UltraView

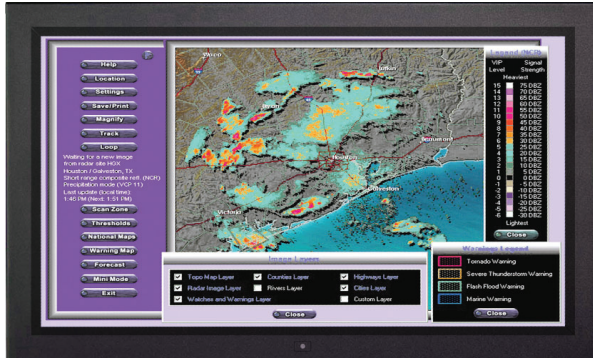dedicated professional display solutions
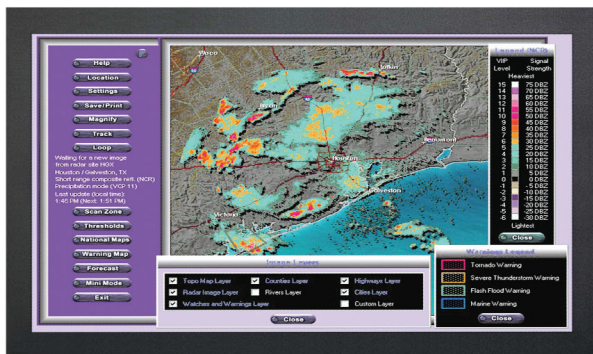
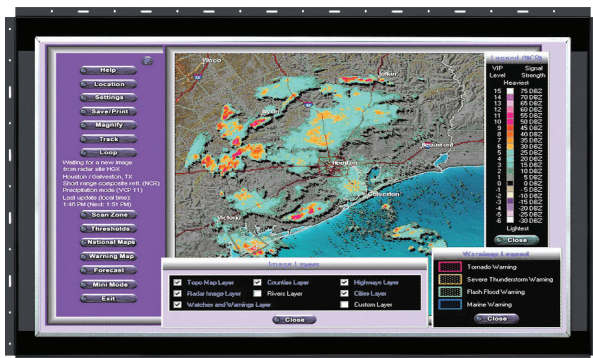# User Manual   28" FHD 1920 x 1080 LED-backlit LCD

AP-F28
Aluminum front bezel

NAP-F28
Front NEMA4 / IP65

DP-F28
Aluminum Front Panel

OP-F28
Universal Open Frame

FC CE RoHS REACH

Designed and manufactured by Austin Hughes

Legal Information

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 40º Celsius (104º 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.

　□ Repair or attempted repair by anyone not authorized by us.

　□ Any damage of the product due to shipment.

　□ Removal or installation of the product.

　□ Causes external to the product, such as electric power fluctuation or failure.

　□ Use of supplies or parts not meeting our specifications.

　□ Normal wear and tear.

　□ 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.

Contents

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

⚠️ 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-F28 / NAP-F28

28" FHD LCD Display X 1
6ft VGA cable X 1
Power adapter X 1
Power cord X 1

Basic I/O
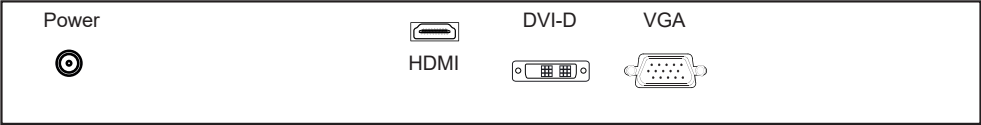
Power		HDMI	DVI-D	VGA

Upgrade I/O with advanced features

Power	Audio Out	in	DP	HDMI	VGA	BNC

< 1.2 > Structure Diagram

Front view　　　**Side View**

AP-F28
NAP-F28

Bottom view

Rear view

① Rear case

② LCD panel

③ Protective 3mm glass

④ 8mm aluminum front bazel

⑤ Audio speaker, pair

⑥ LCD membrane

⑦ Remote sensor
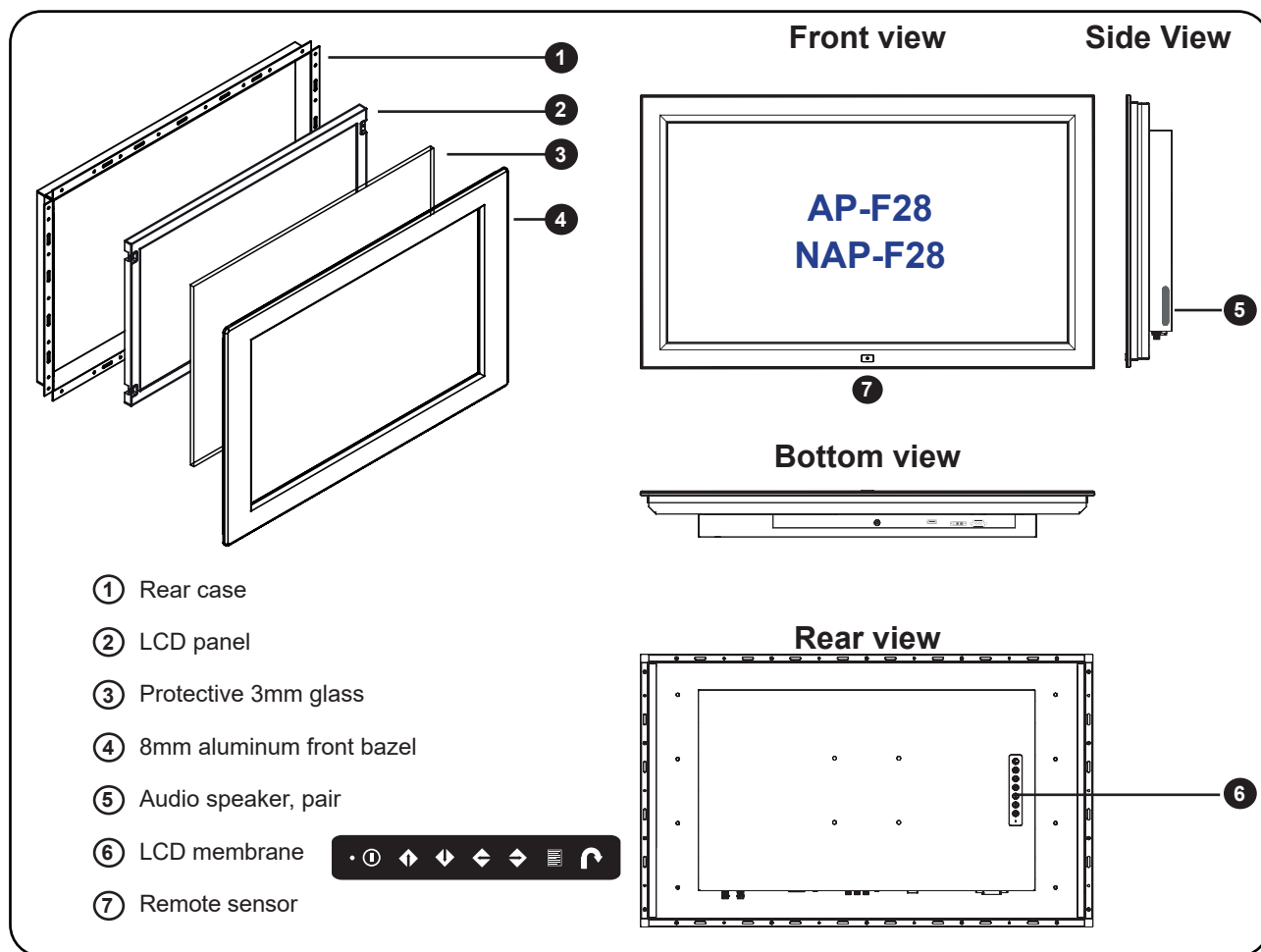
Model	Product Dimension (W x D x H)	Packing Dimension (W x D x H)	Net Weight	Gross Weight
AP-F28	703.9 x 71 x 424.5 mm 27.7 x 2.8 x 16.7 inch	785 x 175 x 527 mm 30.9 x 6.9 x 20.7 inch	16.8 kg 37 lb	20.4 kg 44.9 lb
NAP-F28	703.9 x 71 x 424.5 mm 27.7 x 2.8 x 16.7 inch	785 x 175 x 527 mm 30.9 x 6.9 x 20.7 inch	18.6 kg 40.9 lb	22.2 kg 48.8 lb

