

LSM4K28



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# SAFETY WARNINGS AND GUIDELINES

- Do not place the monitor on an unstable surface where it could fall and cause either personal injury or damage to the monitor and/or other equipment.
- Do not expose the monitor to water or moisture of any kind. Do not place objects containing moisture, such as a glass or vase, where it could tip over and spill into or onto the monitor.
- If the monitor is exposed to water or moisture, immediately unplug it from its power source and allow it to completely dry out before reapplying power.
- Do not block the ventilation holes in the monitor's casing. Do not place the monitor in a confined space with inadequate ventilation.
- Do not place the monitor near a heat source, such as a fireplace, heating vent, radiator, etc.
- The power supply for this monitor accepts a wide range input voltages, from 100 to 240 VAC, 50 or 60 Hz, with a current at least 1.75A. Ensure that your power source is within these limits. If not, consult a professional electrician or your power company for a resolution.
- Unplug the monitor if it will go unused for a long period of time.
- This monitor has no user serviceable parts. Do not open the case or otherwise attempt to modify this monitor.
- Clean only using a soft, dry cloth. Do not use chemical cleaners, solvents, or detergents. For stubborn deposits, moisten the cloth with warm water.

## **FEATURES**

- One UHD 4K2K monitor with LED backlighting
- 16:9 aspect ratio
- 3840 x 2160 @ 60Hz maximum resolution using the DisplayPort & HDMI 2.0 inputs
- 1 DisplayPort & 3 HDMI inputs which allow for 4K resolution
- 1 VGA input
- Built-in stereo speakers with 5 watts/channel amplifier
- VESA mounting pattern
  - 28": 100x100 mm with M4 Hole

## **PACKAGE CONTENTS**

Please check the package contents to ensure that you have all the items listed below. If anything is missing or damaged, please contact service center for a replacement.

1x UHD 4K2K LED monitor

1x Base Plate

1x AC power adapter

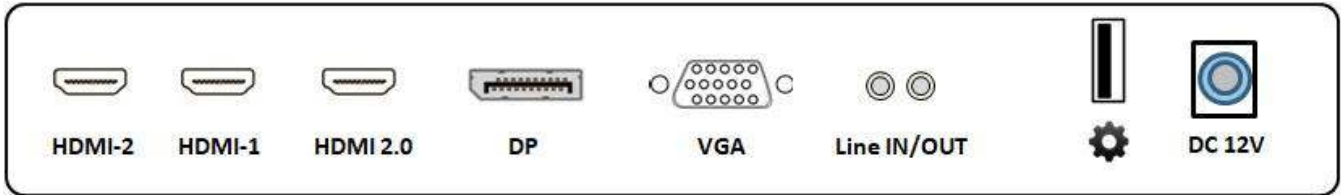
1x AC power cord


1x HDMI & VGA video cable

1x Remote controller

1x User's manual

# CONNECTIONS

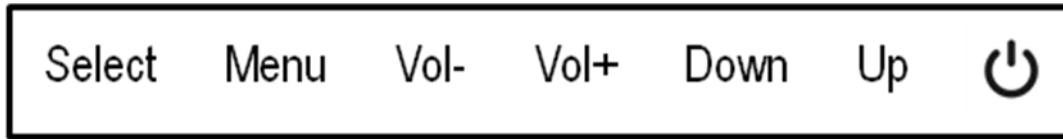


1	HDMI-2	HDMI 1.4 video input
2	HDMI-1	HDMI 1.4 video input
3	HDMI 2.0	HDMI 2.0 video input
4	DP	Display Port 1.2 video input
5	VGA	Analog input
6	Line In	3.5mm TRS stereo audio input
7	Line Out	3.5mm TRS stereo audio output
8		USB for software update
9	DC 12V	DC 12V power input

**HDMI Note:** This monitor is capable of displaying the full 4K resolution (3840x2160@60Hz) using an HDMI connection, however the HDMI source must support the 4K feature, as defined in the HDMI version 2.0 specification, and you must use a High Speed HDMI cable











**DisplayPort Note:** This monitor supports the full 4K resolution (3840x2160@60Hz) at the full 60Hz refresh rate, however the DisplayPort source and cable must comply with the DisplayPort version 1.2 specification (cable not included).

