

# User Manual 16.2" High Resolution 1920 x 1200 LCD



**AP-X17** Aluminum front bezel

**NAP-X17** Front NEMA4 / IP65



**DP-X17** Aluminum front cover





FC CE REACH

Designed and manufactured by Austin Hughes

#### Legal Information

First English printing, March 2019

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 labeled 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 B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

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.

#### AP-X17 / NAP-X17



16.2" High Resolution LCD display X 1 6ft VGA cable X 1 Power cord X 1 Remote controller X 1

#### Mounting hardware X 1 pack

- Mounting bracket x 4 pcs
- M4\* 6mm screw x 8 pcs
- M4\* 50mm screw x 8 pcs

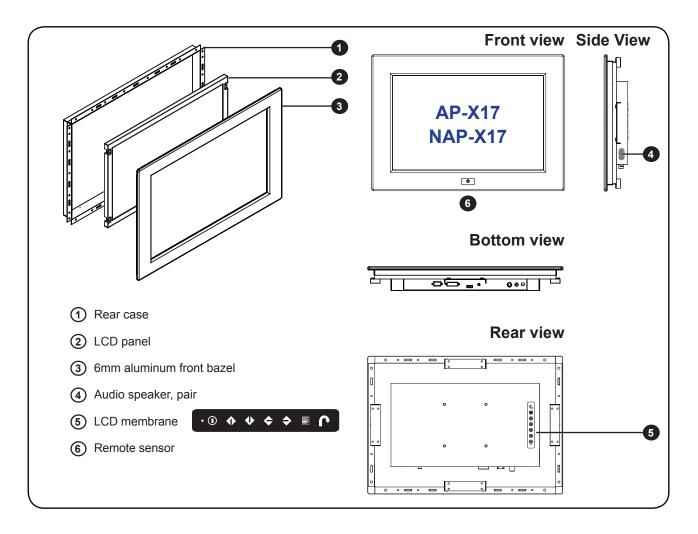
#### Basic I/O

Power BN	IC S-Video	Audio		DVI-D	VGA			
0		O out	HDMI	<ul><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li><li>□</li>&lt;</ul>	q <u></u> b			

- An abundance of input connections that include HDMI, DVI-D, VGA, S-Video + BNC and audio

- On-chip Faroudja® DCDi Cinema processing

## < 1.2 > Structure Diagram

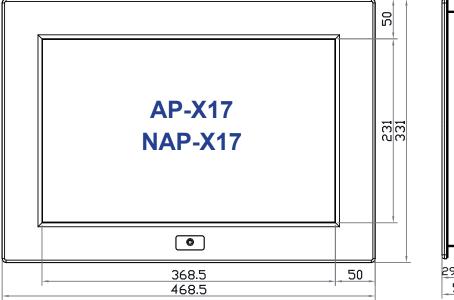


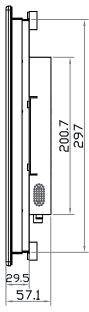
Model	Product Dimension	Packing Dimension	Net	Gross
	(W x D x H)	(W x D x H)	Weight	Weight
AP-X17	468.5 x 57.1 x 331 mm	615 x 113 x 523 mm	4.9 kg	7.7 kg
NAP-X17	18.4 x 2.2 x 13 inch	24.2 x 4.4 x 20.6 inch	10.8 lb	16.9 lb