Front View

AP-F28

NAP-F28

40.9

344.3

424.5

623.9

40

703.9

35.5

Side View

65

71

Rear View

UNIT : mm

1mm = 0.03937 inch

100

100

100

M5*8pcs

M6*4pcs

100

100

100

100

312.4

100

524

587.9

Bottom View

703.9

71

35.5

524

677.9

681.9
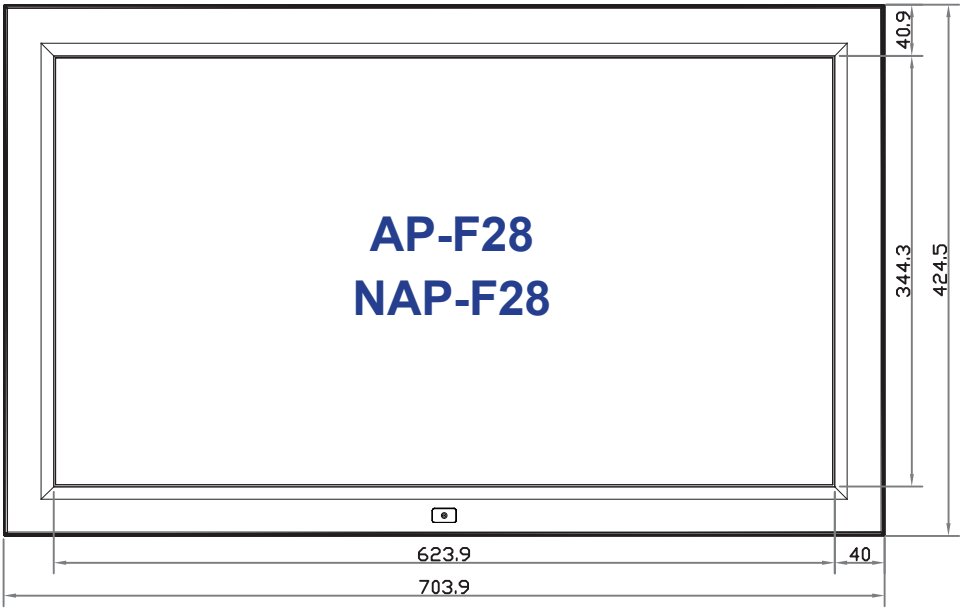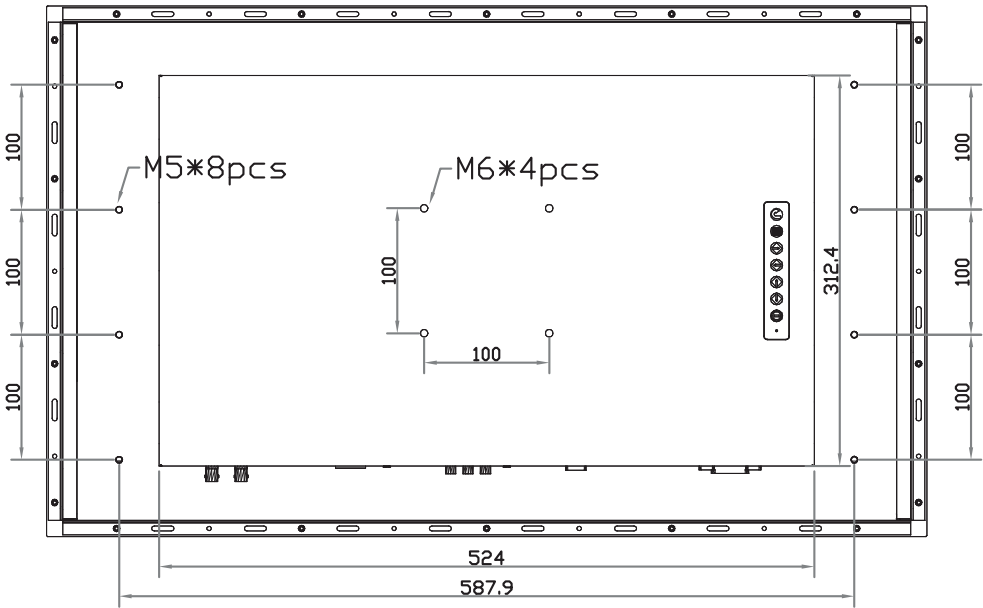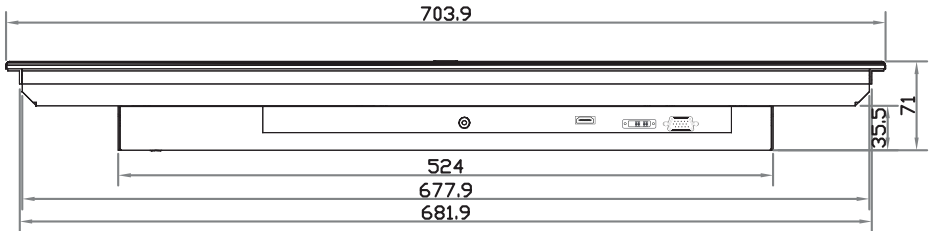
< 1.3 > VESA Installation