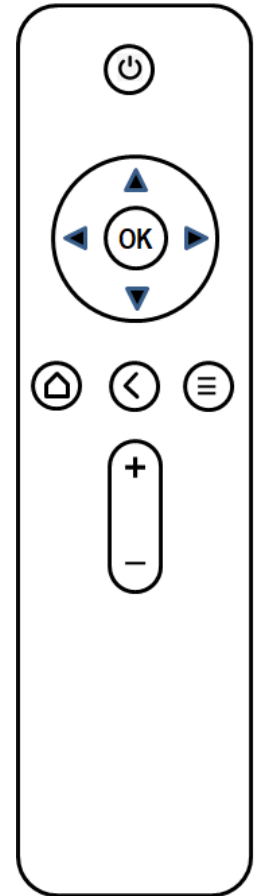
# CONTROLS



1. **Vol+** : If the OSD menu is displayed and an entry has been opened for editing, pressing the **Vol+** button increases the selected value. If the OSD is not displayed, pressing the **Vol+** button opens the volume adjustment control. With either the brightness or volume adjustment control displayed, pressing the **Vol+** button increases the brightness or volume.
2. **Vol-** : If the OSD menu is displayed and an entry has been opened for editing, pressing the **Vol-** button decreases the selected value. If the OSD is not displayed, pressing the **Vol-** button opens the volume adjustment control. With either the brightness or volume adjustment control displayed, pressing the **Vol-** button decreases the brightness or volume.
3. **UP** : If the OSD menu is displayed, pressing the UP button moves the selection highlight up. If the OSD menu is not displayed, pressing the **UP** button opens the brightness adjustment control. With either the brightness or volume adjustment control displayed, pressing the **UP** button **decreases** the brightness or volume.
4. **DOWN**: If the OSD menu is displayed, pressing the DOWN button moves the selection highlight down. If the OSD menu is not displayed, In VGA Mode, pressing the down button performs the "Auto Adjust" feature. In other modes pressing the down button opens the brightness adjustment control. With either the brightness or volume adjustment control displayed, pressing the DOWN button increases the brightness or volume.
5. **SELECT**: If the OSD menu is displayed, pressing the SELECT button either selects the currently highlighted menu option or opens the currently highlighted menu entry for editing. If the OSD menu is not displayed, pressing the SELECT button opens the Input menu.
6. **MENU**: If the OSD menu is not displayed, pressing the MENU button opens the OSD menu. If the OSD menu is displayed pressing the MENU button will back out of a submenu or close the OSD menu if already at the top menu level.
7. **POWER**: Press the POWER button to toggle the monitor ON or OFF. When the monitor is powered on and a video signal is present, the power indicator will glow blue. When the monitor is powered on but no video signal is present, the power indicator will glow red.

## Illustration of the remote controller

IR TEXT	Action	
	OSD OFF	OSD ON
	Power on/off	Power on/off
OK	No Action	Action
	No Action	Up or Decrease
	No Action	Down or Increase
	No Action	Left or Decrease
	No Action	Right or Increase
	Menu on	Menu off or Back
	No Action	Back
	Input Menu	No Action
	Brightness	Increase
	Volume	Decrease