## < 1.2 > Dimension

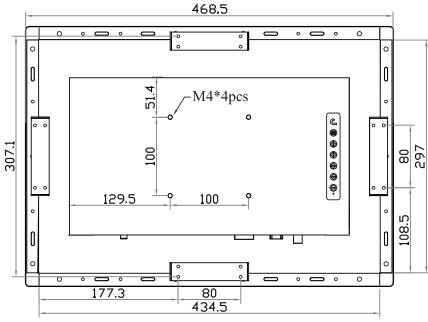
#### **Front View**

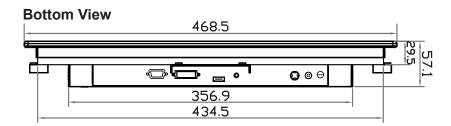
Side View



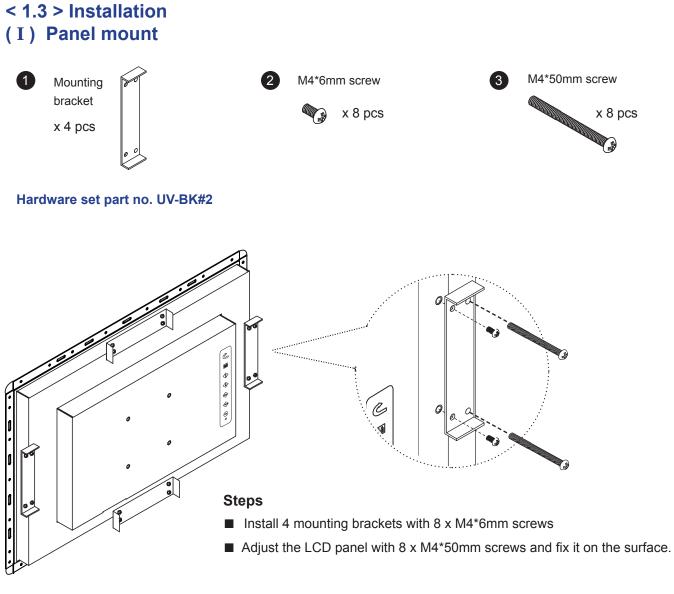


**Rear View** 

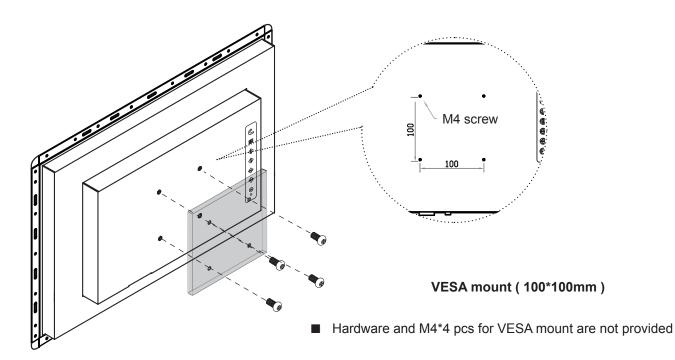




UNIT : mm 1mm = 0.03937 inch



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



## < Part 2 > DP-X17 < 2.1 > Package Content

#### **DP-X17**



16.2" High Resolution LCD display X 1 6ft VGA cable X 1 Power cord X 1 Remote controller X 1

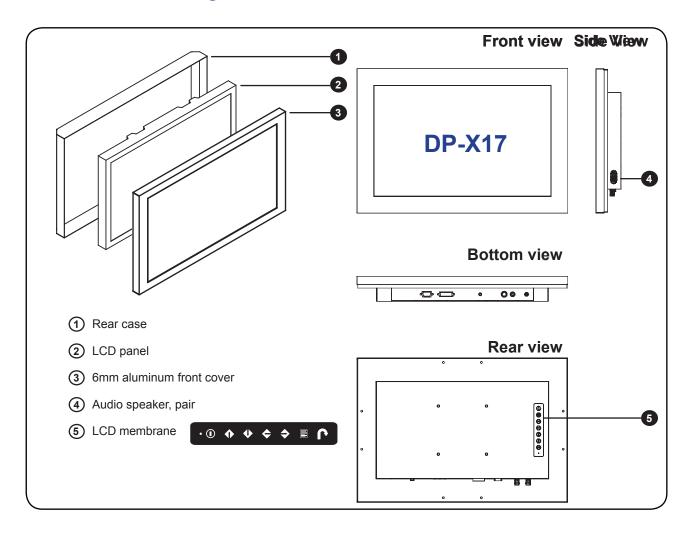
#### Basic I/O

Power	BNC S-Video	Audio			
0	0 3	O out	HDMI		

- An abundance of input connections that include HDMI, DVI-D, VGA, S-Video + BNC and audio

