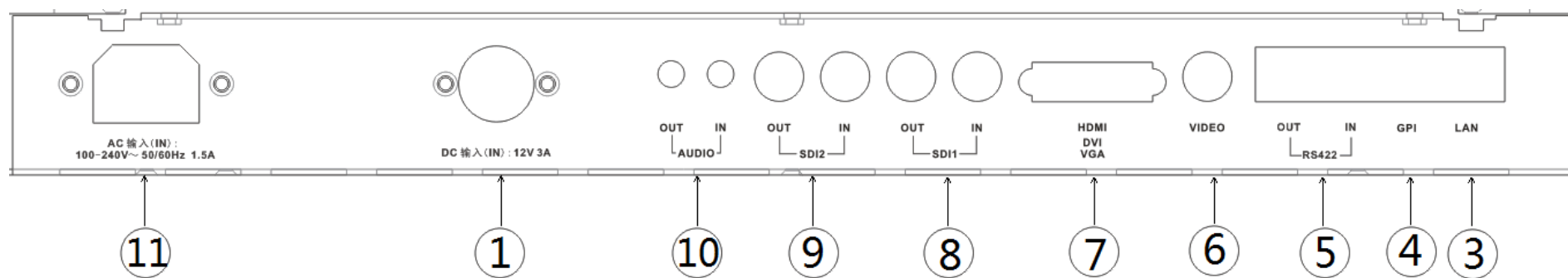
When entering the shortcut menu, press this button to adjust the scroll bar to the right.

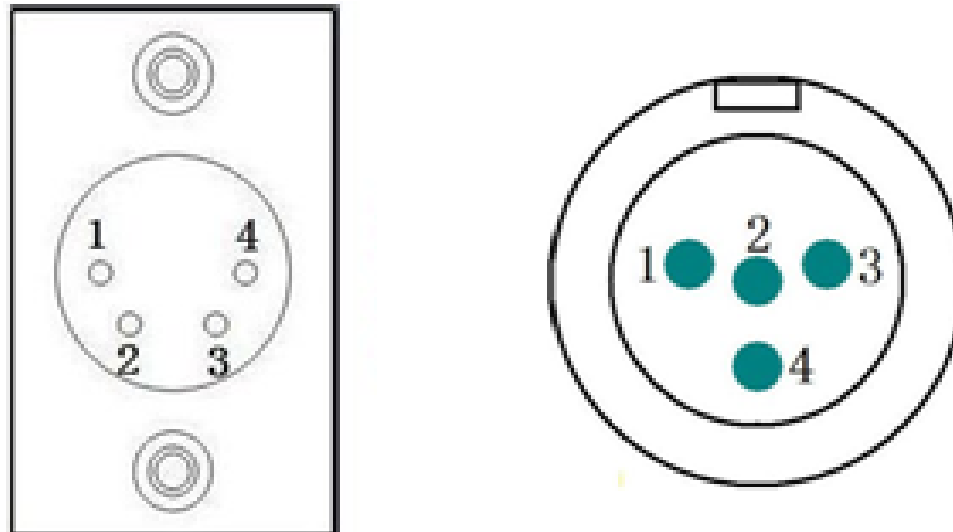**B: Rear View**

KFM-1753W rear view port

KFM-1760D rear view port

(1) DC 12V IN

12V DC power supply

Pin 1:GND
Pin 2:NC(No connect)
Pin 3:NC(No connect)
Pin 4:12V

The interface pins are defined as:

Pin 1: Ground

Pin 2: NC

Pin 3: NC

Pin 4: +12V

(2) ON/OFF

Power button

(3) LAN

In shortcut functions: Turn the knob to adjust the value of Brightness, Contrast and Chroma respectively.

Ethernet port for remote network control. Thought this port, along with software "Konvision Device Controller", you can achieve remote controlling to the monitor easily. (remote control software & instructions please contact with the dealer)

(4) GPI

GPI interface:
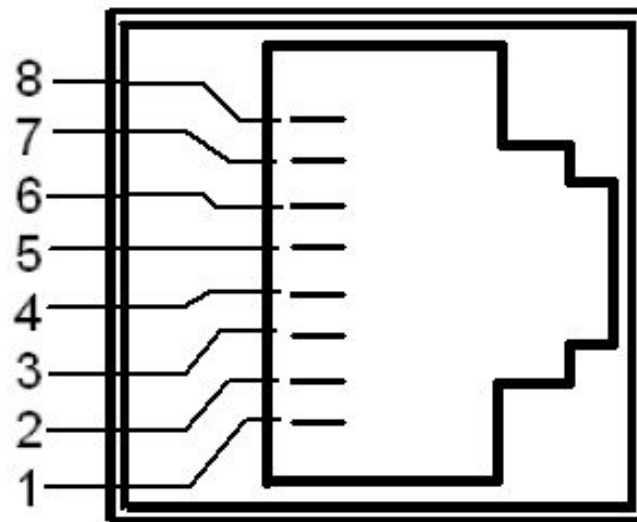
Pin	GPI Signal	Description
1	GPI1	when connect GND, GPI1 works, GPI1 function can be set in the menu function option
2	GPI2	when connect GND, GPI2 works, GPI2 function can be set in the menu function option
3	GPI3	when connect GND, GPI3 works, GPI3 function can be set in the menu function option
4	TX	RS232-TX, for MCU program upgrade, please contact the dealer for upgrade operation. When the program is not upgraded, the suspension is not connect.
5	RX	RS232-RX, for MCU program upgrade, please contact the dealer for upgrade operation. When the program is not upgraded, the suspension is not connect.
6	GPI4	when connect GND, GPI4 works, GPI4 function can be set in the menu function option
7	NC	Not connect
8	GND	Ground