## Input menu

VGA
DP
HDMI 2.0
HDMI-1
HDMI-2

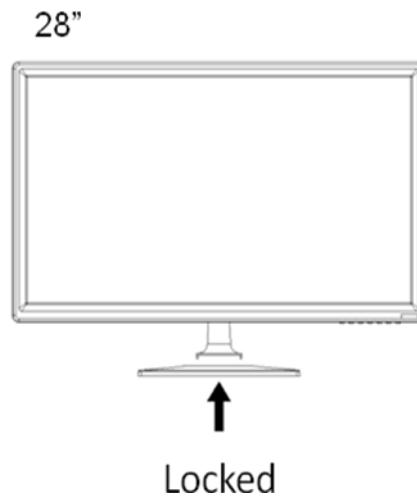
## SETUP

1. Install the stand and base, using the instructions in the following section.
2. Connect video cable(s) from your source device(s) to the monitor's input(s). The monitor has five video inputs (1x VGA, 3x HDMI, 1x DisplayPort) and can simultaneously display up to four video sources.
3. Plug the DC power connector on the AC power adapter into the DC IN port on the back of the monitor.
4. Plug the included AC power cord into the AC power adapter. Plug the other end into a nearby power outlet.

## MONITOR STAND & BASE

To install the base plate, perform the following steps:

1. Place a blanket or towel on a flat surface, such as a table or the floor.
2. Place the monitor face down on the blanket or towel.
3. Install the base plate:
  - a. 28": Insert plastic base plate and locked of the bottom side.



# ON-SCREEN DISPLAY MENU

Press the MENU button to access the OSD menu.

## Basic OSD Menu Operation

**DOWN:** When the OSD menu is displayed, pressing the DOWN button moves the selection highlight down.

**UP:** When the OSD menu is displayed, pressing the UP button moves the selection highlight up.

**SELECT:** When the OSD menu is displayed, pressing the SELECT button either selects the currently highlighted menu option or opens the currently highlighted menu entry for editing.

**MENU:** If the OSD menu is not displayed, pressing the MENU button opens the OSD menu. When the OSD menu is displayed pressing the MENU button will back out of a submenu or close the OSD menu if already at the top menu level.

## Quick brightness or volume adjustment control

If the OSD menu is not displayed,

- a. Pressing the **Vol-** or **Vol+** button pop-up the volume adjustment control.



- b. Pressing the **Up** button pop-up the brightness adjustment control.



- Pressing the **Vol+** button increases the brightness or volume.
- Pressing the **Vol-** button decreases the brightness or volume.
- Pressing the **UP** button decreases the brightness or volume.
- Pressing the **DOWN** button increases the brightness or volume.



## Input Source Menu

HDMI-2		Resolution: 1920x1080@60Hz
<b>Input Source</b>	VGA	
Brightness/Contrast	DP	
Color Setting	HDMI2.0	
Picture Quality Setting	HDMI-1	
Display	●HDMI-2	
Audio		
Multi-Window		
OSD		
Other		
	Window1: Input Source: HDMI-2 Resolution: 1920x1080@60Hz	Window2: Input Source: Resolution:
	Window3: Input Source: Resolution:	Window4: Input Source: Resolution:

Selects the main input source. You can select VGA, DP, HDMI2.0, HDMI-1, HDMI-2

## Brightness/Contrast Menu

HDMI-2		Resolution: 1920x1080@60Hz
Input Source	Brightness	50
<b>Brightness/Contrast</b>	Contrast	50
Color Setting	DCR	Off
Picture Quality Setting		
Display		
Audio		
Multi-Window		
OSD		
Other		
	Window1:	Window2:
	Input Source: HDMI-2	Input Source:
	Resolution: 1920x1080@60Hz	Resolution:
	Window3:	Window4:
	Input Source:	Input Source:
	Resolution:	Resolution:

**Brightness:** Adjusts the image brightness. The adjustment range is 0 to 100.

**Contrast:** Adjusts the image contrast. The adjustment range is 0 to 100.

**DCR:** DCR stands for Dynamic Contrast Ratio, which is a circuit that increases the effective picture contrast by changing the light intensity of the LED backlighting. DCR tends to cause too much contrast fluctuation when dealing with swiftly moving images and is usually better suited to applications use than for use with games. DCR can be turned On or Off.