- On-chip Faroudja® DCDi Cinema processing

## < 2.2 > Structure Diagram

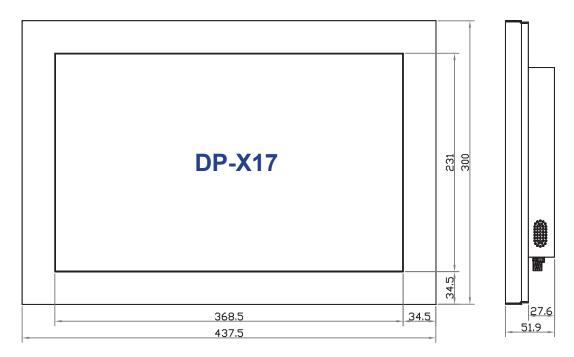


Model	Product Dimension	Packing Dimension	Net	Gross
	(W x D x H)	(W x D x H)	Weight	Weight
DP-X17	437.5 x 51.9 x 300 mm	615 x 113 x 523 mm	4.4 kg	7.1 kg
	17.2 x 2 x 11.8 inch	24.2 x 4.4 x 20.6 inch	9.7 lb	15.6 lb

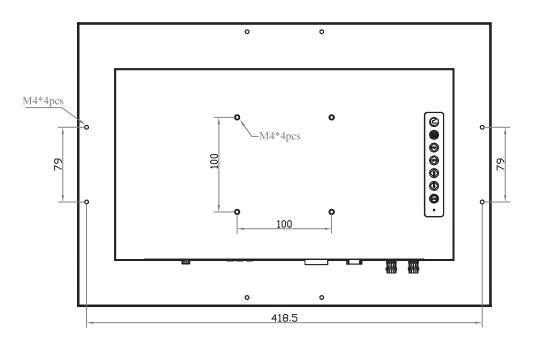
## < 2.2 > Dimension

#### **Front View**

Side View

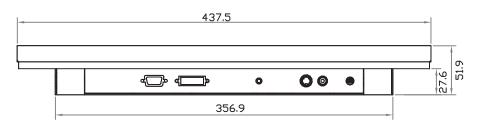


#### **Rear View**

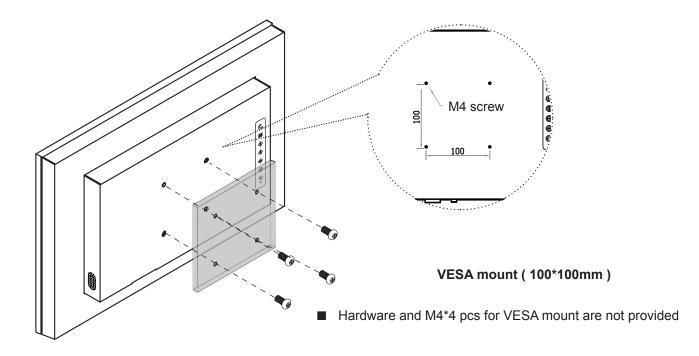


#### UNIT : mm 1mm = 0.03937 inch

#### **Bottom View**



## < 2.3 > VESA mount Installation



## < Part 3 > OP-X17 < 3.1 > Package Content

#### **OP-X17**



16.2" High Resolution LCD display X 1 6ft VGA cable X 1 Power cord X 1 Remote controller X 1

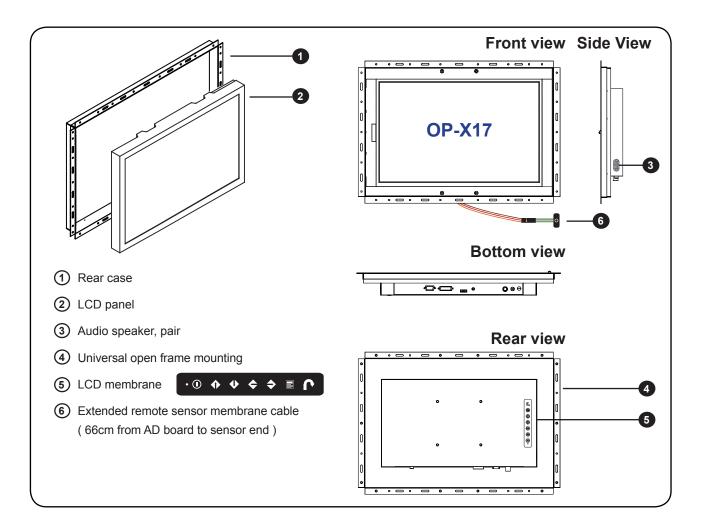
#### Basic I/O

Power BNC S-Video	Audio	
000	O out	HDMI

- An abundance of input connections that include HDMI, DVI-D, VGA, S-Video + BNC and audio