VESA mount (100*100mm)
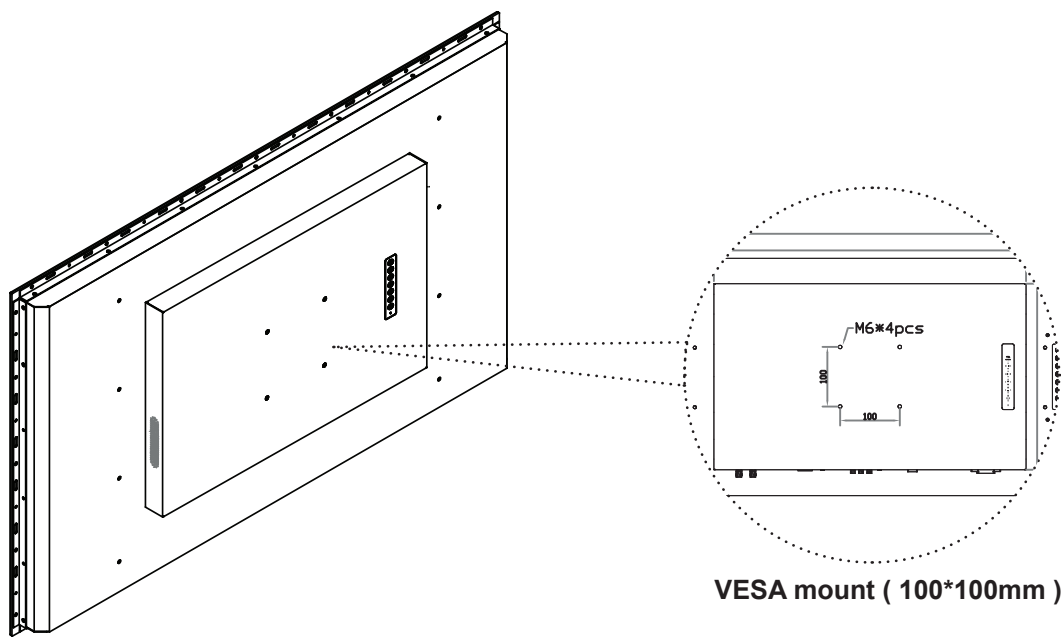
■ Hardware and M6*4 pcs for VESA mount are not provided

DP-F28
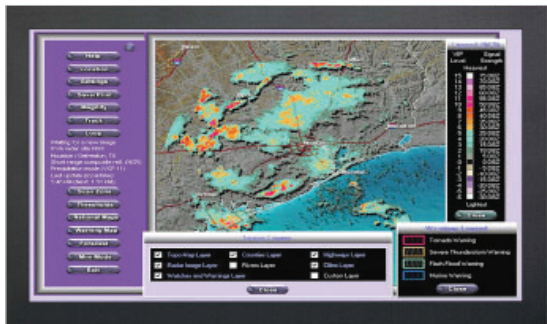
28" FHD LCD Display X 1
6ft VGA cable X 1
Power adapter X 1
Power cord X 1
Remote controller X 1

Basic I/O

Power		HDMI	DVI-D	VGA

Upgrade I/O with advanced features

Power	Audio		DP	HDMI	VGA	BNC
	Out	in				

< 2.2 > Structure Diagram

Front view **Side View**

DP-F28

Bottom view

Rear view

① Rear case

② LCD panel

③ 6mm aluminum front cover

④ Audio speaker, pair

⑤ LCD membrane · ⊖ ◆ ◆ ◆ ◆ M ↰
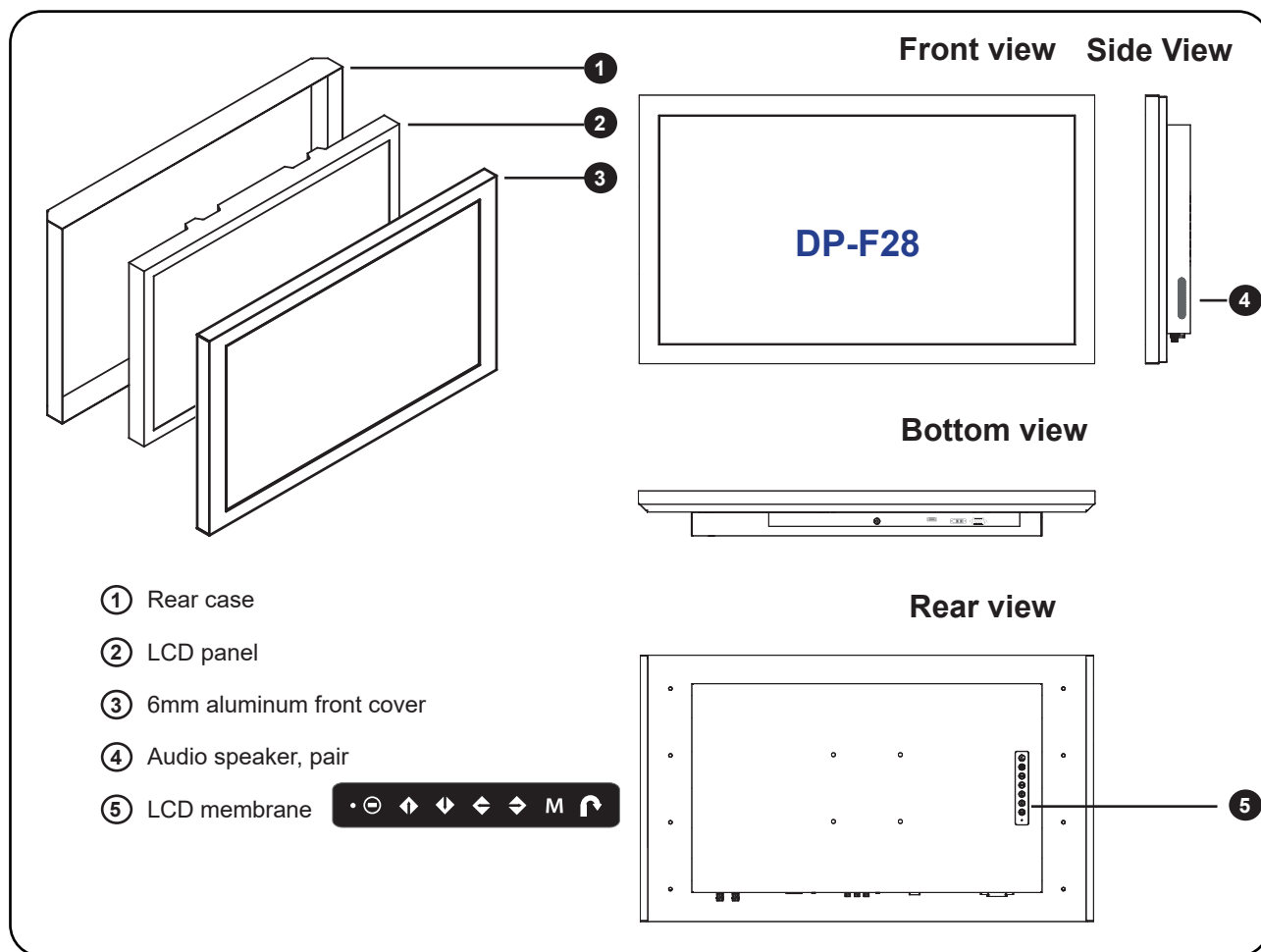
Model	Product Dimension (W x D x H)	Packing Dimension (W x D x H)	Net Weight	Gross Weight
DP-F28	681.9 x 67 x 402.5 mm 26.8 x 2.6 x 15.8 inch	785 x 175 x 527 mm 30.9 x 6.9 x 20.7 inch	14.8 kg 32.6 lb	18.4 kg 40.5 lb