## Color Setting Menu

HDMI-2		Resolution: 1920x1080@60Hz
Input Source	Gamma	2.2
Brightness/Contrast	Picture Mode	Standard
<b>Color Setting</b>	Color Temperature	Normal
Picture Quality Setting	Low Blue Light	OFF
Display	Hue	50
Audio	Saturation	50
Multi-Window		
OSD		
Other		
	Window1:	Window2:
	Input Source: HDMI-2	Input Source:
	Resolution: 1920x1080@60Hz	Resolution:
	Window3:	Window4:
	Input Source:	Input Source:
	Resolution:	Resolution:

**Gamma:** There are five gamma curves to be selected for your preference. The possible options are 1.8, 2.0, 2.2, 2.4, 2.6.

**Picture Mode:** This function contains four picture modes to be selected for your preference.

**Standard:** The best choice for document and text editing

**Photo:** The best choice for scenery photo display

**Game:** The best choice for game playing

**Movie:** The best choice for motion picture and movie

**Color Temperature:** Sets the color of the displayed image using one of four preset values. The possible options are Warm, Normal, Cool, and User.

**Low Blue Light:** There are three level to be selected for your preference. The possible options are Low Blue Light1, Low Blue Light2 and Low Blue Light3.

**Hue:** Allows you to independently adjust hue. The adjustment range is 0 to 100 for each item.

**Saturation:** Allows you to independently adjust saturation. The adjustment range is 0 to 100 for each item.

## Picture Quality Setting Menu

HDMI-2		Resolution: 1920x1080@60Hz
Input Source	Bypass	Off
Brightness/Contrast	Sharpness	50
Color Setting	Response Time	Off
<b>Picture Quality Setting</b>	Noise Reduction	Off
Display	Super Resolution	Off
Audio	Dynamic Luminous Control	Off
Multi-Window		
OSD		
Other		
	Window1:	Window2:
	Input Source: HDMI-2	Input Source:
	Resolution: 1920x1080@60Hz	Resolution:
	Window3:	Window4:
	Input Source:	Input Source:
	Resolution:	Resolution:

**Bypass:** Allows you to enable PQ settings. The possible options are Off, On.

**Sharpness:** Allows you adjust picture sharpness. The adjustment range is 0 to 100

**Response time:** Allows you to speed up response time. The possible options are Off, High, Middle, Low.

**Noise Reduction:** Allows you to reduce picture noise. The possible options are Off, High, Middle, Low.

**Uniformity Compensation:** Allows you to compensate picture uniformity. The possible options are Off, High, Middle, Low.

**Super Resolution:** Allows you to have better scaling quality. The possible options are Off, High, Middle, Low.

**Dynamic Luminous control:** Allows you to have stabilized luminance response. The possible options are Off, On.

## Display Menu

HDMI-2		Resolution: 1920x1080@60Hz
Input Source	Aspect Ratio	Wide Screen
Brightness/Contrast	H-Position	50
Color Setting	V-Position	50
Picture Quality Setting	Clock	50
<b>Display</b>	Phase	50
Audio	Auto Adjust	
Multi-Window		
OSD		
Other		
	Window1:	Window2:
	Input Source: HDMI-2	Input Source:
	Resolution: 1920x1080@60Hz	Resolution:
	Window3:	Window4:
	Input Source:	Input Source:
	Resolution:	Resolution:

**Aspect Ratio:** Adjusts the aspect ratio to “Wide Screen”, “4:3” ,“1:1” or auto.

**H-Position:** Adjusts the horizontal position of the image. The adjusting range is from **0** to **100**.  
(Only available for VGA input.)

**V-Position:** Adjusts the vertical position of the image. The adjusting range is from **0** to **100**.  
(Only available for VGA input.)

**Clock:** Adjusts the clock frequency The adjusting range is from **0** to **100**. (Only available for VGA input.)

**Phase:** Reduces image noise by adjusting Phase. The adjusting range is from **0** to **100**. (Only available for VGA input.)

