

# User Manual 28" 4K 3840 x 2160@60Hz LED-backlit LCD



**AP-K28** Aluminum front bezel

**NAP-K28** Front NEMA4 / IP65





**DP-K28** Aluminum Front Panel



Designed and manufactured by Austin Hughes

#### Legal Information

First English printing, January 2024

Information in this document has been carefully checked for accuracy; however, no guarantee is given to the correctness of the contents. The information in this document is subject to change without notice. We are not liable for any injury or loss that results from the use of this equipment.

#### Safety Instructions

# Please read all of these instructions carefully before you use the device. Save this manual for future reference.

- Unplug equipment before cleaning. Don't use liquid or spray detergent; use a moist cloth.
- Keep equipment away from excessive humidity and heat. Preferably, keep it in an air-conditioned environment with temperatures not exceeding 40° Celsius (104° Fahrenheit).
- When installing, place the equipment on a sturdy, level surface to prevent it from accidentally falling and causing damage to other equipment or injury to persons nearby.
- When the equipment is in an open position, do not cover, block or in any way obstruct the gap between it and the power supply. Proper air convection is necessary to keep it from overheating.
- Arrange the equipment's power cord in such a way that others won't trip or fall over it.
- If you are using a power cord that didn't ship with the equipment, ensure that it is rated for the voltage and current labelled on the equipment's electrical ratings label. The voltage rating on the cord should be higher than the one listed on the equipment's ratings label.
- Observe all precautions and warnings attached to the equipment.
- If you don't intend on using the equipment for a long time, disconnect it from the power outlet to prevent being damaged by transient over-voltage.
- Keep all liquids away from the equipment to minimize the risk of accidental spillage. Liquid spilled on to the power supply or on other hardware may cause damage, fire or electrical shock.
- Only qualified service personnel should open the chassis. Opening it yourself could damage the equipment and invalidate its warranty.
- If any part of the equipment becomes damaged or stops functioning, have it checked by qualified service personnel.

#### What the warranty does not cover

- Any product, on which the serial number has been defaced, modified or removed.
- Damage, deterioration or malfunction resulting from:
  - Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
  - $\hfill\square$  Repair or attempted repair by anyone not authorized by us.
  - □ Any damage of the product due to shipment.
  - □ Removal or installation of the product.
  - $\hfill\square$  Causes external to the product, such as electric power fluctuation or failure.
  - $\hfill\square$  Use of supplies or parts not meeting our specifications.
  - $\Box$  Normal wear and tear.
  - $\hfill\square$  Any other causes which does not relate to a product defect.
- Removal, installation, and set-up service charges.

#### **Regulatory Notices Federal Communications Commission (FCC)**

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in business, industrial and commercial environments.

Any changes or modifications made to this equipment may void the user's authority to operate this equipment. 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:

- Re-position 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.

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# **Before Installation**

- It is very important to mount the equipment in a suitable cabinet or on a stable surface.
- Make sure the place has a good ventilation, is out of direct sunlight, away from sources of excessive dust, dirt, heat, water, moisture and vibration.

## Unpacking

The equipment comes with the standard parts shown in package content. Check and make sure they are included and in good condition. If anything is missing, or damaged, contact the supplier immediately.

## How To Clean Your LCD Monitor

# A Caution :

- To avoid the risk of electric shock, make sure your hands are dry before unplugging your monitor from or plugging your monitor into an electrical outlet.
- When you clean your monitor, do not press down on the LCD screen. Pressing down on the screen can scratch or damage your display. Pressure damage is not covered under warranty.
- Use only cleansers made specifically for cleaning monitors and monitor screens. Cleansers not made to clean monitors and monitor screens can scratch the LCD display or strip off the finish.
- Do not spray any kind of liquid directly onto the screen or case of your monitor. Spraying liquids directly onto the screen or case can cause damage which is not covered under warranty.
- Do not use paper towels or abrasive pads to clean your monitor. Using an abrasive pad or any wood based paper product such as paper towels can scratch your LCD screen.

#### **Cleaning Your Monitor**

To clean your LCD safely, please follow these steps :

- ① Disconnect the power cord.
- ② Gently wipe the surface using a clean, dry microfiber cloth. Use as little pressure as possible.

#### **Cleaning Tough Marks and Smudges**

To remove tough marks and smudges, please follow these steps :

- ① Disconnect the power cord.
- ② Spray a small amount of non-abrasive cleanser on a microfiber cloth.

Caution : Do not spray or apply any liquids directly onto the monitor. Always apply the solution to your microfiber cloth first, not directly on the parts you are cleaning.

- ③ Gently wipe the surface. Use as little pressure as possible.
- ④ Wait until your monitor is completely dry before plugging it in and powering it up.