(5) RS422(IN/OUT)

RS422 in and out, support dynamic UMD/Tally.
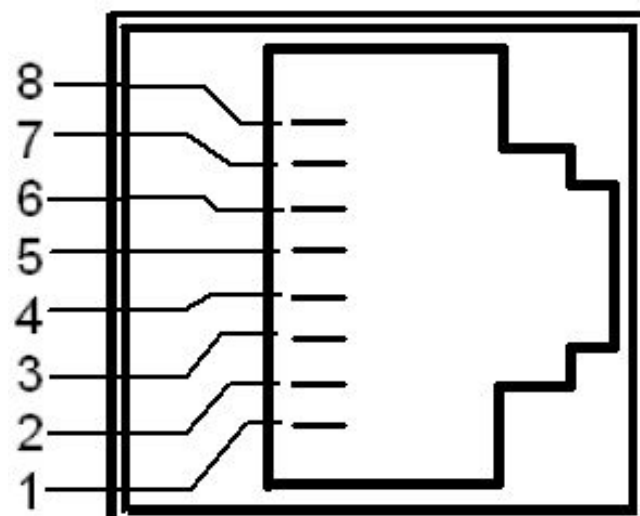
Pin	RS422 IN Signal name	RS422 OUT Signal name
1	GND	GND
2	GND	GND
3	Tx-	Tx-
4	Rx+	Rx+
5	Rx-	Rx-
6	Tx+	Tx+
7	NC	NC
8	NC	NC

(6) VIDEO

Video signals input

(7) HDMI/DVI/VGA

HDMI/DVI/VGA input. DVI input, support DVI signal, HDMI signal (via HDMI-DVI convertor), and VGA signal (via VGA-DVI convertor)

(8) SDI1(IN/OUT)

SDI1 inputs (3G/HD/SD-SDI auto detect), SDI Reclock loop through output, without enervation.

(9) SDI2(IN/OUT)

SDI2 inputs (3G/HD/SD-SDI auto detect), SDI Reclock loop through output, without enervation.

(10) AUDIO(IN/OUT)

Audio in used for analog signal input, Audio out used for monitoring with 3.5mm earphone.

(11) AC Faucet

Using for AC power connect

Menu Operation

Menu Operation:

1. MENU Button:

Press the Menu button, the main menu will be displayed on the screen, and press the MENU button again to exit the menu.

When in sub-menu, press the MENU button to return to previous menu.

When in setting option, press the MENU button to return to exit.

2. UP and DOWN button:

When in the main menu or sub menu, the menu item can be selected by pressing the UP / DOWN button to select up / down functions.

3. LETF/(RIGHT/VOLUME) button:

When in the main menu, enter the sub menu by pressing RIGHT button.

When in the sub menu, the parameters can be adjusted by pressing the LETF / RIGH function button.

Menu Item Description

1. Main menu:

The main menu contains the following items:

Main menu	Menu item
Status	1
Function Key	1
Picture	1
Image	1
Audio	1
Marker	1
Scope	1
Embedded code	1
Layout	1
IMD	1
Alarm	1
Setup	1
Key Lock	1

2. Sub Menu:

Status:

Main Menu	Status	
Status	Source&Format	SDI1 1920x1080I50
Function Key	Fh	28121Hz
Picture	Fv	50Hz
Image	Color Temp	6500
Audio	Color Space	Rec 709
Marker	Image Size	FILL ASPECT
Scope	Scan Mode	100% Scan
Embedded code	Screen Saver	YES
Layout	Power Saving	YES
IMD	MCU Firmwave Version	XSDIM A Jun 10 2017
Alarm	DSP Firmwave Version	7-0-19-2
Setup		
Key Lock		

Status	
Menu item	Description
Source&Format	Current window input signal and resolution
Fh	The current window input signal line frequency
Fv	The field frequency of the current window input signal
Color Temp	The current color temperature
Color Space	Current color space
Image Size	The image size of the current window input signal
Scan Mode	The current window is input to the signal scan mode
Screen Saver	System screen saver status
Power Saving	System power saving mode status
MCU Firmwave Version	CPU software version
DSP Firmwave Version	DSP software version

Function Key:

Function Key		
Menu item	Setting	Description
F1	Image Size No Definition static frame Time Code Display Audio Level Meter Waveform Mode Vector Focus Assist Pixel Measurement False Color Zebra Histogram Picture Flip Fast Mode Blue Mode	The Function keys can be set to the following functions: Image Size, No Definition, static frame, Time Code Display, Audio Level Meter, Waveform Mode, Vector, Focus Assist, Pixel Measurement, False Color, Zebra, Histogram, Picture Flip, Fast Mode, Blue Mode, Gray Mode, Marker Setting

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	Gray Mode	
	Marker Setting	
F2	Same as above	Same as above
F3	Same as above	Same as above
F4	Same as above	Same as above
F5	Same as above	Same as above
GPI1	Blue Mode Image Size Marker Display No Definition Red TALLY Green TALLY SDI1 SDI2 HDMI VGA Video	Can be set to the following functions:Blue Mode, Image Size, Marker Display, No Definition, Red TALLY, Green TALLY, SDI1, SDI2, HDMI, DVI, VGA, Video
GPI2	Same as above	Same as above
GPI3	Same as above	Same as above
GPI4	Same as above	Same as above

Picture Setting:

```
Main Menu                    Picture
Status           Backlight          040
Function Key     Picture Mode       Standard
Picture          Brightness         050
Image            Contrast           059
Audio            Sharpness          007
Marker           Colour             050
Scope            Hue                050
Embedded code    Colour Temp        6500K
Layout
IMD
Alarm
Setup
Key Lock
```