**Auto Adjust:** Automatically fine tuning the input signal with correct H/V position, phase and clock settings. (Only available for VGA input.)

## Audio Menu

HDMI-2		Resolution: 1920x1080@60Hz
Input Source	Mute	Off
Brightness/Contrast	Volume	50
Color Setting	Audio Source	HDMI-2
Picture Quality Setting	Audio Output	Speaker
Display		
<b>Audio</b>		
Multi-Window		
OSD		
Other		
	Window1:	Window2:
	Input Source: HDMI-2	Input Source:
	Resolution:1920x1080@60Hz	Resolution:
	Window3:	Window4:
	Input Source:	Input Source:
	Resolution:	Resolution:

**Mute:** Toggles audio mute On or Off.

**Volume:** Sets the volume level. The adjustment range is 0 to 100.

**Audio Source:** Selects the input audio source. You can select Line in, DP, HDMI2.0, HDMI-1, HDMI-2.

**Audio Output:** Selects the audio output. You can select earphone, speakers.

## Multi-Window Menu

HDMI-2		Resolution: 1920x1080@60Hz
Input Source	Multi-Window	Off
Brightness/Contrast	Sub Win2 Input	HDMI2.0
Color Setting	Sub Win3 Input	HDMI-1
Picture Quality Setting	Sub Win4 Input	DP
Display	PIP Size	Medium
Audio	PIP Position	TopRight
<b>Multi-Window</b>	Swap	
OSD		
Other		
	Window1:	Window2:
	Input Source: HDMI-2	Input Source:
	Resolution: 1920x1080@60Hz	Resolution:
	Window3:	Window4:
	Input Source:	Input Source:
	Resolution:	Resolution:

**Multi-Window:** The available options are: Off, PIP Mode, PBP 2Win (2 images), PBP 3Win (3 images), PBP 4Win(4 images)

Selects the Picture-in-Picture or Picture-by-Picture mode to be used. PIP displays the content from Input 2 in a window laid over main input image. PBP displays the content of up to four inputs.

**Sub Win2 Input:** Selects which video input to use as the second image when set to PBP2Win mode. The possible options are VGA, DP, HDMI2.0, HDMI-1, HDMI-2

**Sub Win3 Input:** Selects which video input to use as the third image when set to PBP3Win mode. The possible options are VGA, DP, HDMI2.0, HDMI-1, HDMI-2.

**Sub Win4 Input:** Selects which video input to use as the fourth image when set to PBP4Win mode. The possible options are VGA, DP, HDMI2.0, HDMI-1, HDMI-2.

**PIP Size:** Adjusts the size of the PIP window. The possible options are Small, Medium, and Large.

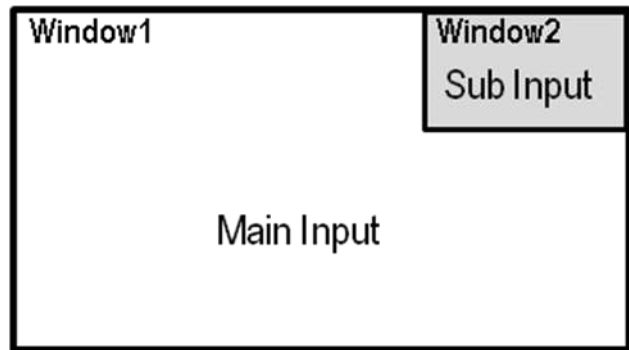
**PIP Position:** Adjusts the location of the PIP window. The possible options are Top-Right, Top-Left, Bottom-Right, and Bottom-Left.

**Swap:** When using PIP or PBP2Win modes, selecting the Swap entry switches the display positions of the Main Input and Input 2. The Swap entry is not available in PBP3Win and PBP4Win modes.

## PIP Mode

Selects which video input to use as the second image when set to PIP mode.

**Sub Win2 Input:** Selects which video input to use as the second image when set to PIP mode. The possible options are VGA, DP, HDMI2.0, HDMI-1, HDMI-2



## ● PIP Size

Adjusts the size of the PIP window.