# < Part 1 > AP-K28 / NAP-K28 < 1.1 > Package Content

#### 28" 4K Display

# AP-K28 / NAP-K28

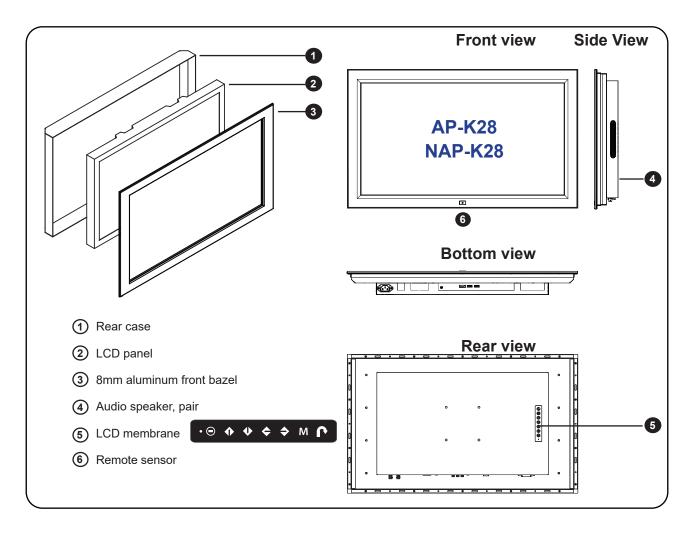


28" 4K LCD Display X 1 6ft DP cable X 1 Power cord X 1 Remote controller X 1

#### Basic I/O

HDMI 1.4 HDMI 2.0 DP	Audio out	Power
----------------------	--------------	-------

# < 1.2 > Structure Diagram

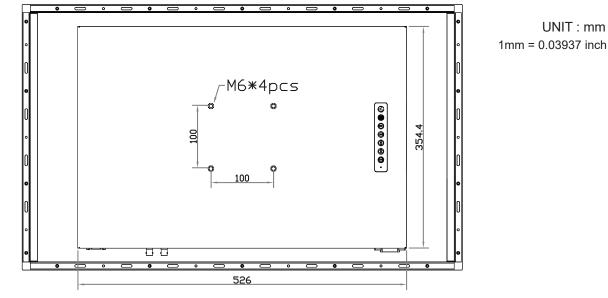


Model	Product Dimension (W x D x H)Packing Dimension (W x D x H)		Net Weight	Gross Weight
AP-K28	703.9 x 71.3 x 424.5 mm	785 x 175 x 527 mm	16.8 kg	20.4 kg
	27.7 x 2.8 x 16.7 inch	30.9 x 6.9 x 20.7 inch	37 lb	44.9 lb
NAP-K28	703.9 x 71.3 x 424.5 mm	785 x 175 x 527 mm	18.6 kg	22.2 kg
	27.7 x 2.8 x 16.7 inch	30.9 x 6.9 x 20.7 inch	40.9 lb	48.8 lb

**Front View** 

< 1.2 > Dimension

Rear View



**AP-K28** 

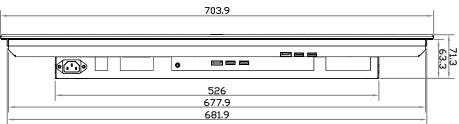
**NAP-K28** 

•

623.9

703.9

# Bottom View



#### 28" 4K Display

40.9

344.3 424.5

40

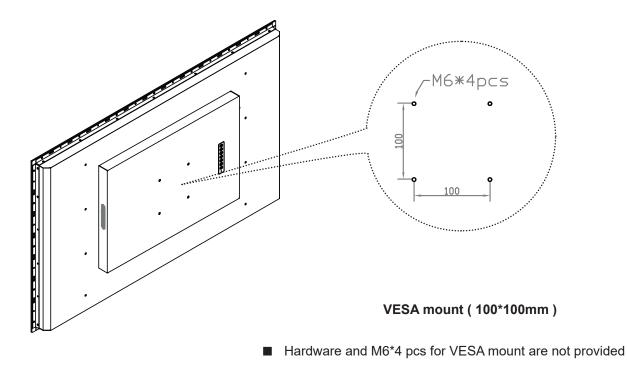
**Side View** 

354.4

71.3

35.3

## < 1.3 > VESA Installation



# < Part 2 > DP-K28 < 2.1 > Package Content

#### **DP-K28**

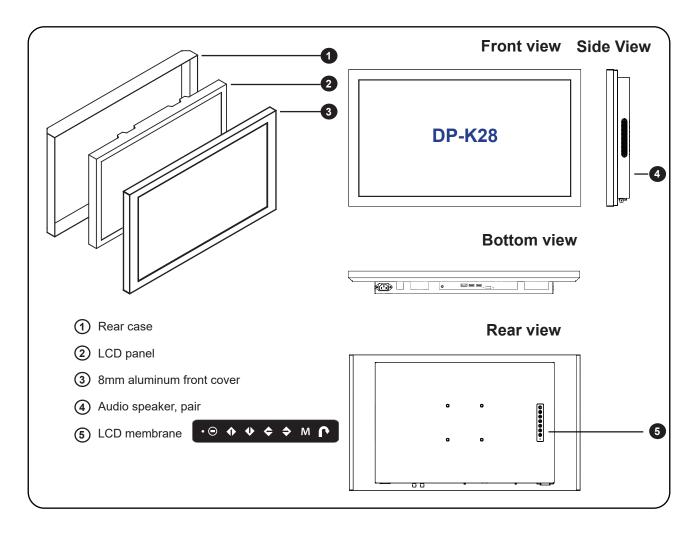


28" 4K LCD Display X 1 6ft DP cable X 1 Power cord X 1 Remote controller X 1

#### Basic I/O

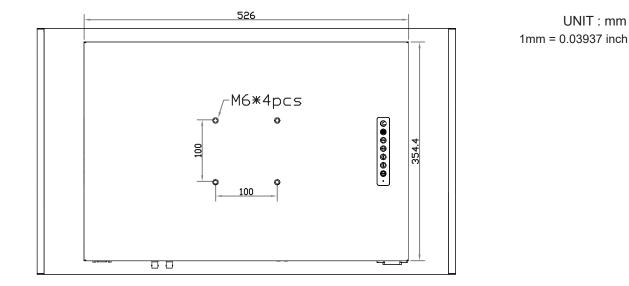
HDMI 1.4 HDMI 2.0 DP	Audio out	Power
----------------------	--------------	-------