Picture		
Menu item	Setting	Description
Backlight	0-100	Backlight Adjustment
Picture Mode	Standard Customize	The parameters of brightness, contrast, sharpness, color, hue in Factory Default. Custom is for user definition
Brightness	0-100	Brightness Adjustment
Contrast	0-100	Contrast Adjustment
Sharpness	0-15	Sharpness Adjustment
Colour	0-100	Color Adjustment
Hue	0-100	Hue Adjustment
Colour Temp	5600K 6500K 9300K Custom: Red Gain 0-255 Green Gain 0-255	Three modes of the fixed color temperatures selection (5600K, 6500K, 9300K) and a custom selection. "Custom" is for user definition, to adjust the gain value and offset value of Red, Green and Blue. It will save the color

Blue Gain 0-255	temperature setting automatically.
Red offset 0-255	
Green offset 0-255	
Blue offset 0-255	

Image:

Image		
Menu item	Setting	Description
Image Size	FILL ASPECT	original ratio of the signal source
	Full Screen	Full screen image
	1: 1	At 1:1 pixel-to-pixel display. It is invalid in PIP sub-screen and PBP mode.
	16: 9	16:9 aspect ratio
	4: 3	4:3 aspect ratio
Scan Mode	100% Scan	100% Image display
	Over Scan 5%	95% Image display

	Under Scan 5%	105% image display
Part Zoom in	<Right>Enter, <PIP>Part Zoom in	Zoom in any part of the picture, to watch picture details more clearly, and assist for focus.
Gray Mode	On Off	Monochrome mode with black and white image
Blue Mode	On Off	Display in Blue only
Fast Mode	On Off	Interlace scan without converting into progressive scan
H/V Delay	On Off	Display horizontal & vertical blanking area of SDI input signal
Log Mode	Off S-LOG FULL S-LOG Standard	Off the Log options Select S-LOG FULL Select S-LOG Standard
Gamma mode	Off Gamma 2.0 Gamma 2.2 Gamma 2.4 Gamma 2.6 Rec.2100 HLG 1.0 Rec.2100 HLG 1.1 Rec.2100 HLG 1.2 Rec.2100 HLG 1.3 Rec.2100 HLG 1.4 Rec.2100 HLG 1.5 ST2084 PQ	User can choose different Gamma or off Gamma(This function only available for KFM-6X series)

	S-Log3	
Color Space	Rec 709 EBU DCI P3 D65 DCI P3 Rec 2020 USER1 USER2 Bypass	Select Rec 709 Select EBU Select SMPTE C Select DCI P3 Select Rec 2020 Select USER1 Select USER2 Select Bypass (Remark 1: KFM-5X series only available Rec2020 and bypass. Remark 2: Users can load their own LUT files through user1 and user2 option. For specific instruction please contact with the local dealers)
Start Color Correction	\<Right> to start color Correction	In the menu of Color calibration , press right key to start color calibration, have to connect with color analyzer. Notice: restart the monitor to back from color calibration function when misled to the function.

Audio:

```
Main Menu                    Audio
Status              Volume                    50
Function Key        Headphone Volume          50
Picture             Audio Out Channel      CH1&CH2
Image               Audio Level Meter        OFF
Audio               Audio Display Channels  1-2Channels
Marker              Audio Display Mode      Vertical
Scope               Audio Phase Meter        OFF
Embedded code       Audio Phase Channel    CH1&CH2
Layout
IMD
Alarm
Setup
Key Lock
```

Audio		
Sub Menu Items	Setting	Description
Volume	0－100	Speaker volume adjustment
Headphone Volume	0－100	Headphone volume adjustment
Audio Out Mode (only for SDI and HDMI/DVI signal)	Normal Left Channel Mute Right Channel Mute	Left and right channel out normal Left channel mute, just out the right channel Right channel mute, just out the left channel
Audio Out Channel (only for SDI/HDMI/DVI signal)	CH1&CH2 CH3&CH4 CH5&CH6 CH7&CH8	When in SDI Signal: SDI embedded audio select in CH1&CH2、CH3&CH4、CH5&CH6、CH7&CH8. When in HDMI Signal: HDMI embedded audio

		select in CH1&CH2.
Audio Level Meter (only for SDI/HDMI/DVI signal)	On Off	Turn on/off audio level meter display
Audio Display Channels (only for SDI/HDMI/DVI signal)	1-4 Channel 1-8 Channel 1-16 Channel 9-16 Channel 1-2 Channel (Only HDMI signal）	When in SDI Signal: 1-4 channels: 1-4 channels are displayed horizontally or vertically on the left side of the screen. 1-8 channels: 1-8 channels are displayed horizontally or vertically on the left side of the screen. 1-16 channels: 1-8 channels are displayed horizontally or vertically on the left side of the screen. 9-16 channels are displayed horizontally or vertically on the left side of the screen. When in HDMI Signal: Only displayed 1-2 channel horizontally or vertically on the left side of the screen.
Audio Display Mode (only for SDI/HDMI/DVI signal)	Horizontal Vertical	Audio level meter display horizontal/vertical
Audio Phase Meter	ON	Turn on/off Audio Phase

(only for SDI/HDMI/DVI signal)	OFF	Meter display
Audio Phase Channel (only for SDI/HDMI/DVI signal)	CH1&CH2 CH3&CH4 CH5&CH6 CH7&CH8	When in SDI Signal: SDI Audio Phase Channel can be selected in CH1&CH2 、CH3&CH4 、CH5&CH6、CH7&CH8. When in HDMI Signal: HDMI Audio Phase Channel only can be selected in CH1&CH2.