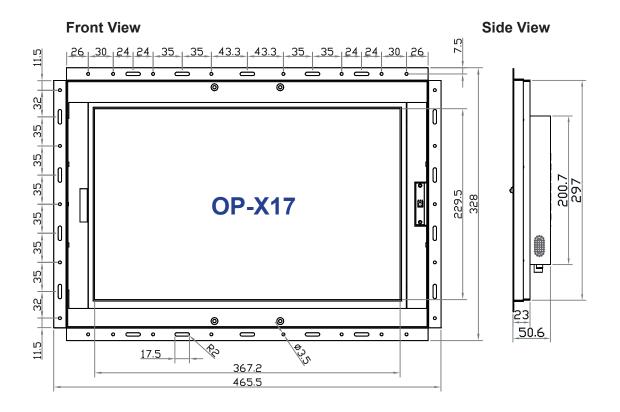
- On-chip Faroudja® DCDi Cinema processing

## < 3.2 > Structure Diagram

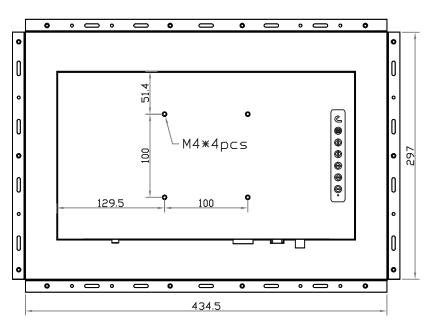


Model	Product Dimension	Packing Dimension	Net	Gross
	(W x D x H)	(W x D x H)	Weight	Weight
OP-X17	465.5 x 50.6 x 328 mm	615 x 113 x 523 mm	3.8 kg	6.5 kg
	18.3 x 2 x 12.9 inch	24.2 x 4.4 x 20.6 inch	8.4 lb	14.3 lb

#### < 3.2 > Dimension

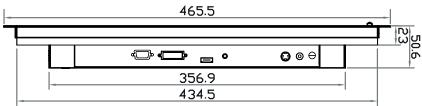


**Rear View** 



UNIT : mm 1mm = 0.03937 inch

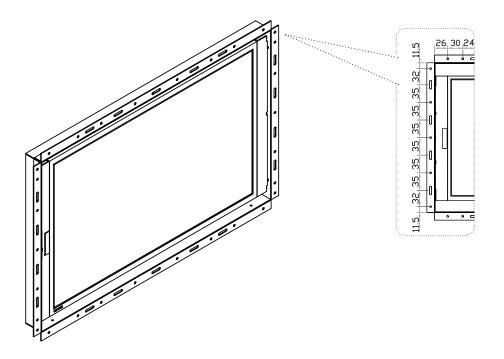
#### **Bottom View**



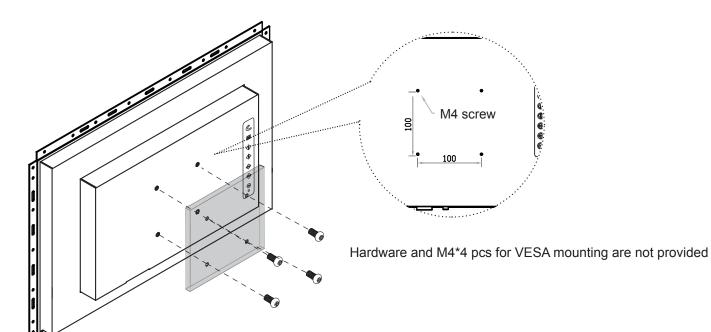
UM-UV-621-X17-Q119V2

## < 3.3 > Installation

## (I) Universal mount



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



## < Part 4 >

## < 4.1 > Product Specifications

#### 16.2" High Resolution LCD Display

Mechanical Design	AP-X17	NAP-X17	DP-X17	OP-X17
Protection	6mm front bezel	NEMA 4 / IP65	front cover	open frame
Front Panel		-		
Rear Casing	Black, RAL 9005			
VESA mount	100 x 100 mm			
Universal mount	-		-	ready
Desktop stand	option		option	-
Panel mount	bundled		-	_