# < 2.2 > Structure Diagram

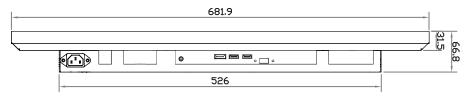


Model	Product Dimension (W x D x H)	Packing Dimension (W x D x H)	Net Weight	Gross Weight
DP-K28	681.9 x 66.8 x 402.5 mm	785 x 175 x 527 mm	14.8 kg	18.4 kg
	26.8 x 2.6 x 15.8 inch	30.9 x 6.9 x 20.7 inch	32.6 lb	40.5 lb

**Rear View** 

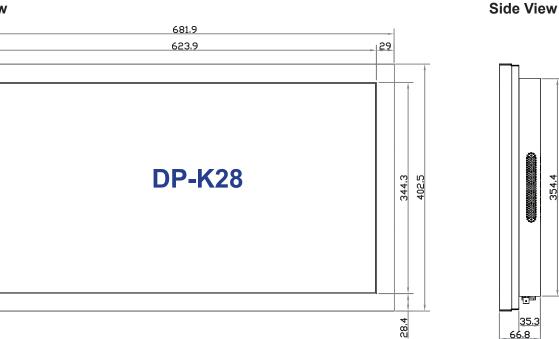


# **Bottom View**



# < 2.2 > Dimension

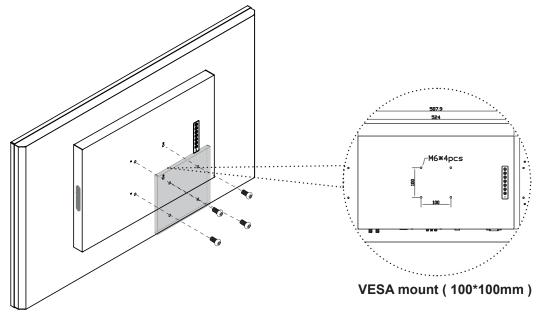
**Front View** 





#### 28" 4K Display

## < 2.3 > VESA Installation



■ Hardware and M6\*4 pcs for VESA mount are not provided

# < Part 3 > OP-K28 < 3.1 > Package Content

#### **OP-K28**

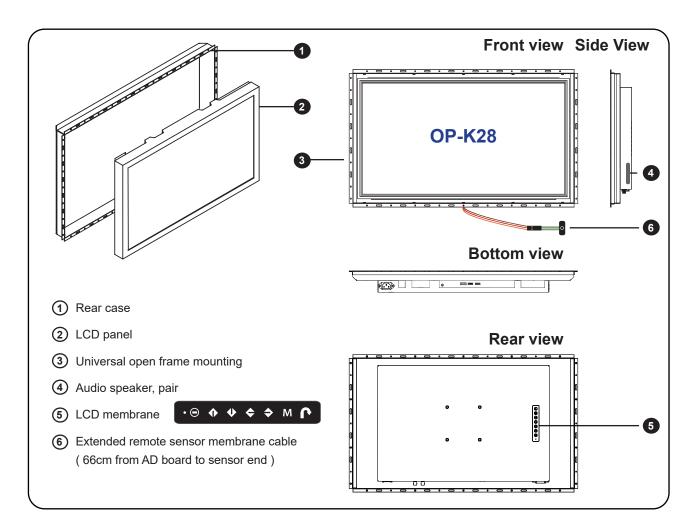


28" 4K LCD Display X 1 6ft DP cable X 1 Power cord X 1 Remote controller X 1

#### Basic I/O

HDMI 1.4 HDMI 2.0 DP	Audio out	Power
----------------------	--------------	-------

## < 3.2 > Structure Diagram



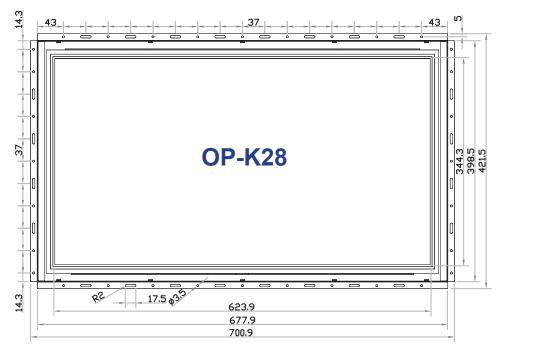
Model	Product Dimension (W x D x H)Packing Dimension (W x D x H)		Net Weight	Gross Weight
OP-K28	700.9 x 64.8 x 421.5 mm	785 x 175 x 527 mm	12.7 kg	16.3 kg
	27.6 x 2.6 x 16.6 inch	30.9 x 6.9 x 20.7 inch	27.9 lb	35.9 lb