Marker Setting:

Marker Setting		
Sub Menu Items	Setting	Description
Marker Enable	ON	All markers on
	OFF	All markers off

Marker Select	OFF	NO marker display
	4:3	Marker display 4:3
	16:9	Marker display 16:9
	15:9	Marker display 15:9
	14:9	Marker display 14:9
	13:9	Marker display 13:9
	1.85:1	Marker display 1.85:1
	2.35:1	Marker display 2.35:1
Target Marker	ON	Turn on target marker
	OFF	Turn on center mark
	USER	Turn on user target tag
Safety Area	OFF	No Safety Area display
	80%	80% Safety Area display
	85%	85% Safety Area display
	88%	88% Safety Area display
	90%	90% Safety Area display
	93%	93% Safety Area display
Marker Level	White	Maker line is white
	Gray	Marker line is gray
	Dark	Marker line is dark
Marker Mat	OFF	Turn off Fill up the background beyond marker
	Transparency	Background beyond marker transparent
	Half	Background beyond marker filled up with gray
	Black	filled up with black

Scope:

Scope (only for SDI/HDMI/DVI signal)		
Sub Menu Items	Setting	Description
Waveform Mode	OFF LUMA YUV FULL LUMA	Turn off the waveform mode Display Y(luminance) waveform Display YCbCr waveform Display Y (luminance) waveform, one-to-one correspondence between its horizontal coordinates and image horizontal coordinates
Waveform Alarm	84%-100%	Waveform alarm can be set at any percentage between 84%-100%, it will alarm when measured waveform reach or exceed the value you set and mark them with red

Scope (only for SDI/HDMI/DVI signal)

Waveform Scale	Digital IRE	Display in digital Display in percentage of luminance
Histogram Mode	OFF LUMA RGB	Turn off the histogram mode Display luminance histogram Display R G B histogram
Vector	ON OFF	Turn on/off vector
Vector Scale	100% 75%	Vector 100% display Vector zoom out to 75% display
Zebra	ON OFF	Turn on/off zebra
Zebra Level	84%-100%	Zebra level can be set at any percentage between 84%-100%, it will alarm when measured luminance reach or exceed the value you set and overlay display with red zebra stripes
Pixel Measure	ON OFF	Turn on/off pixel measure
False Color	ON OFF	Turn on/off false color
Focus Assist	ON OFF	Turn on/off focus assist
Focus Gain	0-31	Focus gainadjustment0-31

Focus Color	Red	Focus color use Red
	Green	Focus color use Green
	Blue	Focus color use Blue
	White	Focus color use White
H Flip	On	Turn on horizontal flip
	Off	Turn off horizontal flip

Embedded code:

Embedded code (only for SDI signal)		
Menu item	Setting	Description
Time Code Display	ON	Turn on/off Time code
	OFF	
Time Code Mode	LTC	Time code display as LTC mode
	VITC1	Time code display as VITC1
	VITC2	Time code display as VITC2

Layout:

Layout		
Menu item	Setting	Description
Layout	Single	Display only a single signal picture on screen
	PIP	Display two signals pictures simultaneously on screen, the sub picture in the main picture.
	Side by Side	Display two signals pictures side-by-side simultaneously on screen, the sub picture at the right side of the main picture. **Note**: In PIP/PBP mode, one of the signal must be SDI2, the other signal is

		any of other input signals. Can display 2 SDI simultaneously.
Main Window Source	Video SDI1 SDI2 VGA HDMI	Main Window select signal input among SDI1/SDI2/VGA/HDMII
Second Window Source (this item shows in PIP/PBP)	Video SDI1 SDI2 VGA HDMI	Main Window select signal input among SDI1/SDI2/VGA/HDMII
PIP Size (this item shows in PIP mode)	Large Middle Small	The second window is Large size The second window is medium size The second window is small size
PIP position (this item shows in PIP mode)	Left Top Right Top Center Right Bottom Left Bottom Custom	The second window in the left-top corner of screen. The second window in the right-top corner. The second window in the center. The second window in the right-bottom corner. The second window in the left-bottom corner. The second window is

		adjusted by user When the user select this option, it will automatically pop up at the following "horizontal position" and "vertical position" menu items
H Position (this item shows when PIP position select "Custom")	0－100	Horizontal position adjustment of picture-in-picture's second window
V Position (this item shows when PIP position select "Custom")	0－100	Vertical position adjustment of picture-in-picture's second window
Alpha Blend (this item shows in PIP mode)	0－100	Adjustment of PIP's second window and the main window alpha blend degrees. When the value is 0, the second window is translucent blend with the main window; when the value is 100, the second window blend directly to the main screen.
Swap (this item shows in PIP/PBP mode)	<Right> to swap two windows	In PIP and PBP, turn right the VOLUME knob to swap the signal pictures between two windows (main window and second window).
Current signal rename	xxxxxxxx	The current signal rename

display characters can be arbitrarily set in 8 "xxxxxxxx".The setting process: Select the option to the UMD main screen character options, press the ZOOM/SWAP button, the option is displayed as "xxxxxxxx ok". Meanwhile, the first character turned red, the user can press the LEFT or (RIGHT/VOLUME) button to select the desired character, after the completion of the first digit, press ZOOM/SWAP button, will jump to second characters at this time, second characters turn red, or press the LEFT and (RIGHT/VOLUME) button to select the desired character. In turn, the eighth character selection, when eighth characters after selection, and then press the (ZOOM/SWAP) button, the "OK" will become red, or press the LEFT and

		(RIGHT/VOLUME) button, "OK" will turn yellow, then press the MENU button to save and exit can complete the main screen of UMD character set. When setting, only if the character "OK" is yellow, press the MENU key to exit will save the previous character setting successfully. If the "OK" character is not changed from red to yellow, then the MENU key is used to exit, and the characters set in front are not saved.