LCD Panel	
Panel Size ( diagonal )	16.2-inch Widescreen TFT color LCD
Native resolution	1920 x 1200
Brightness ( cd/m <sup>2</sup> )	300
Contrast Ratio ( typ. )	800:1
Colors	16.7M, 8-bit
Viewing Angle ( L/R/U/D )	89/89/89
Response Time ( ms )	30
Dot pitch ( mm )	0.191
Display Area (mm)	343.80H x 214.90V
Surface treatment	Anti-glare, Hard-coating
Surface hardness	3Н
Backlight Type	LED
MTBF ( hrs )	20,000

Video	
Digital DVI	DVI-D single link
HDMI	HDMI 1.4 / HDCP 1.4
Analog VGA	Analog 0.7Vp-p
Composite ( BNC )	NTSC & PAL
S-Video (4-pin)	NTSC & PAL

Audio	
Output Connector Resistance / Power level	3.5mm stereo jack 30kΩ / 2.8V
Speaker: Dual Stereo	2W 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. 34W
Power saving mode	Max. 4W
Power button OFF	Max. 1W

Compliance	
EMC	FCC & CE certified
Safety	CE / LVD certified
Environment	RoHS2 & REACH compliant

## < 4.1 > Product Specifications

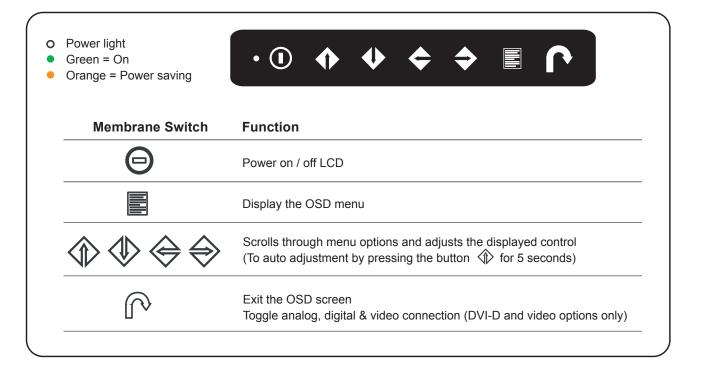
Environmental Conditions				
Operating	Temperature	0 to 55°C degree		
	Humidity	20~90%, non-condensing		
	Altitude	16,000 ft		
Storage / Non-operating	Temperature	-20 to 60°C degree		
	Humidity	5~90%, non-condensing		
	Altitude	40,000 ft		
	Shock	10G acceleration (11ms duration)		
	Vibration	10~300Hz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

Physical Specification	AP-X17 NAP-X17		DP-X17	OP-X17		
Product (W x D x H)						
mm	468.5 x 57.1 x 331		437.5 x 51.9 x 300	465.5 x 50.6 x 328		
inch	18.4 x 2.2 x 13		17.2 x 2 x 11.8	18.3 x 2 x 12.9		
Packing (W x D x H)						
mm	615 x 113 x 523		615 x 113 x 523	615 x 113 x 523		
inch	24.2 x 4.4 x 20.6		1 24.2 x 4.4 x 20.6 24.2 x 4.4 x		24.2 x 4.4 x 20.6	24.2 x 4.4 x 20.6
Net Weight	4.9 kg / 10.8 lb 4.9 kg / 10.8 lb		6.5 kg / 14.3 lb	3.8 kg / 8.4 lb		
Gross Weight	7.7 kg / 16.9 lb 7.7 kg / 16.9 lb		8.5 kg / 17 lb	6.5 kg / 14.3 lb		
Chassis color	Dark					
Chassis materials	Aluminum					

Applicable Format				
DVI-D / VGA Input	PC Signal	1920 x 1200 x 60Hz		
		1400 x 1050 x 60Hz		
		1440 x 900 x 60Hz		
		1360 x 768 x 60Hz		
		1280 x 1024 x 60 / 75Hz		
		1280 x 960 x 60Hz		
		1280 x 768 x 60 / 75Hz		
		1152 x 864 x 75Hz		
		1024 x 768 x 60 / 70 / 75Hz		
		848 x 480 x 60Hz		
		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	PC signal	Same as VGA		
	HDMI 1.4	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		

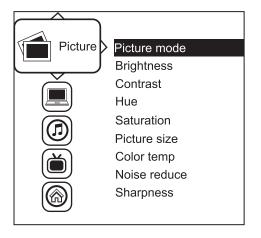
\* In some circumstances, if the user connects the LCD to PC via HDMI port for video and audio signals, the LCD may display incorrectly on a full screen. If so, please adjust the display card setting on display size to fix the issue.