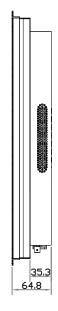
# < 3.2 > Dimension

#### 28" 4K Display

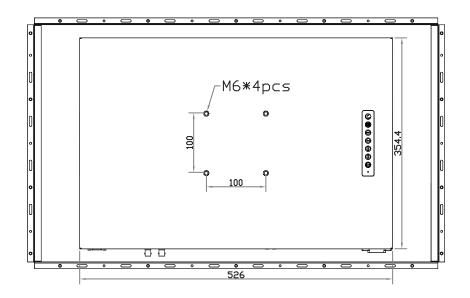
#### **Front View**

Side View



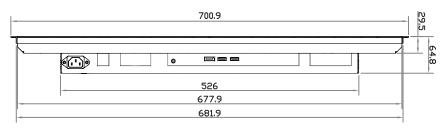


#### **Rear View**



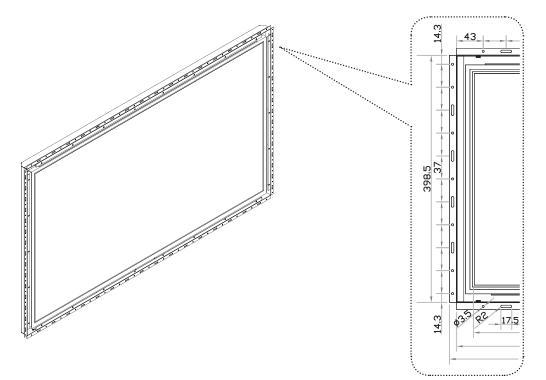
UNIT : mm 1mm = 0.03937 inch

#### **Bottom View**

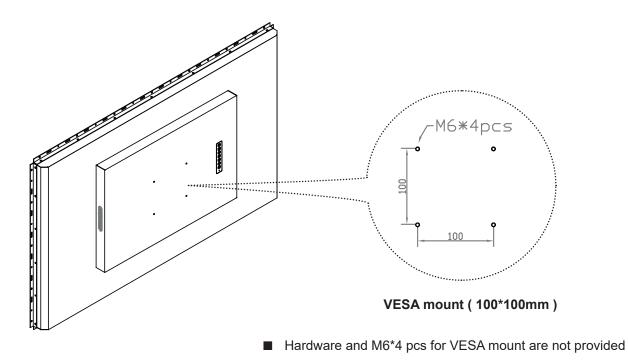


## < 3.3 > Installation

# (I) Universal mount



# (II) VESA mount (100\*100mm)



# < Part 4 >

# < 4.1 > Product Specifications

#### 28" 4K Display

Mechanical Design	AP-K28	NAP-K28	DP-K28	OP-K28	
Protection	8mm front bezel	NEMA 4 / IP65	front cover	open frame	
Front Panel		Black, RAL 9005			
Rear Casing	Black, RAL 9005				
VESA mount	100 x 100 mm				
Universal mount	-		-	ready	
Overhead titled wall-mount	option		option	-	
Desktop stand	option		option	-	

LED-backlit LCD Panel	
Panel Size ( diagonal )	28-inch Widescreen TFT color LCD
Native resolution	3840 x 2160@60Hz
Brightness ( cd/m <sup>2</sup> )	300
Contrast Ratio ( typ. )	1000 : 1
Colors	1.07 Billion, 10-bit
Viewing Angle ( L/R/U/D )	85/85/80/80
Response Time ( ms )	5
Dot pitch ( mm )	0.181
Display Area ( mm )	620.93H x 341.28V
Surface treatment	Anti-glare
Surface hardness	3Н
Backlight Type	LED
MTBF(hrs)	30,000

Video	
Digital Display port	DP 1.2 / HDCP 1.3
HDMI	HDMI 2.0 / HDCP 2.2
	HDMI 1.4 / HDCP 1.4

Audio	
Output Connector	3.5mm stereo jack
Resistance / Power level	30kΩ / 2.8V
Speaker: Dual Stereo	10W x 2

\*When the audio output is connected, speaker output is OFF

Power	
Input	Auto-sensing 100 to 240VAC, 50 / 60Hz
Consumption:	
Screen ON	Max. 52W
Power saving mode	Max. 9W
Power button OFF	Max. 2W

Compliance	
EMC	FCC & CE
Safety	CE / LVD & UKCA
Environment	RoHS3 & REACH / WEEE

# < 4.1 > Product Specifications

Environmental Cor	nditions	
Operating	Temperature	0 to 55°C degree
	Humidity	10~90%, non-condensing
	Altitude	16,000 ft
Storage / Non-operating	Temperature	-20 to 60°C degree
	Humidity	5~90%, non-condensing
	Altitude	40,000 ft
	Shock	10G acceleration(11ms duration)
	Vibration	10~300Hz 0.5G RMS random vibration

Physical Specification	AP-K28	NAP-K28	DP-K28	OP-K28
Product(W x D x H)				
mm	703.9 x 71	.3 x 424.5	681.9 x 66.8 x 402.5	700.9 x 64.8 x 421.5
inch	27.7 x 2.	.8 x 16.7	26.8 x 2.6 x 15.8	27.6 x 2.6 x 16.6
Packing(W x D x H)				
mm		75 x 527	785 x 175 x 527	785 x 175 x 527
inch	30.9 x 6.	.9 x 20.7	30.9 x 6.9 x 20.7	30.9 x 6.9 x 20.7
Net Weight	16.8 kg / 37 lb	18.6 kg / 40.9 lb	14.8 kg / 32.6 lb	12.7 kg / 27.9 lb
Gross Weight	20.4 kg / 44.9 lb	22.2 kg / 48.8 lb	18.4 kg / 40.5 lb	16.3 kg / 35.9 lb
Chassis color	Dark			
Chassis materials	Aluminum			