Front View

Side View

681.9
623.9
29
DP-F28
344.3
402.5
28.4
35.5
67

Rear View

UNIT : mm
1mm = 0.03937 inch

587.9
524
100
100
M5*8pcs
M6*4pcs
100
100
100
100
312.4
100
100
100

Bottom View

681.9
67
35.5
524
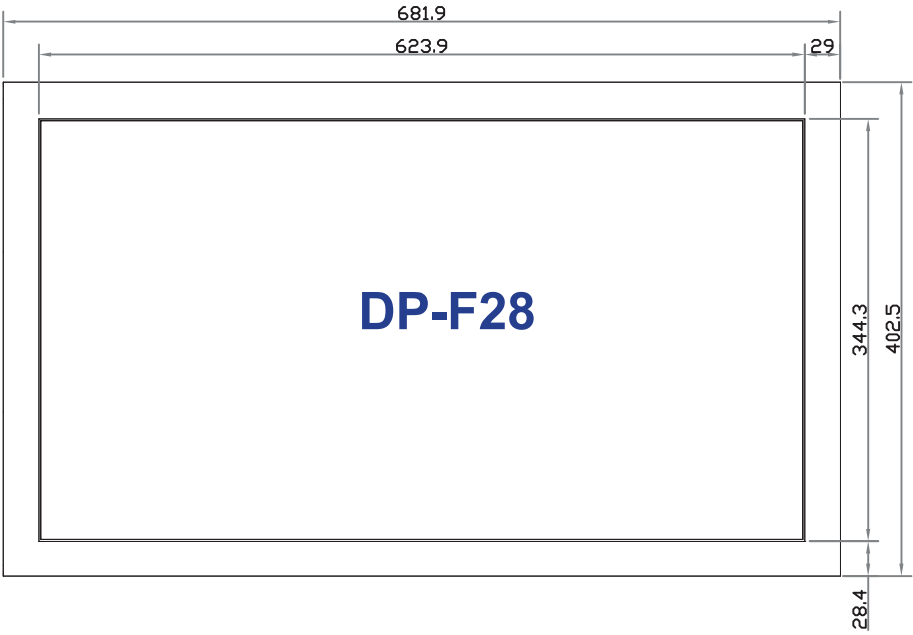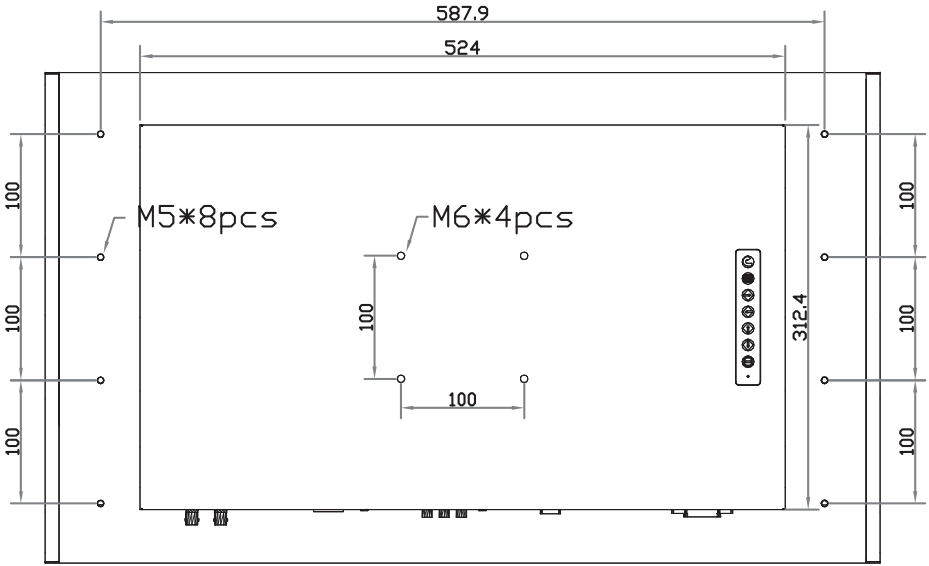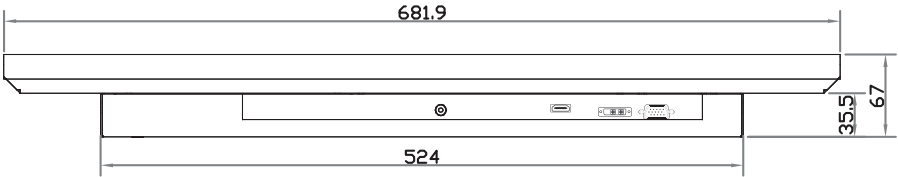
< 2.3 > VESA Installation

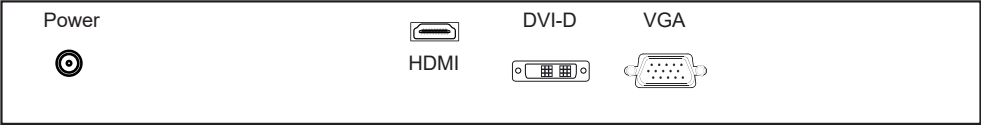**VESA mount (100*100mm)**
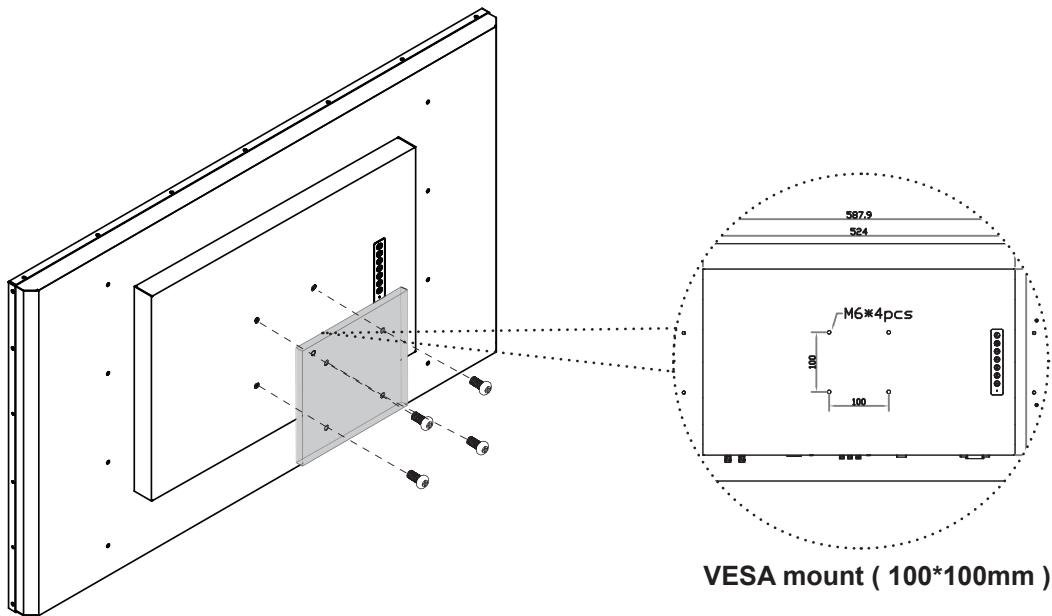
■ Hardware and M6*4 pcs for VESA mount are not provided