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



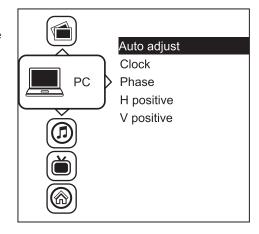
#### 1 Picture

Picture mode :	Standard / Vivid / Soft / User mode to choose
Brightness :	Adjust background black level of the screen image
Contrast :	Adjust the difference between the image background (black level) and the foreground (white level)
Hue:	Adjust the screen hue value
Saturation :	Adjust the saturation of the image color
Picture size :	Adjust the image size
Color temp :	Standard / Cool / Warm / User to choose
Noise reduce :	Reduce the noise of the image
Sharpness :	Adjust the image from weak to sharp



#### 2 PC

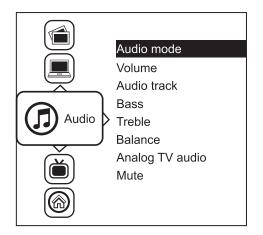
Auto adjust :	Automatically adjust sizes, centers and fine tunes the video signal to eliminate waviness and distortion.
Clock :	Adjust the clock value
Phase :	Adjust the phase value
H. Position :	Align the screen image left or right
V. Position :	Align the screen image up or down



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

#### 3 Audio

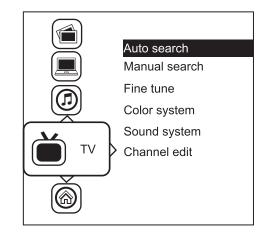
Audio mode :	Movie / Voice / Normal / Music mode to choose
Volume :	Adjust the volume of sound
Bass :	Set the value of bass sound
Treble :	Set the value of treble sound
Balance :	Set the balance value of treble and bass sound
Analog TV audio :	Set the value of analog TV audio sound
Mute :	Turn off the surrounding sound



#### 4 TV

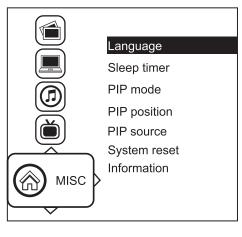
Auto search :	P
Manual search :	S
Fine tune :	F
Color system :	A
Sound system :	A
Channel edit :	E

Automatically search Search the TV manual Fine tune the TV signal Adjust the TV color Adjust the TV sound Edit the channel



#### 5 MISC

Language :	Select the language in which the OSD menu is displayed - English
Sleep timer :	Set the off time
PIP mode :	Adjust picture in picture setting
PIP position :	Enter into PIP position
PIP source :	Enter into the Sub source and sound source
System reset :	Return the adjustment back to factory setting
Information :	Select for Help

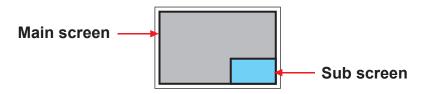


## < 4.3 > How to Use Picture In Picture (PIP) / 16.2" High Resolution LCD Display Picture By Picture (PBP)

< 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

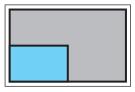
Adjust the position of the Sub screen (top left, bottom left, top right, bottom right) OSD Menu  $\rightarrow$  MISC  $\rightarrow$  PIP Position  $\rightarrow$  top left / top right / bottom left / bottom right