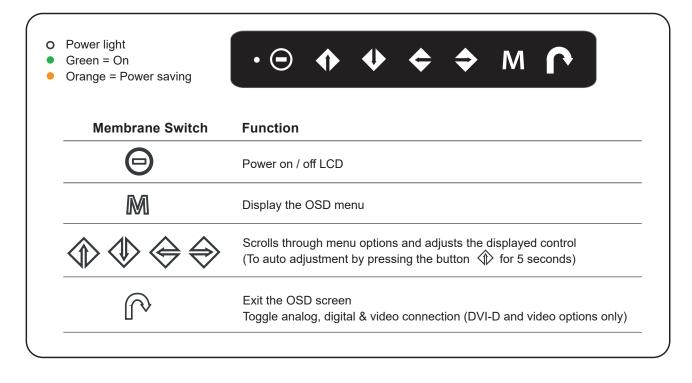
\* All dimensions stated are subject to change if options are selected / integrated to base model part codes

Applicable Format		
Display Port Input	PC Signal	3840 x 2160 x 60Hz
		2560 x 1440 x 60Hz
		1920 x 1080 x 60Hz
		1920 x 1200 x 60Hz
		1600 x 1200 x 60Hz
		1280 x 1024 x 60 / 75Hz
		1024 x 768 x 60 / 70 / 75Hz
		800 x 600 x 60 / 72 / 75Hz
		720 x 400 x 70Hz
		640 x 480 x 60 / 72 / 75Hz
	Audio Signal	2ch Linear PCM
HDMI Input	HDMI 2.0 / PC signal	Same as Display port
	HDMI 1.4	3840 x 2160 x 30Hz
		2560 x 1440 x 60Hz
		1920 x 1080 x 50 / 60Hz ( 1080p )
		1920 x 1080 x 25 / 30Hz ( 1080i )
		1280 x 720 x 50 / 60Hz ( 720p )
		720 x 480 x 50 / 60Hz ( 576p / 480p )
	Audio Signal	2ch Linear PCM

\* In some circumstances, if the user connects the LCD to PC via HDMI port for video and audio signals, the LCD may display incorrectly on a full screen. If so, please adjust the display card setting on display size to fix the issue.

# < 4.2 > On-screen Display Operation ( OSD )

28" 4K Display



# < 4.2 > On-screen Display Operation ( OSD )

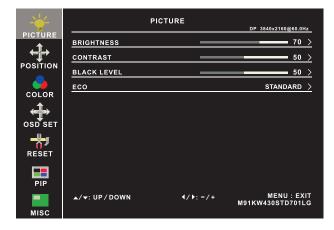
#### 1 Picture

Brightness : Adjust the screen brightness

Contrast	: Adjust the difference between the image background
	( black level ) and the foreground ( white level )
Black level	: Adjust background black level of the screen

- Full Screen / 4:3 / 5:4 / Pixel to Pixel

Eco : Screen in power saving mode



	F	POSITION	DP 384	0x2160@60.0I	Ηz
PICTURE	PICTURE SIZE		FULL	SCREEN	>
	DP VERSION			DP 1.2	>
COLOR					
OSD SET					
RESET					
PIP					
MISC	▲/▼: UP/DOWN	<b>∢/</b> ▶: −/+		MENU:EX 30STD7011	

#### 3 Color

2

Position

Picture size : Adjust the image size

DP version : Select the DP version

Color temperature	: User / Warm / Cool / 5400k mode and Red / Green / Blue color balance
Sharpness	: Adjust the image from weak to sharp
Hue	: Adjust the screen hue value
Saturation	: Adjust the saturation of the image color
Dynamic Iuminous control	: Control the dynamic brightness

#### COLOR DP 3840x2160@60.0Hz PICTURE COLOR TEMPERATURE USER >←Î→ SHARPNESS 50 > POSITION HUE 50 > COLOR 50 > SATURATION DYNAMIC LUMINOUS CONTROL OFF OSD SET RESET PIP MENU: EXIT M91KW430STD701LG -▲/▼: UP/DOWN <// >: -/+ MISC

#### (4) OSD Set

Language	: Select the language in which the OSD menu is displayed - English
OSD H-Position	: Align the screen image left or right
OSD V-Position	: Align the screen image up or down
OSD time out	: Adjust the screen timeout
OSD transparency	: Adjust the screen transparency
OSD size	: Adjust the screen size - Normal / Small
OSD rotation	: Rotate the screen - 90° / 180° / 270°

	OSE	) SET	DP 3840x2160@60.0Hz
	LANGUAGE		
←	OSD H-POSITION		<b>50</b> >
POSITION	OSD V-POSITION		50 >
	OSD TIME OUT		60 >
COLOR	OSD TRANSPARENCY		0 >
	OSD SIZE		
OSD SET	OSD ROTATION		OFF >
RESET			
PIP			
MISC	▲/▼: UP/DOWN	<b>4/</b> ▶: <b>-</b> /+	MENU:EXIT M91KW430STD701LG