OP-F28
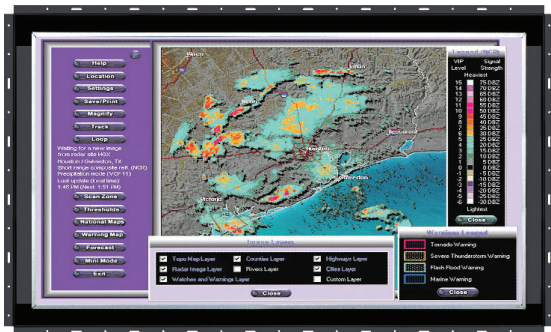
28" FHD LCD Display X 1

6ft VGA cable X 1

Power adapter X 1

Power cord X 1

Remote controller X 1

Basic I/O

Power		HDMI	DVI-D	VGA

Upgrade I/O with advanced features

Power	Audio Out in	DP	HDMI	VGA	BNC

< 3.2 > Structure Diagram

Front view   Side View

OP-F28

Bottom view

Rear view

① Rear case

② LCD panel

③ Universal open frame mounting

④ Audio speaker, pair

⑤ LCD membrane

⑥ Extended remote sensor membrane cable
   (66cm from AD board to sensor end)
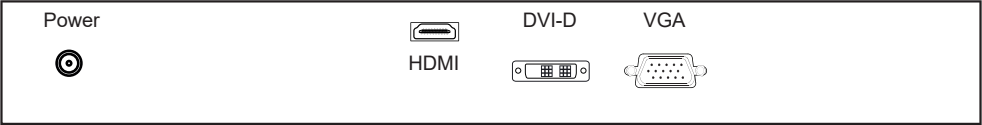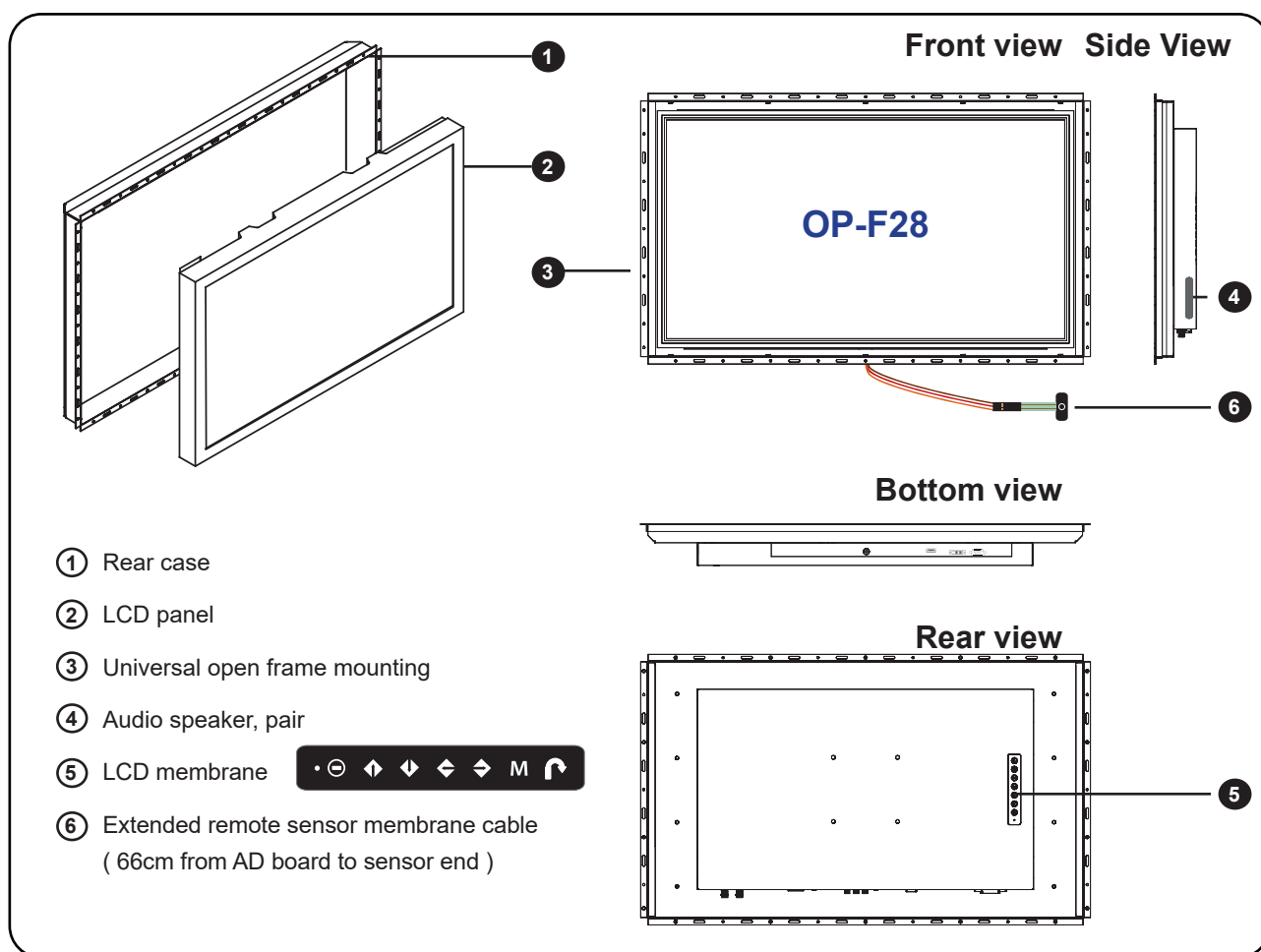
Model	Product Dimension (W x D x H)	Packing Dimension (W x D x H)	Net Weight	Gross Weight
OP-F28	700.9 x 65 x 421.5 mm 27.6 x 2.6 x 16.6 inch	785 x 175 x 527 mm 30.9 x 6.9 x 20.7 inch	12.7 kg 27.9 lb	16.3 kg 35.9 lb