IMD:

Main Menu	IMD	
Status	UMD Display	OFF
Function Key	UMD ID	128
Picture	UMD Position	Bottom Center
Image	UMD Local Color	GREEN
Audio	UMD Main Window Char	UMD-WIN0
Marker	UMD Second Window Char	UMD-WIN1
Scope	UMD PROTOCOL	TSL 3.1
Embedded code	OSD Tally Mode	RG
Layout	LED Tally	OFF
IMD	LED Tally Source	GPI
Alarm		
Setup		
Key Lock		

IMD		
Sub Menu Items	Setting	Description
UMD Display	ON OFF	Turn on/off the UMD display
UMD ID	128-255	UMD ID can be set any value from 128-255. It can be used for multidevice cascading, set different UMD ID for different devices. In remote control situation, this function can be used for distinguishing different devices so as to remote control different devices.
UMD Position	Top Left	UMD display at Top Left

	Top Center Bottom Center Bottom Right	UMD display at Top Center UMD display at Bottom Center UMD display at Bottom Right
UMD Local Color	GREEN RED White	UMD character display in green UMD character display in red UMD character display in white
UMD Main Window Char	xxxxxxxx	UMD main picture characters can be arbitrarily set in 8 "XXXXXXXX". The setting process: Select the option to the UMD main screen character options, press the ZOOM/SWAP button, the option is displayed as "xxxxxxxx ok". Meanwhile, the first character turned red, the user can press the LEFT or (RIGHT/VOLUME) button to select the desired character, after the completion of the first digit, press ZOOM/SWAP button, will jump to second characters at this time,

		second characters turn red, or press the LEFT and (RIGHT/VOLUME) button to select the desired character. In turn, the eighth character selection, when eighth characters after selection, and then press the (ZOOM/SWAP) button, the "OK" will become red, or press the LEFT and (RIGHT/VOLUME) button, "OK" will turn yellow, then press the MENU button to save and exit can complete the main screen of UMD character set. When setting, only if the character "OK" is yellow, press the MENU key to exit will save the previous character setting successfully. If the "OK" character is not changed from red to yellow, then the MENU key is used to exit, and the characters set in front are not saved.
UMD Second Window Char (this item shows in PIP/PBP	xxxxxxxx	Setting is same as UMD Main Window Char.

mode)		
UMD PROTOCOL	TSL3.1	Select TSL3.1
	TSL4.0	Select TSL4.0
	TSL5.0	Select TSL5.0
OSD Tally Mode	OFF	Turn off OSD Tally
	RG	OSD Tally select RG mode
	GR	OSD Tally select GR mode
	RGY	OSD Tally select RGY mode
LED Tally	ON	Turn on/off the LED Tally
	OFF	
LED Tally Source	GPI	Select GPI control
	TSL	Select TSL protocol control

Alarm:

Main Menu	Alarm	
Status	Alarm Display	OFF
Function Key	No Signal Alarm	OFF
Picture	Black Frame Alarm	OFF
Image	Static Frame Alarm	OFF
Audio	Audio Mute Alarm	OFF
Marker	Audio Level High Alarm	OFF
Scope	Audio Level Low Alarm	OFF
Embedded code	EDH Error Alarm	OFF
Layout	CRC Error Alarm	OFF
IMD		
Alarm		
Setup		
Key Lock		

Alarm		
Menu item	Setting	Description
Alarm Display	Off On	Turn off/on the alarm display
No Signal Alarm	Off On	Turn off/on the signal alarm
Black Frame Alarm	Off On	Turn off/on the black frame alarm
Static Frame Alarm	Off On	Turn off/on the static frame alarm
Audio Mute Alarm	Off On	Turn off/on the audio mute alarm
Audio Level High Alarm	Off On	Turn off/on the audio level high alarm
Audio Level Low Alarm	Off On	Turn off/on the audio level low alarm
EDH Error Alarm	Off On	Turn off/on the EDH error alarm
CRC Error Alarm	Off On	Turn off/on the CRC error alarm

Setup:

```
     Main Menu                        Setup
 Status              Language              English
 Function Key        OSD Settings    =>
 Picture             Format Display        Auto
 Image               Power Saving          ON
 Audio               Screen Saver          ON
 Marker              Factory Reset   <Right>to Factory Reset
 Scope
 Embedded code
 Layout
 IMD
 Alarm
 Setup
 Key Lock
```

Setup		
Sub Menu Items	Setting	Description
Language	Chinese English	Select Chinese/English in menu
OSD Settings	0-100	Menu background from opaque to completely transparent selection
	1-30	Menu disappear time when no button operation
	0-100	Menu horizontal position adjust
	0-100	Menu vertical position adjust
Format Display	OFF	Turn off the display info of signal format.

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	ON	Turn on the display info of signal format.
	Auto	Automatically display info of signal format when signal changes, disappear after 4s.
Power Saving	ON	Enter power-saving mode, the system will switch off some functions when the main input is without signal more than 10 minutes. This feature is invalid in PIP/PBP status.
	OFF	
Screen Saver	ON	The system will enter screen saver mode when the main input is without signal. This feature is invalid in PIP/PBP status.
	OFF	
Factory Reset	<Right> to Factory Reset	Turn right the VOLUME knob, the system restore to factory setting

Key Lock:

Key Lock		
Menu item	Setting	Description
Key Lock	OFF	Key Lock Off
	ON	When the key lock are turn on,only MENU and VOLUME(LETF/RIGHT) knob, IMAGEADJ(UP/DOWN) knob can be operate, the rest can not.