# < 4.2 > On-screen Display Operation (OSD)

#### **5** Reset

Reset : Return the adjustment back to factory setting

#### 28" 4K Display

		RESET	DP 3840x2160@60.0Hz
PICTURE	RESET		
← <b>}</b> →			
POSITION			
<b>_</b>			
COLOR			
OSD SET			
RESET			
PIP			
MISC	▲/ <del>▼</del> : UP/DOWN	<b>∢/</b> ▶: -/+	MENU : EXIT M91KW430STD701LG

#### 6 PIP

PIP mode	: Enter into PIP / PBP setting - PIP MODE / PBP 2WIN ( Main screen + 1 sub screen ) / PBP 3WIN ( Main screen + 2 sub screen ) / PBP 4WIN ( Main screen + 3 sub screen ) Select the signal input of each sub screen
PIP size	: Adjust the size of the Sub screen - Small / Medium / Large / Huge
PIP position	: Adjust the position of the Sub screen - Top Left / Top Right / Bottom Left / Bottom Right
Swap	: Swap the input signal of PIP / PBP sub screen

		PIP	DP 3840x2160@60.	0Hz
PICTURE	PIP MODE		PIP MODE	>
←}	WINDOW2 INPUT		HDMI2	>
POSITION	WINDOW3 INPUT		HDMI1	>
	WINDOW4 INPUT		DP	>
COLOR	PIP SIZE		MEDIUM	>
←∰→	PIP POSITION		TOP LEFT	>
OSD SET	SWAP			
<b></b> ;				
RESET				
PIP				
MISC	▲/ <del>▼</del> : UP/DOWN	<b>∢/</b> ▶: −/+	MENU:E M91KW430STD701	

#### ⑦ MISC

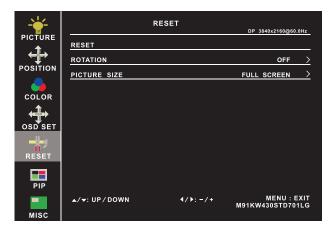
Signal source	e : Select the signal source - DP / HDMI1 / HDMI2
Mute	: Turn off the surrounding sound
Audio in	: Auto / Line in / DP
Volume	: Adjust the volume of sound
Sleep mode	: Set the off time - 10 min / 20 min / 30 min / 50 min / 60 min / 120 min / 240 min

		MISC	DP 3840x2160@60.0Hz
	SIGNAL SOURCE		DP >
←ţ→	MUTE		0FF >
POSITION	AUDIO IN		AUTO >
	VOLUME		<b>8</b> >
COLOR	SLEEP MODE		OFF >
OSD SET			
PIP			
MISC	▲/▼: UP/DOWN	<b>∢/</b> ▶: -/+	MENU:EXIT M91KW430STD701LG

#### **Options on Reset page**

Rotation	: Rotate the image in Full screen or 1:1
	- 90° / 180° / 270°

Picture size : Adjust the image size in Full screen or 1:1

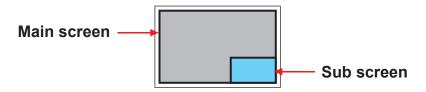


# < 4.3 > How to Use Picture In Picture (PIP) / Picture By Picture (PBP)

#### < 4.3.1 > Picture in Picture ( PIP )

#### Mode

Display the Sub screen in the Main screen. OSD Menu  $\rightarrow$  MISC  $\rightarrow$  PIP Mode  $\rightarrow$  Large / Small / OFF



#### Position

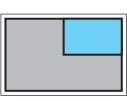
Adjust the position of the Sub screen (top left, bottom left, top right, bottom right) OSD Menu  $\rightarrow$  MISC  $\rightarrow$  PIP Position  $\rightarrow$  top left / top right / bottom left / bottom right



top left



bottom left



top right



bottom right

#### Size

Adjust the size of the Sub screen (Large / Small ) OSD Menu  $\rightarrow$  MISC  $\rightarrow$  PIP Mode  $\rightarrow$  Large / Small

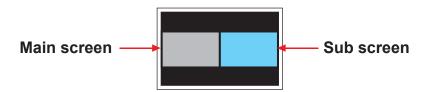
#### Size of Sub screen

LCD Monitor	Large Sub screen	Small Sub screen
1920 x 1200	552 x 414	480 x 360
1920 x 1080	552 x 414	480 x 360
1440 x 900	414 x 310	360 x 270
1366 x 768	392 x 294	340 x 254
1280 x 1024	368 x 276	320 x 240

#### < 4.3.2 > Picture By Picture ( PBP )

#### Mode

Display the Sub screen next to the Main screen. OSD Menu  $\rightarrow$  MISC  $\rightarrow$  PIP Mode  $\rightarrow$  PBP



#### Size

LCD Monitor	Main / Sub screen
1920 x 1200	955 x 716
1920 x 1080	955 x 716
1440 x 900	715 x 536
1366 x 768	678 x 508
1280 x 1024	635 x 476

#### < 4.3.3 > PIP / PBP Source

To select an input signal for PIP / PBP Sub screen. OSD Menu  $\rightarrow$  MISC  $\rightarrow$  PIP Source  $\rightarrow$  HDMI / SDI