Front View

Side View

OP-F28

Rear View

UNIT : mm
1mm = 0.03937 inch

M5✳8pcs   M6✳4pcs
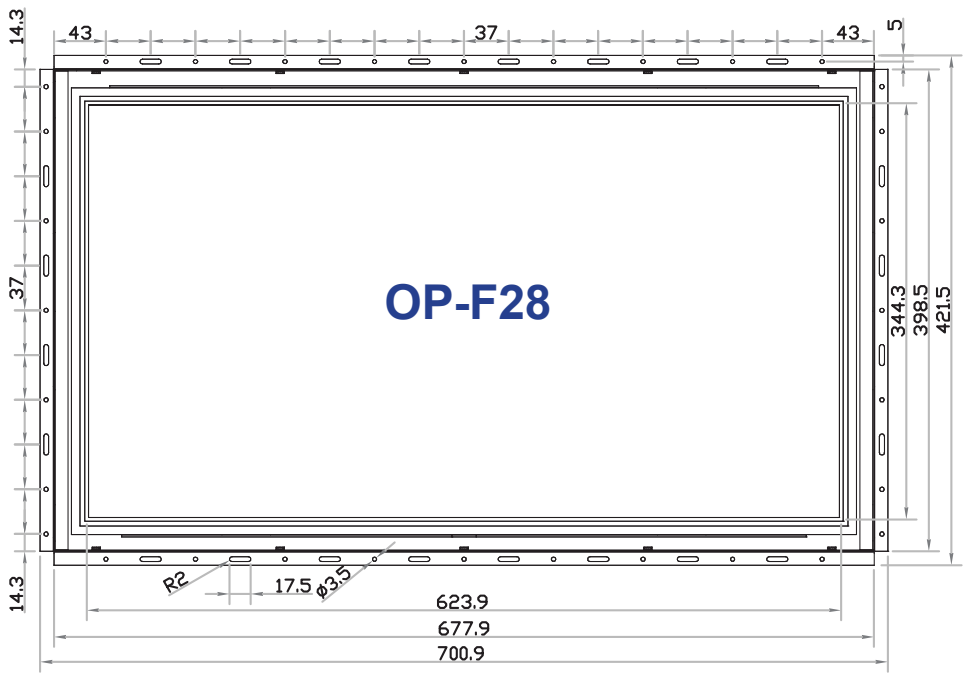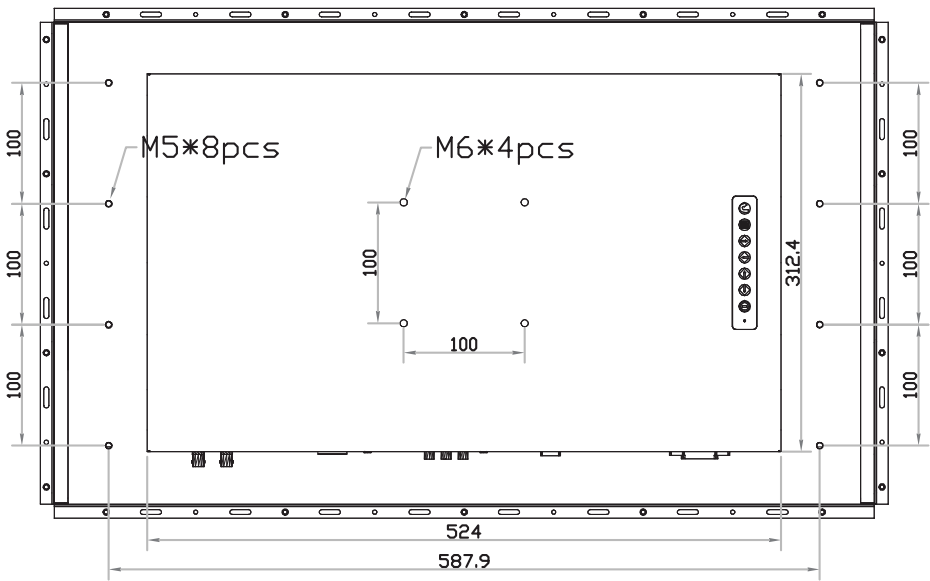
Bottom View
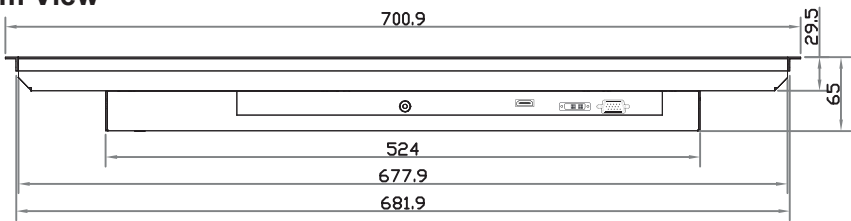
< 3.3 > Installation

(I) Universal mount

(II) VESA mount (100*100mm)

VESA mount (100*100mm)

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

Mechanical Design	AP-F28	NAP-F28	DP-F28	OP-F28
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	1920 x 1080
Brightness (cd/m^2)	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	3H
Backlight Type	LED
MTBF (hrs)	30,000

Video	
VGA	Analog 0.7Vp-p
DVI	DVI-D single link
HDMI	HDMI 1.4 / HDCP 1.4
Option Display port	DP 1.0 / HDCP 1.3
Composite (BNC)	NTSC & PAL

Audio Option	
Input Connector Impedance / Power level	3.5mm stereo jack 30kΩ / 750mV
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. 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 Conditions		
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-F28	NAP-F28	DP-F28	OP-F28
Product (W x D x H) mm	703.9 x 71 x 424.5		681.9 x 67 x 402.5	700.9 x 65 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	785 x 175 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		
DVI-D / VGA Input	PC Signal	1920 x 1080 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
		640 x 400 x 70Hz
		640 x 350 x 70Hz
	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
Display port Input	PC Signal	1920 x 1080 x 60Hz
		1600 x 1200 x 60Hz
		1360 x 768 x 60Hz
		1280 x 768 x 60 / 75Hz
		1280 x 768 x 60Hz
		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

Power light
Green = On
Orange = Power saving
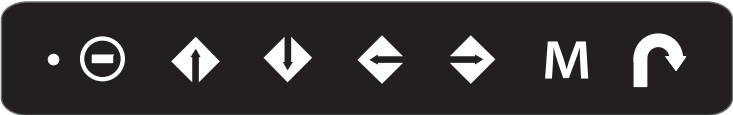
Membrane Switch	Function
⊖	Power on / off LCD
M	Display the OSD menu
⬍ ⬍ ⬌ ⬌	Scrolls through menu options and adjusts the displayed control (To auto adjustment by pressing the button ⬍ for 5 seconds)
↰	Exit the OSD screen Toggle analog, digital & video connection (DVI-D and video options only)

< 4.2 > On-screen Display Operation (OSD)

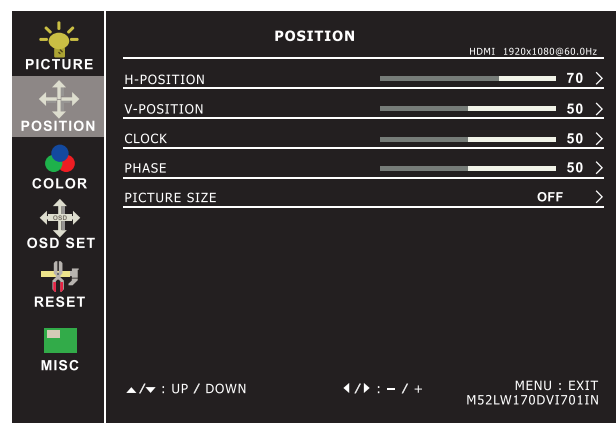## ① Picture

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

Eco : Screen in power saving mode

```
                        PICTURE
                                    HDMI  1920x1080@60.0Hz
PICTURE    BRIGHTNESS              ████████──   70  >
           CONTRAST                ██████──     50  >
POSITION   BLACK LEVEL             ██████──     50  >
           ECO                          STANDARD  >
COLOR

OSD SET

RESET

MISC
   ▲/▼ : UP / DOWN        ◄/► : − / +      MENU : EXIT
                                          M52LW170DVI701IN
```
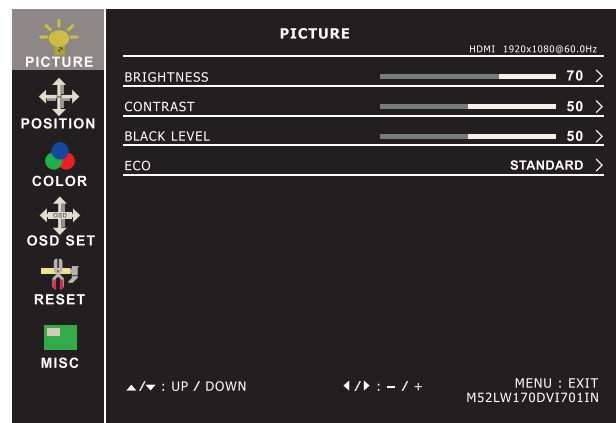
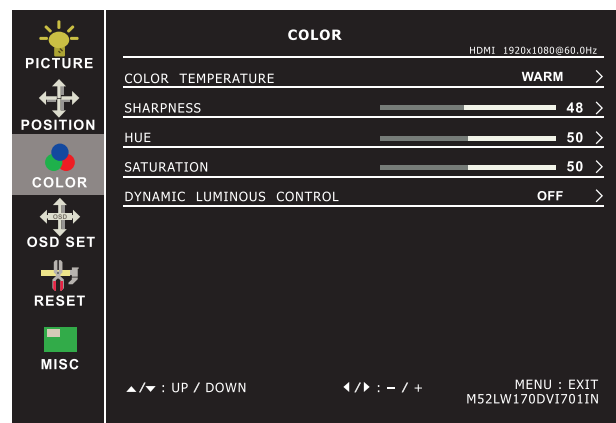## ② Position

H-Position : To adjust the horizontal position of the video

V-Position : To adjust the vertical position of the video

Clock : To auto adjust H. Size of the screen

Phase : To fine tune the screen.