3. Function Key

```
              Function Key
F1      Image Size           FILL ASPECT
F2      Marker Enable             OFF
F3      Audio Level Meter         OFF
F4      TimeCode Display          OFF
F5      Waveform Mode             OFF
```

Function Key		
Shortcut Menu	Set up	Setting Description
F1	Press main menu Function key to set	Press main menu Function key to set
F2	Press main menu Function key to set	Press main menu Function key to set
F3	Press main menu Function key to set	Press main menu Function key to set
F4	Press main menu Function key to set	Press main menu Function key to set
F5	Press main menu Function key to set	Press main menu Function key to set

Function key menu operation instruction:

Function can be set in the main menu function key. Press function key to call function key menu, press function key again to turn on / off function key function. In the function key menu, use UP / DOWN key, you can also up / down function keys. If the function key function contains multiple modes, using the LETF / RIGHT keys, you can quickly select other functions as well. For example, the F1 function key function on the graph is the image size, while the image size function includes the original ratio, full screen, 1: 1, 16: 9 and 4: 3 modes. Using the LETF / RIGHT key, Quickly select one of the original scale, full screen, 1: 1, 16: 9, 4: 3 settings in the key menu.

Dual picture operation:

Continuous press PIP / PBP button, you can quickly from single-picture and dual-picture by the fast switch. In the dual picture, press the SWAP key, you can quickly exchange the left and right pictures. In the dual picture, press the WIN SEL button, you can select the picture window, at the same time, the selected window, you can also adjust the parameters alone, does not affect the other picture.

Pixel Measurements Operating Instructions:

Under SDI1 signal only, press this key to execute the key operation: Pixel measurement.

Pixel measurement: Press the MEASURE button, this time will enter the pixel measurement function. Press LEFT, (RIGHT / VOLUME) or (UP / IMAGE ADJ), (DOWN / WIN SEL) to move the large cross mark of the pixel measurement left / right / up and down to measure the position of any one pixel R, G, B value.

Pixel measurement using two pixel contrast: Press the MEASURE button, then enter the pixel measurement function. Press LEFT, (RIGHT / VOLUME) or (UP / IMAGE ADJ), (DOWN / WIN SEL) to move the large cross to the first pixel, then press the LEFT button and the (RIGHT / VOLUME) button , Mark the first pixel, then the pixel is marked with a small cross center, then continue to press the LEFT, (RIGHT / VOLUME) or (UP / IMAGE ADJ), (DOWN / WIN SEL) Will continue to move with a large cross mark, when the large cross mark center to move to another pixel you need to contrast, you can compare the difference between the current pixel and the previous marker pixel.

Measure	Line	Sample	Y	Y%	Cb	Cr	R256	G256	B256
Current									
Ref-pos									
Dif									

Measure: Measure

Current: Current pixel

Ref-pos: Previous markup pixels

Diff: The difference between the current pixel and the previous pixel

Line: The vertical position of the pixel

Sample: The horizontal position of the pixel

Y: The Y component value of the pixel (range between 0-1023)

Y%: The percentage of the Y component of the pixel relative to the maximum, i.e., (Y component value / 256) * 100%

Cb: The blue chroma component of the pixel

Cr: The red color component of the pixel

R: The red component value of the pixel (range between 0-255)

G: The green component value of the pixel (range between 0-255)

B: The blue component value of the pixel (range between 0-255)

SDI 2K signal display Description:

SDI in the 2K signal, the signal beyond the screen display, so look at the part of the image, you need the following operations:

1. Set the image size to 1: 1 display.

2. Press the LETF / RIGHT button, you can move the screen left and right, this can see the over screen image.

Factory Reset

This function is to reset the monitor to factory preset.

Please try to reset the monitor, when the following situations occur:

1. The monitor parameters are adjusted incorrect by user.

2. The monitor picture or sound is abnormal, and not due to hardware problem.

To do factory reset, please follow the below six steps:

```
Main Menu                     Setup

Status            Language                    English
Function Key      OSD Settings     =>
Picture           Format Display              Auto
Image             Power Saving                ON
Audio             Screen Saver                ON
Marker            Factory Reset    <Right>to Factory Reset
Scope
Embedded code
Layout
IMD
Alarm
Setup
Key Lock
```

1. Press the MENU button to enter the main menu options.

2. Press the DOWN button to select the setting option.

3. Press RIGHT to select the Set Sub menu Options.

4. Press DOWN to select factory reset option.

5. Press the RIGHT button prompts, the screen will refresh, wait for 3 seconds, press the POWER button to shut down.

6. Wait for 3 seconds and then press the POWER button to boot, the monitor to restore the factory settings is completed.

Remote Control

Remote control the monitor through Ethernet:

1. Connected with monitor via LAN, and you can achieve remote controlling by software "Konvision Device Controller".(Network remote control software and instructions please contact with the dealer)

2. The LAN cable should be parallel connection for both two ends, for example 568B LAN cable, with pin definition:

orange-white, orange, green-white, blue, blue-white, green, brown-white, brown.