#### The PIP / PBP is operable in the following table :

Sub Main	HDMI	SDI
номі	х	0
SDI	0	х

#### < 4.4 > How to Use RC-2 Remote Controller

1		
2_		
G		
_		$(4)$ (5) (6) ( $\land$ )
3—		
4		
5—		
6—		
•		
9		
20-		SOURCE SWAP POSITION AUDIO
21-		
		Water proof
1	INPUT	Select the source
1 2 3 4 5	<u> </u>	Switches on or off the TV
<u> </u>	0 - 9	Only use in TV mode. Select channels. For channel numbers 10 and
<u> </u>		above, enter the second digit within two seconds.
<u>4</u>	AUTO	Auto adjust
6	MENU	Display the menu on the screen or go to the previous menu Go to the upper menu or select the previous value /
_		Go to the next menu or select the next value /
6	▲ / ▼ / ◀ / ► / I	ENTER Decrease the setting value / Increase the setting value or enter to the select item setting
		Enter to the select item settings or excude the setting
	BACK	Back to previous value
<u>®</u>	MUTE Vol + / -	Turn on or off the speaker Increase or decrease the speaker volume
<u> </u>	CH + / -	For TV model only, increase or decrease the channel number
(1)	FREEZE	Reserve for OEM model
12	- /	For setting input single or double digits
13	ASPECT	Adjust the screen size
<u>(14)</u>	SELECT	To select the existing item
<u>(15</u>	SLEEP	Select the sleeping time
(16)	EXIT	Exit the menu or cancel
	PIP functions	
17	PIP functions PIP	Picture in picture

# < Part 5 > Options

# < 5.1 > Option Table

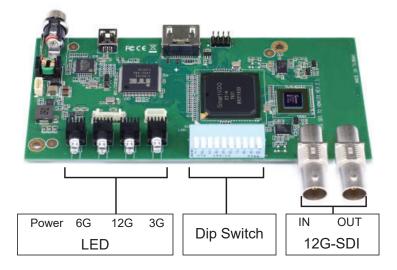
#### 28" 4K Display

Options	AP / NAP	DP	ОР
SDI	$\checkmark$	$\checkmark$	$\checkmark$
MCS multi-screen control	$\checkmark$	$\checkmark$	$\checkmark$
Touchscreen			
DC Power	$\checkmark$	$\checkmark$	$\checkmark$
MIL-type / lockable connector	$\checkmark$	$\checkmark$	$\checkmark$
Quad display	$\checkmark$	$\checkmark$	$\checkmark$

# < 5.2 > Options : 12G / 4K60 / SD-SDI

Austin Hughes' SDI input is an ideal solution for the broadcast-grade video and high resolution CCTV market.

Designed for use with displays, a SDI input module can support up to 3840 x 2160p @60Hz resolution without using additional space or power and it comes standard with a 2-year warranty.



#### **Product Specifications**

Compatible Video Format		
12G-SDI IN	3840 x 2160p	@60 / 50fps
6G-SDI IN	3840 x 2160p	@30 / 25 / 24fps
3G-SDI IN	1920 x 1080p	@60 / 50fps
	1920 x 1080p	@30 / 25 / 24fps
HD-SDI IN	1920 x 1080i 1280 x 720p	@60 / 50fps @60 / 50fps
	6G-SDI IN	6G-SDI IN         3840 x 2160p           3G-SDI IN         1920 x 1080p           HD-SDI IN         1920 x 1080p

#### **Dip Switch Mode**

Output Color	4	5
YUV444	OFF	OFF
YUV422	OFF	ON
RGB444	ON	OFF
YUV420	ON	ON

EQ	6	7
Auto	OFF	OFF
Disable	OFF	ON
Enable	ON	OFF

Out1 Cable length 8		
Short OFF		
Long ON		



## < 5.3 > Options : 3G / HD / SD-SDI input



Austin Hughes' SDI input is an ideal solution for the broadcastgrade video and high resolution CCTV market.

Designed for use with UltraView displays, a SDI input module can support up to 1080p @60Hz resolution without using additional space or power and it comes standard with a 2-year warranty.

SDI

	HDMI 1.4 HDMI 2.0 DP	Audio	Power
in - out		out O	

INPUT	3G-SDI IN	BNC x 1 / 0.8Vp-p ( 75 ohm )
	3G-SDI OUT	BNC x 1 / Active through, equalized & relocked

Standard Compliance	Video	SMPTE 425M / 274M / 296M / 125M
		ITU-R BT.656
	Audio	SMPTE 299M / 272M-C

Compatible Video Format	3G-SDI	1080p	@60 / 50Hz, 4:2:2
		1080p	@30 / 25 / 24Hz, 4:4:4
		1080i	@60 / 50Hz, 4:4:4
		720p	@60 / 50Hz, 4:4:4
	HD-SDI	1080p	@30 / 25 / 24Hz, 4:2:2
		1080i	@60 / 50Hz, 4:2:2
		720p	@60 / 50Hz, 4:2:2
	SD-SDI	480i	@60Hz, 4:2:2
	ITU-R BT.656	576i	@50Hz, 4:2:2
	110-IX D1.030	107 01	(£00112, 4.2.2

Compatible Audio Format	3G-SDI	48kHz, 16 / 20 / 24 bit, 2 CH, Synchronized Video
	HD-SDI	48kHz, 16 / 20 / 24 bit, 2 CH, Synchronized Video
	SD-SDI	48kHz, 16 / 20 / 24 bit, 2 CH, Synchronized / Asyn- chronized Video

Max. Transmission Distance	3G-SDI	150m at 2.97Gb/s
75 ohm coaxial cable	HD-SDI	250m at 1.485Gb/s
	SD-SDI	480m at 270Mb/s