PIP Size	Small
	Medium
	Large



PIP Size	Small
	<b>Medium</b>
	Large



PIP Size	Small
	Medium
	<b>Large</b>





● **PIP Position**

Adjusts the location of the PIP window (Window2).

PIP Position	<b>TopRight</b>
	TopLeft
	BottomRight
	BottomLeft



PIP Position	TopRight
	<b>TopLeft</b>
	BottomRight
	BottomLeft



PIP Position	TopRight
	TopLeft
	<b>BottomRight</b>
	BottomLeft

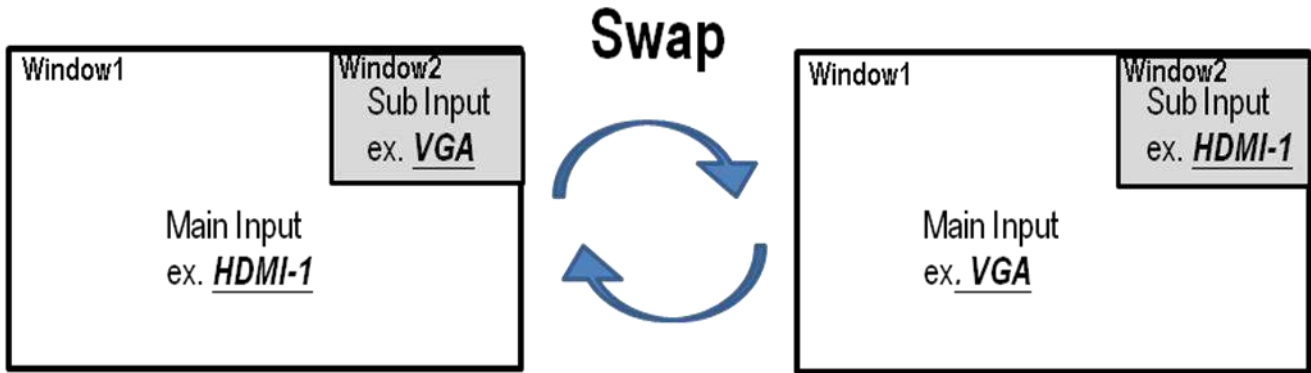


PIP Position	TopRight
	TopLeft
	BottomRight
	<b>BottomLeft</b>

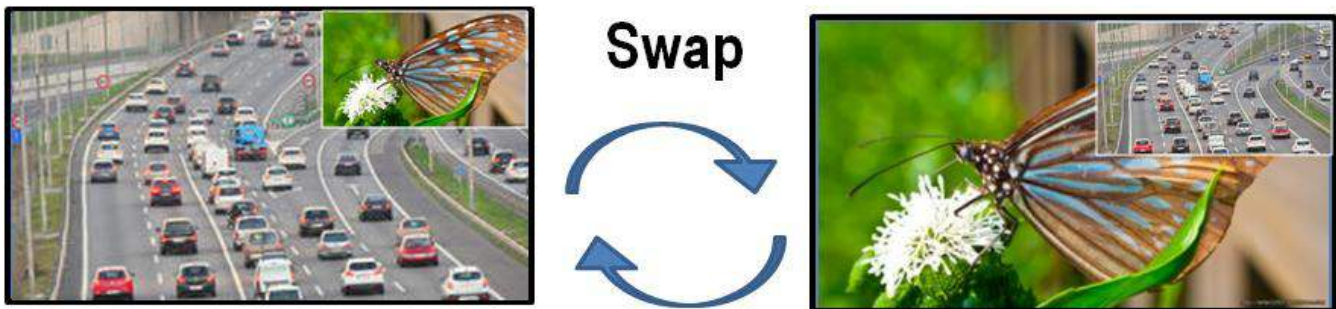


● **Swap**

Selecting the Swap entry switches the display positions of the Main Input and Sub Input.