Rack quick installation process

1. See Figure 1, when the pull-type monitor is fully folded, press the front two white screws tighten at the same time, the monitor can be fixed, so installed in the slide screen will not slide out. When the pull-up monitor is fully folded, its height H1 is 1U high and the width W is the standard 19-inch rack-mounting width, with four screw holes on each of the front and rear sides to secure the machine stand, while the L length is Tune, the shortest is 470mm, the longest is 525mm.
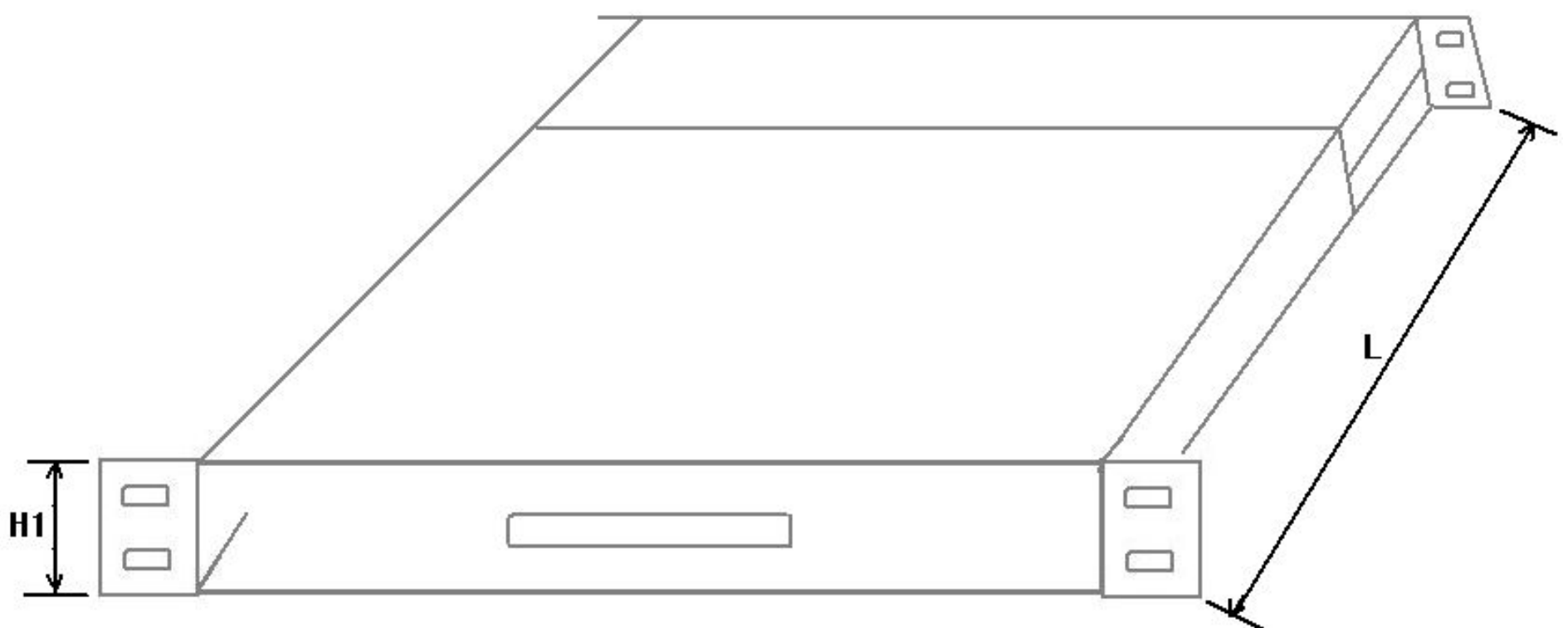