## < 5.4 > Options : MCS

#### MCS (Multi-display Control)



#### MCS

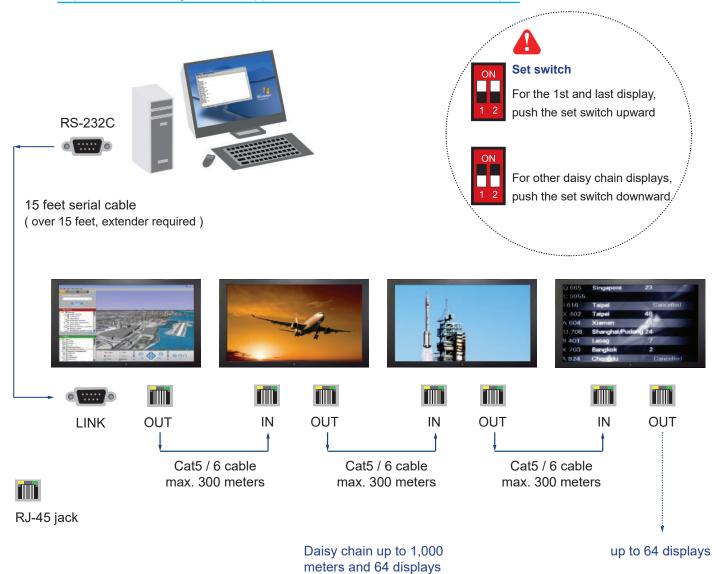
More control is always good. Especially when it is necessary and easy. Austin Hughes provides MCS solution to control the **OSD** of various UltraView LCD display up to 64 units.

The RS-232C is used for the communication between the PC and the first display via a 15 feet serial cable while the CAN bus is used for the various LCD displays cascade together via CAT 5/6 cable, and daisy chain up to 1,000 meters.

Designed for use with UltraView LCD displays, Austin Hughes provides a MCS input module without using additional space or power and it comes standard with a 2-year warranty.

	HDMI 1.4 HDMI 2.0 DP	Audio	Power
Link in out set		out ©	

\*\*\* Please download the protocol of MCS control at : http://www.austin-hughes.com/support/usermanual/ultraview/UM-UV-MCS.pdf



# < 5.5 > Options : DC Power $\circ \oplus \oplus \odot$



#### 28" 4K Display

Model	24V	48V	125V
Input rating			
Input voltage:	24-Volt	48-Volt	110-Volt
Input range:	18 ~ 36V	36 ~ 75V	66 ~ 160V
Input current			
- No load	50 mA	50 mA	40 mA
- Full load	4880 mA	2442 mA	993 mA
Output rating			
Output voltage:	24-Volt	24-Volt	24-Volt
Output current:	4.16A	4.16A	4.16A
Efficiency	88%	90%	92%

#### **\*\*\*** For DC power option :

(1) If the unit with LCD, earthing may be required

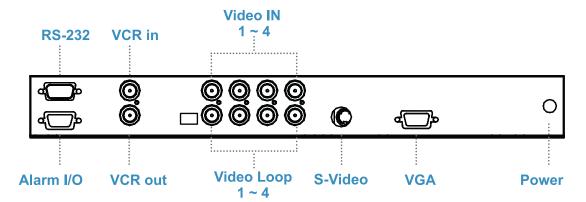
# < 5.6 > Options : MIL-type or Lockable Connector

	Input	Part no.		MIL Standard
MIL - type Connector	DC Power *** ( Male )	MS3470W8-33P		MIL - DTL - 26482
	VGA *** ( Male )	MS3470W14-15P	<b>S</b>	MIL - DTL - 26482

\*\*\* There are several additional MIL DC and VGA connector types with varying design characteristics to meet cost considerations and to provide users with the most design flexibility possible. For more information, please contact us.

	Input	Part no.	Standard
Lockable Connector	DC Power (Male)	YM-Ext-461CP001	D-type 3W3
	USB	LUSB - A111 - 00	-

\*\*\* MIL - type or Lockable connectors above can be integrated with our LCD displays. Sale service just for connectors not provided.



# **QD** Specification

Item		Description		
Model Number		QD (NTSC)	QD (PAL)	
Number of Color		16.7 M	16.7 M	
Imaging System		NTSC	PAL	
Resolution		1024 x 525	1024 x 625	
Refresh Rate		60	50	
Video Input	Camera Input	1.0 Vpp, 75 Ohm x 4		
	VCR Input	1.0 Vpp, 75 Ohm x 1		
Video Output	Live Monitor	1.0 Vpp, 75 Ohm x 1		
	Loop Through Out	1.0 Vpp, 75 Ohm x 4		
	VCR Output	1.0 Vpp, 75 Ohm x 1		
Auto Gain Control		Yes		
Time / Date		Yes		
On Screen Display		Yes		
Camera Title		8 Character Title		
Display Format	2 x Zoom On Playback	Yes		
	QUAD	Yes		
	FULL	Yes		
	SEQUENCY	Yes		
Dwell Time		0 to 99 Sec Adjustable		
Alarm Inputs		Selectable NO/NC Contacts x 4		
Relay Outputs		NO/NC contacts x 1: 1A @DC24V Max.		
Alarm Hold Time		1 Sec to Non-stop		
Built-in Buzzer		Yes		
Key Lock		Yes		

\*\*\* For QD option, casing dimensions will be changed.

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