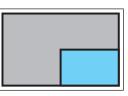
top left



top right



bottom left



bottom right

#### Size

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

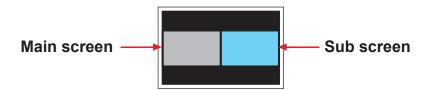
#### Size of Sub screen

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

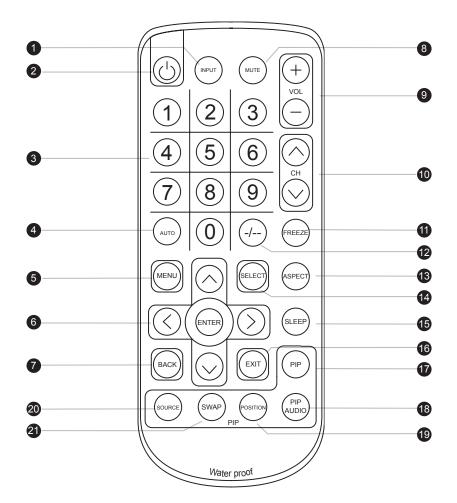
#### < 4.3.3 > PIP / PBP Source

To select an input signal for PIP / PBP Sub screen. OSD Menu → MISC → PIP Source → VGA / S-Video / Composite / DVI / HDMI / SDI / YPbPr / TV

The PIP / PBP is operable in the following table :

Sub Main	VGA	S-Video	Composite	DVI-D	HDMI	SDI	YPbPr	TV
VGA	х	0	0	0	0	0	0	0
S-Video	0	х	Х	0	0	0	0	х
Composite	0	х	х	0	0	0	0	х
DVI	0	0	0	х	х	0	0	0
HDMI	0	0	0	х	х	0	0	0
SDI	0	0	0	0	0	х	х	0
YPbPr	0	0	0	0	0	х	х	0
TV	0	х	х	0	0	0	0	x

## < 4.4 > Remote Controller (RC-2)



1	INPUT	Select the source
2	Ċ	Switches on or off the TV
3	0 - 9	Only use in TV mode. Select channels. For channel numbers 10 and above, enter the second digit within two seconds.
4	AUTO	Auto adjust
5	MENU	Display the menu on the screen or go to the previous menu
6	▲ / ▼ / ◀ / ► / ENTER	Go to the upper menu or select the previous value / Go to the next menu or select the next value / 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
7	BACK	Back to previous value
8	MUTE	Turn on or off the speaker
9	Vol + / -	Increase or decrease the speaker volume
10	CH + / -	For TV model only, increase or decrease the channel number
11	FREEZE	Reserve for OEM model
12	- /	For setting input single or double digits
13	ASPECT	Adjust the screen size
14	SELECT	To select the existing item
15	SLEEP	Select the sleeping time
16	EXIT	Exit the menu or cancel

#### PIP functions

17	PIP	Picture in picture
18	PIP AUDIO	To set the audio of in PIP mode
19	POSITION	To set the screen position in PIP mode
20	SOURCE	PIP Source
2	SWAP	Swap screen in PIP mode

## < Part 5 > Option < 5.1 > Option Table

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

## < 5.2 > 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
Power BNC S-Video	Audio	DVI-D VGA	
00	O out		out - in

\*\*\* For **SDI** option, the AD board comes standard with HDMI, DVI-D, VGA, S-Video, BNC and audio inputs.

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 1080p 1080i 720p	@60 / 50Hz, 4:2:2 @30 / 25 / 24Hz, 4:4:4 @60 / 50Hz, 4:4:4 @60 / 50Hz, 4:4:4
	HD-SDI	1080p 1080i 720p	@30 / 25 / 24Hz, 4:2:2 @60 / 50Hz, 4:2:2 @60 / 50Hz, 4:2:2
	SD-SDI	480i	@60Hz, 4:2:2
	ITU-R BT.656	576i	@50Hz, 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 / Asynchronized 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

## < 5.3 > Options : MCS

## MCS ( Multi-display Control )

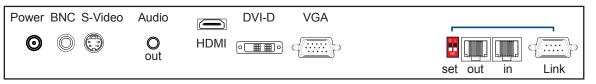


More control is always good. Especially when it is necessary and easy. Austin Hughes provides MCS solution to control the **OSD** of various UltraView LCD display up to 64 units.