Figure 1

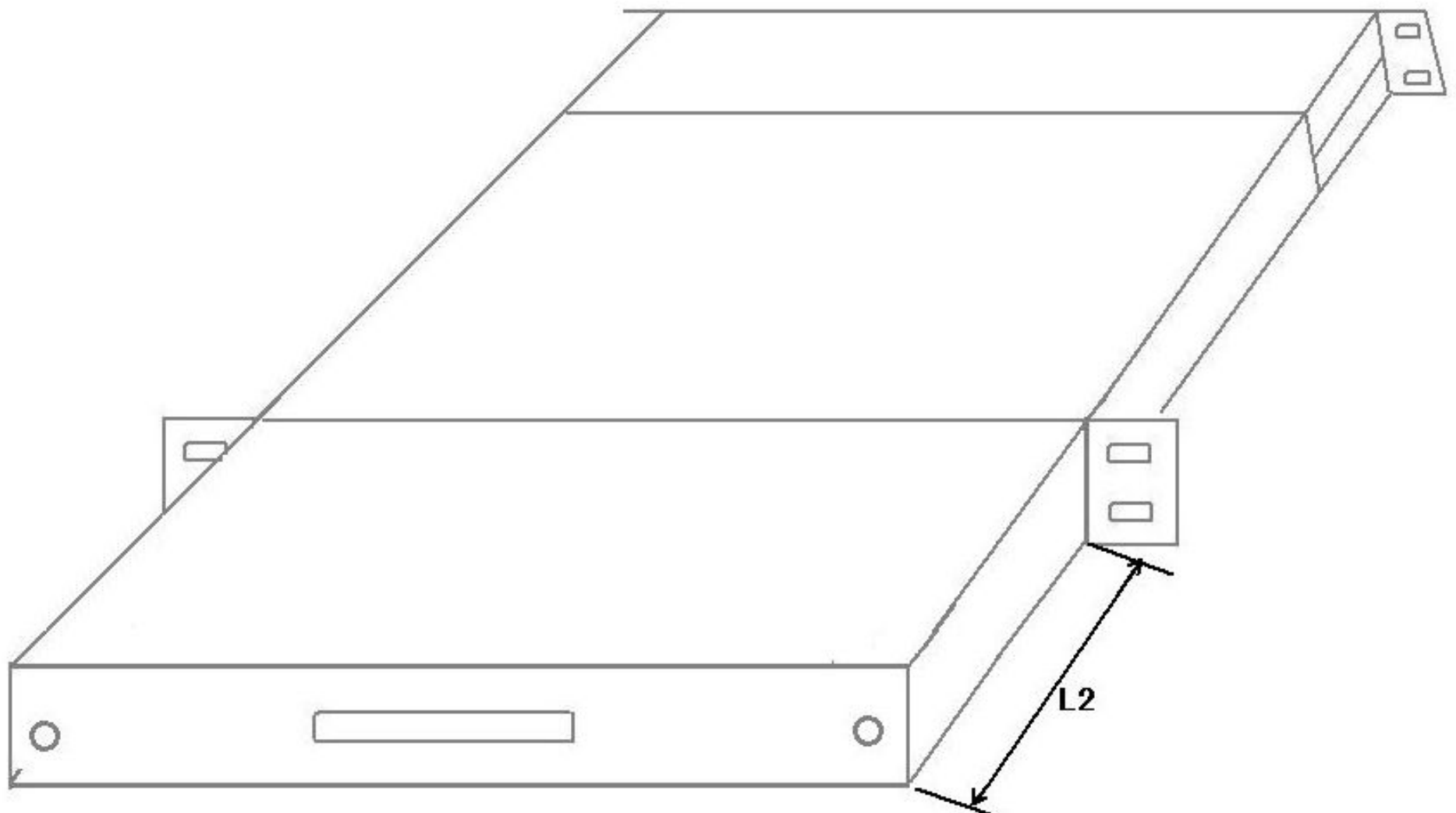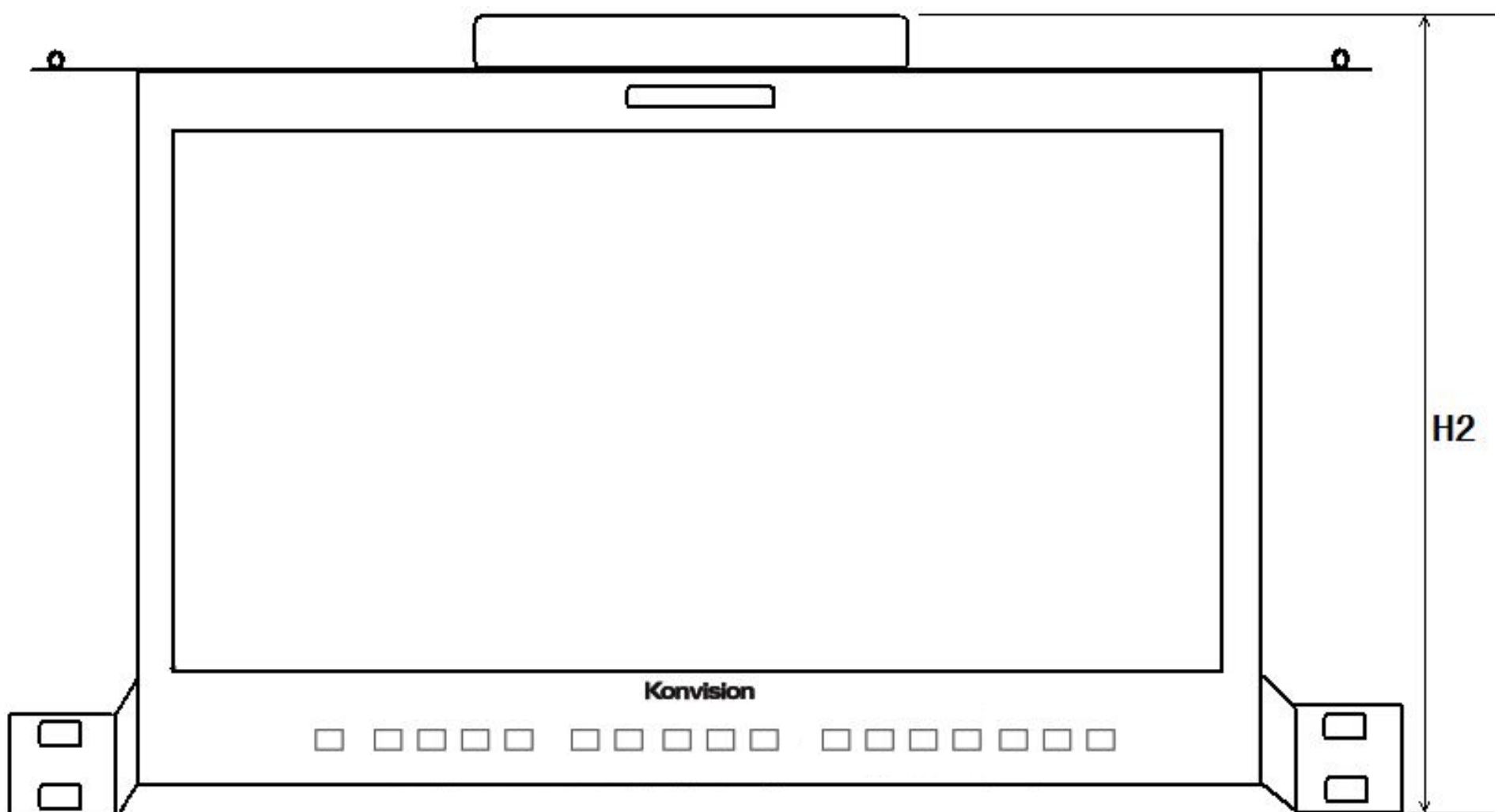2. See Figure 2, when the pull-out monitor is pulled out horizontally, its extracted length L2 is 330mm.

Figure 2

3. See Figure 3, when the pull-out monitor stands up, its height H2 is 312mm.

Warranty Card

User		Tel		Postal Code	
Address					
Product Model			Serial Number		
Dealer			Purchase Date		

Maintenance Record

Date	Contents of Reparation	Replacement parts		Repairer	User Signature
		Name	Qty		

This warranty card should be filled in immediately when purchasing

Please keep a proper record of this warranty card.

As the continuous improvement of the products, this will subject to change without notice

All contents on this data have been carefully checked, if there is any printing errors & omissions or any misunderstanding, our Company reserves the right of interpretation.