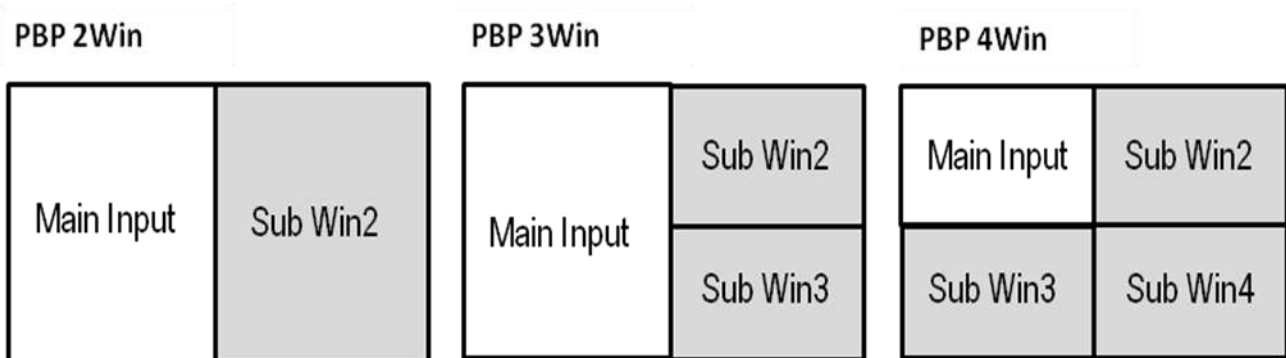
For example as below,



**PBP Mode**

PBP displays the content of up to four inputs. Selects which video input to use as the second, third or fourth image when set to PBP2Win, PBP3Win or PBP4Win mode. The possible options are VGA, DP, HDMI2.0, HDMI-1, HDMI-2

The each window position are as below,



Each PBP mode are show as below,

- PIP Mode
- PBP 2Win**
- PBP 3Win
- PBP 4Win



- PIP Mode
- PBP 2Win
- PBP 3Win**
- PBP 4Win



- PIP Mode
- PBP 2Win
- PBP 3Win
- PBP 4Win**



# OSD

HDMI-2		Resolution: 1920x1080@60Hz
Input Source	Language	English
Brightness/Contrast	OSD H-Position	50
Color Setting	OSD V-Position	50
Picture Quality Setting	OSD Transparency	20
Display	OSD Time Out	20
Audio	OSD Rotation	Normal
Multi-Window		
<b>OSD</b>		
Other		
	Window1:	Window2:
	Input Source: HDMI-2	Input Source:
	Resolution: 1920x1080@60Hz	Resolution:
	Window3:	Window4:
	Input Source:	Input Source:
	Resolution:	Resolution:

**Language:** This menu allows you to set the language to be used in the OSD. The possible options are English, Chinese, Korean, Russian , Spanish, Japanese and French.

**OSD H-Position:** Adjusts the horizontal position of the OSD menu. The adjustment range is 0 to 100.

**OSD V-Position::** Adjusts the vertical position of the OSD menu. The adjustment range is 0 to 100.

**OSD Transparency:** Adjusts how transparent or opaque the OSD menu will appear on screen. The adjustment range is 0 to 100.

**OSD Time Out:** Sets the amount of time in seconds that the OSD menu will display without any input before it automatically closes. The adjustment range is 0 to 100.

**OSD Rotation:** Allows OSD Menu counterclockwise rotation.

## Other Menu

HDMI-2		Resolution: 1920x1080@60Hz
Input Source	DP Version	DP1.2
Brightness/Contrast	FreeSync[Adaptive Sync]	off
Color Setting	Reset	
Picture Quality Setting		
Display		
Audio		
Multi-Window		
OSD		
<b>Other</b>		
	Window1: Input Source: HDMI-2 Resolution: 1920x1080@60Hz	Window2: Input Source: Resolution:
	Window3: Input Source: Resolution:	Window4: Input Source: Resolution:

**DP Version:** The DP version is 1.2.

**Reset:** Recall default value except of language.

# TROUBLESHOOTING

Following are some common problems and possible solutions. If you cannot solve a problem yourself, please contact Technical Support for assistance.