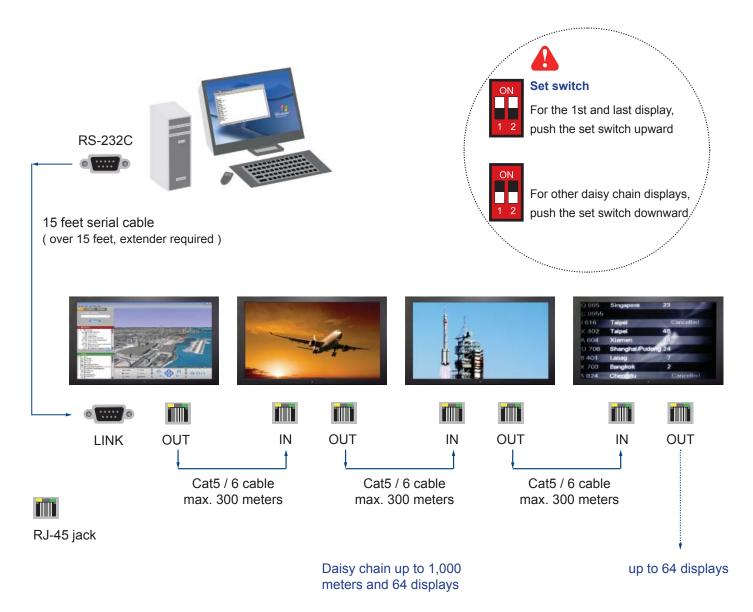
The RS-232C is used for the communication between the PC and the first display via a 15 feet serial cable while the CAN bus is used for the various LCD displays cascade together via CAT 5/6 cable, and daisy chain up to 1,000 meters.

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.





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



## < 5.4 > Options : Touchscreen & driver



Model	TRB e-Resistive	TCB e-Capacitive	
Technology	5-Wire Resistive	Capacitive	
Touch Point	Single	Single	
Input Type	Finger or Stylus	Finger	
Resolution	2048 x 2048	2048 x 2048	
Touch Point Accuracy	-	-	
Response Speed	15 ms	20 ms	
Activation Force	≤ 50 g	≤ 50 g	
Surface Hardness	3Н	9H	
Light Transmission	80% ± 3%	92% ± 2%	
Haze	8% ± 3%	7%	
Durability	10 million touches	300 million touches	
Top Layer	ITO Film	Class	
Bottom Layer	ITO Glass	Glass	
Thickness	2.2 ± 0.2 mm	2.8 mm ± 10%	
Connector	USB Type A	USB Type A	
Compatibility	Windows 7 / XP / Vista, Linux		

#### X17 USB Touchscreen Specification

■ USB touchscreen package includes 1 x 6ft USB cable, quick reference guideline and CD disc

- For detailed information, please refer to the attached CD disc
- As the touchscreen unit is not made of toughened glass, please handle it carefully

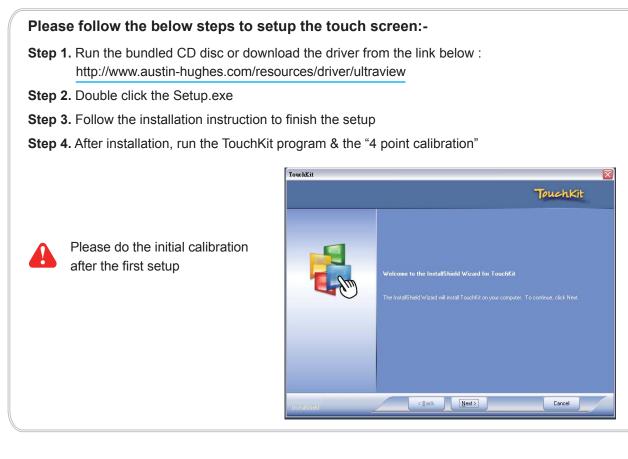
## **USB** Touchscreen

Power	HDMI DVI-D VGA
O	
	•••••

## < 5.4 > Options : Touchscreen & driver



#### TRB / TCB Driver



## < 5.5 > Options : DC Power



#### 16.2" High Resolution LCD Display

Model	12V	24V	48V	125V
Input rating				
Input voltage:	12-Volt	24-Volt	48-Volt	110-Volt
Input range:	9 ~ 18V	18 ~ 36V	36 ~ 75V	66 ~ 160V
Input current				
- No load	50 mA	50 mA	50 mA	35 mA
- Full load	4950 mA	2450 mA	1220 mA	749 mA
Output rating				
Output voltage:	12-Volt	12-Volt	12-Volt	12-Volt
Output current:	4.16A	4.16A	4.16A	6.25A
Efficiency	84%	85%	85%	91%

#### **\*\*\*** 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>Co</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.

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