Picture size : FULL SCREEEN / 4:3 / 5:4 / 16:10

```
                        POSITION
                                    HDMI  1920x1080@60.0Hz
PICTURE    H-POSITION             ████████──   70  >
           V-POSITION             ██████──     50  >
POSITION   CLOCK                  ██████──     50  >
           PHASE                  ██████──     50  >
COLOR      PICTURE SIZE                    OFF    >

OSD SET

RESET

MISC
   ▲/▼ : UP / DOWN        ◄/► : − / +      MENU : EXIT
                                          M52LW170DVI701IN
```

③ Color

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
luminous control : Control the dynamic brightness

```
                        COLOR
                                    HDMI  1920x1080@60.0Hz
PICTURE    COLOR  TEMPERATURE              WARM    >
           SHARPNESS             ██████──    48  >
POSITION   HUE                   ██████──    50  >
           SATURATION            ██████──    50  >
COLOR      DYNAMIC  LUMINOUS  CONTROL       OFF    >

OSD SET

RESET

MISC
   ▲/▼ : UP / DOWN        ◄/► : − / +      MENU : EXIT
                                          M52LW170DVI701IN
```

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 rotation : Rotate the screen - 90° / 180° / 270°

```
                        OSD  SET
                                    HDMI  1920x1080@60.0Hz
PICTURE    LANGUAGE
           OSD  H−POSITION        ██████──     50  >
POSITION   OSD  V−POSITION        ██████──     50  >
           OSD  TIME  OUT         ████████──  100  >
COLOR      OSD  TRANSPARENCY      ──            0  >
           OSD  ROTATION                   OFF    >
OSD SET

RESET

MISC
   ▲/▼ : UP / DOWN        ◄/► : − / +      MENU : EXIT
                                          M52LW170DVI701IN
```
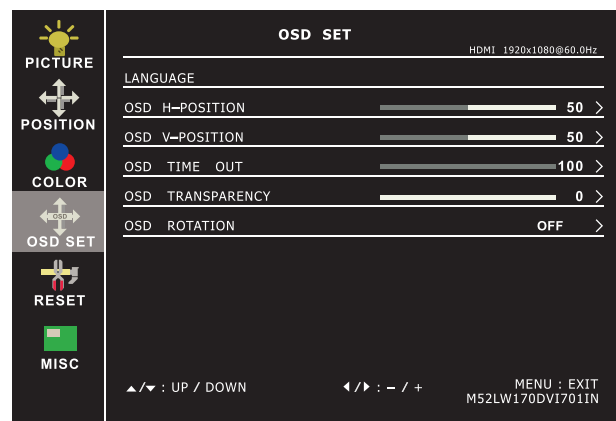
On-screen Display Operation (OSD)

⑤　Reset

Reset　: Return the adjustment back to factory setting

```
                              RESET
                                         HDMI  1920x1080@60.0Hz
PICTURE

         IMAGE AUTO ADJUST

POSITION COLOR AUTO ADJUST

         RESET

COLOR


OSD SET


RESET



MISC
         ▲/▼ : UP / DOWN        ◀/▶ : − / +       MENU : EXIT
                                                  M52LW170DVI701IN
```
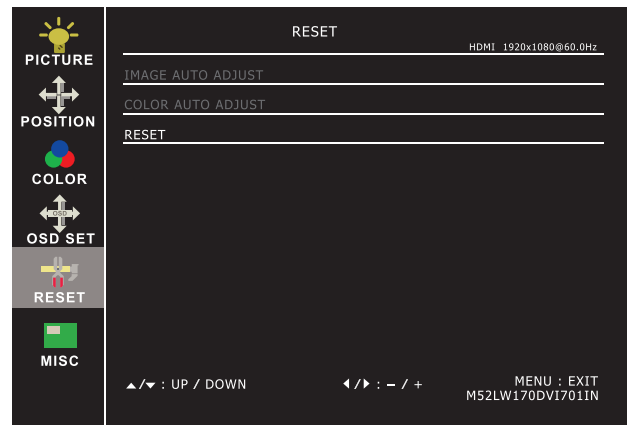
⑥　MISC

Signal source : 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
                                         HDMI  1920x1080@60.0Hz
PICTURE   SIGNAL SOURCE                          HDMI     >