Q: The power LED is off.

A: Verify that the power adapter is plugged into the monitor. Verify that the power cord is plugged into both the AC adapter and the power outlet. Verify that the power outlet is live by plugging something else into it, such as a lamp.

Q: The picture is weak, washed out, or over saturated.

A: Adjust the Brightness and/or Contrast.

Q: The image flashes or distorts.

A: Verify that there are no nearby sources of Radio Frequency or Electromagnetic Interference (RFI or EMI).

Q: The power LED is glowing blue, but the display is blank.

A: Press a key on the keyboard to ensure the computer is not asleep or that a screen saver is active. Verify that the proper input is selected. Verify that the display cable is securely attached to both the display and the video source. Replace the cable with another of the same type to verify that it is not faulty.

Q: One of the primary colors (red, green, or blue) is missing.

A: Replace the video cable with another of the same type. Connect to a different video source to verify that there are no problems with the video card or source device.

Q: The colors are not correct.

A: Adjust the color temperature or the individual mix of red, green, and blue picture elements.

# SPECIFICATIONS

SPECIFICATION	LSM4K28
Video System	NTSC/PAL (Auto Sensing)
Max Resolution	3840x2160 (4K) @ 60Hz
Remote Control	Included
Supported Resolutions	3840*2160, 2560*1440, 1920*1080, 1680*1050, 1400*900, 1280*1024, 1024*768, 800*600, 640*480
OSD (On Screen Display)	Yes
Auto Adjustment	Yes (VGA Input Only)
Backlight	LED Backlight
Active Display Area	28" Diagonal
Video Input Connections	VGA, DP, HDMI 2.0, HDMI-1, HDMI-2
VGA	1920 x 1080 Max Resolution
Display Port & HDMI 2.0	4K UHD @ 60Hz Max Resolution (DP Version 1.2, HDMI Version 2.0)
HDMI-1, HDMI-2	4K UHD @ 30Hz Max Resolution (HDMI Version 1.4)
Aspect Ratio	16:9, 4:3, 1:1, Auto (Selectable from OSD)
Pixel Pitch	0.16(H) x 0.16(V) mm
Color Depth	1.07G Colors
Brightness	300 cd/m2
Contrast Ratio	1000:1
Viewing Angle	Vertical -80°~80° / Horizontal -85°~85°
Response Time	5 ms
Languages	English, Russian, Spanish, French, Chinese, Japanese, Korean
Special Features	PIP, PBP (2, 3 & 4 Window)
Audio Connections	3.5mm Jack Input/Output
Speakers	5W x2
Power Supply	External 12Volt DC / 4Amp
Input Voltage for Power Supply	AC 100-240V 50/60HZ
Power Consumption	42W Max. in "ON" Mode
Dimensions w/Stand (W x H x D)	663(W) x 453(H) x 175(D) mm
Net Weight w/Stand	5.08kgs (11.2lbs)
Vesa Mounting	100 x 100mm with M4 Hole
Housing Material / Color	Plastic / Black
Operating Temperature	Operation: 0°~40°C (32° ~104°F)

# Supplier's Declaration of Conformity

47 CFR § 2.1077 Compliance Information Unique Identifier:  
LSM4K28

CANADA ICES-0003 (A) / NMB-003 (A)

## Responsible Party - U.S. Contact Information

Liberty Wire & Cable, Inc.  
1490 Garden of the Gods Rd,  
Ste F Colorado Springs, CO  
80907  
855.388.7422

## FCC Compliance Statement

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

**CAUTION:** Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## Warranty:

The manufacturer warrants this product to be free from defects in workmanship and materials, under normal use and conditions, for a period of two (2) years from the original invoice date.