          MUTE                                   OFF      >
POSITION
          AUDIO  IN                              AUTO     >

COLOR     VOLUME              ━━━━━━━━           70  >

          SLEEP MODE                             OFF      >
OSD SET


RESET



MISC
         ▲/▼ : UP / DOWN        ◀/▶ : − / +       MENU : EXIT
                                                  M52LW170DVI701IN
```
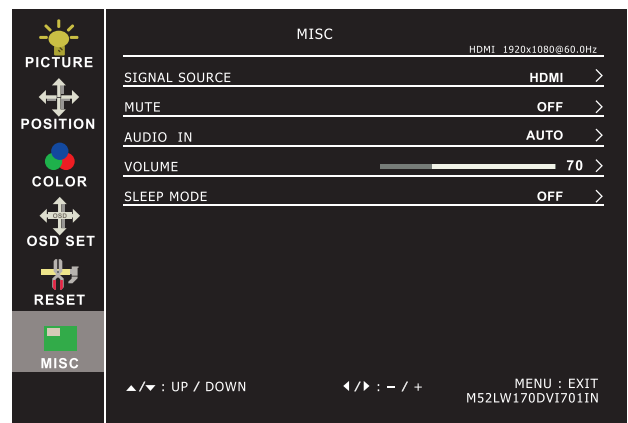
< 4.3 > How to Use RC-2 Remote Controller

	INPUT	Select the source
①	INPUT	Select the source
②	⏻	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
㉑	SWAP	Swap screen in PIP mode

< Part 5 > Options
< 5.1 > Option Table   28" FHD Display

Options	AP / NAP	DP	OP
SDI	✓	✓	✓
MCS multi-screen control	✓	✓	✓
Touchscreen			
DC Power	✓	✓	✓
MIL-type / lockable connector	✓	✓	✓
Quad display	✓	✓	✓

< 5.2 > Options : 3G / HD / SD-SDI input
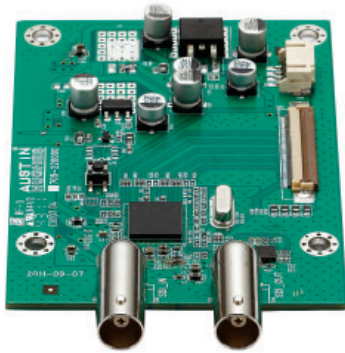
Austin Hughes' SDI input is an ideal solution for the broadcast-grade video and high resolution CCTV market.

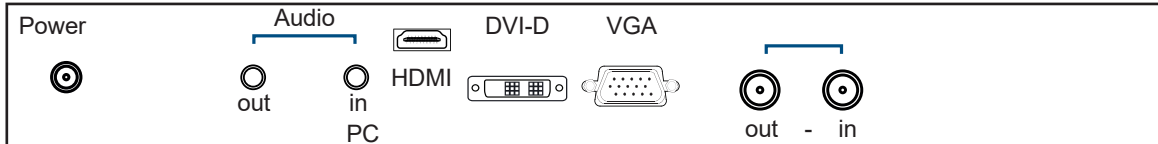Designed for use with UltraView displays, a SDI input module can support up to 1080p @60Hz resolution without using additional space or power and it comes standard with a 2-year warranty.

SDI

Power	Audio		HDMI	DVI-D	VGA	SDI	
	out	in				out - in	
		PC					

*** For **SDI** option, the AD board comes standard with HDMI, DVI-D, VGA, S-Video, BNC, audio inputs and RC-2 remote controller (please refer to P.18)

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

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

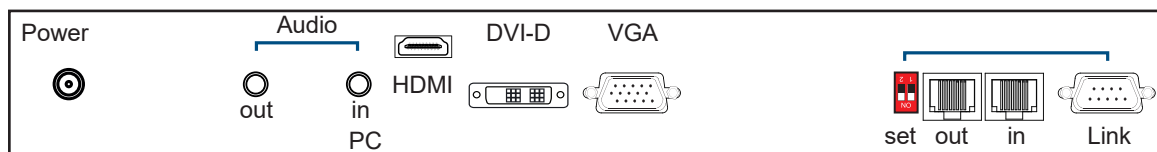| Max. Transmission Distance 75 ohm coaxial cable	3G-SDI	150m at 2.97Gb/s
	HD-SDI	250m at 1.485Gb/s
	SD-SDI	480m at 270Mb/s

MCS
(Multi-display Control)
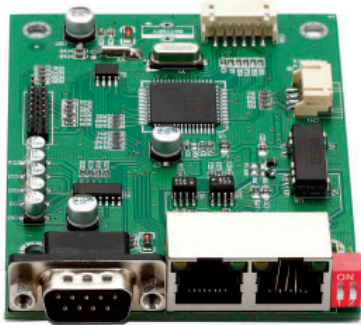
More control is always good. Especially when it is necessary and easy. Austin Hughes provides MCS solution to control the **OSD** of various UltraView LCD display up to 64 units.
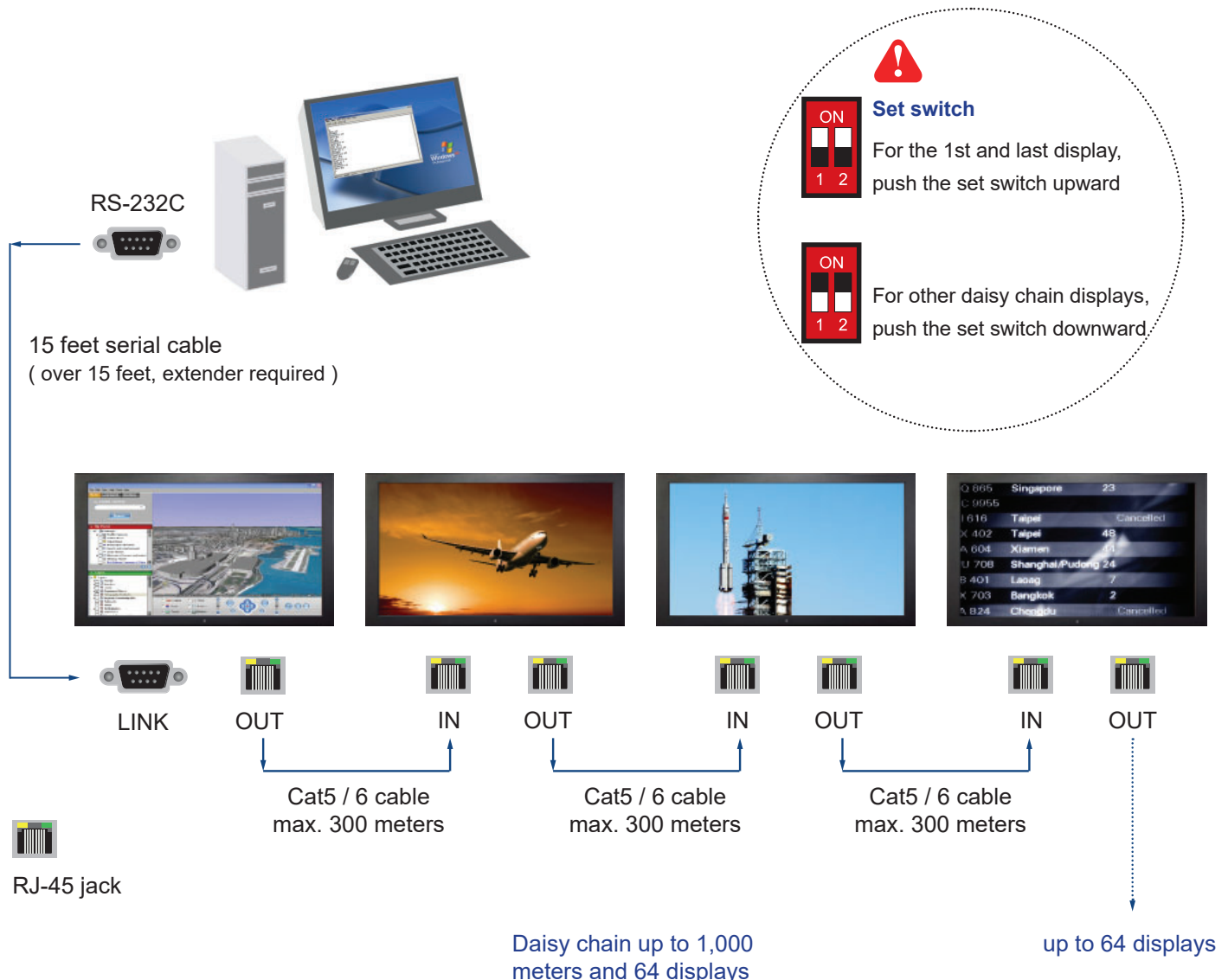
The RS-232C is used for the communication between the PC and the first display via a 15 feet serial cable while the CAN bus is used for the various LCD displays cascade together via CAT 5/6 cable, and daisy chain up to 1,000 meters.

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.
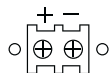
MCS

Power	Audio	HDMI	DVI-D	VGA				MCS
	out in				set	out	in	Link
	PC							

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

Set switch

For the 1st and last display, push the set switch upward

For other daisy chain displays, push the set switch downward.

RS-232C

15 feet serial cable
(over 15 feet, extender required)

LINK   OUT   IN   OUT   IN   OUT   IN   OUT

Cat5 / 6 cable
max. 300 meters

Cat5 / 6 cable
max. 300 meters

Cat5 / 6 cable
max. 300 meters

RJ-45 jack

Daisy chain up to 1,000
meters and 64 displays

up to 64 displays

< 5.4 > Options : DC Power

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** ⚠

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

< 5.6 > Options : Quad Display
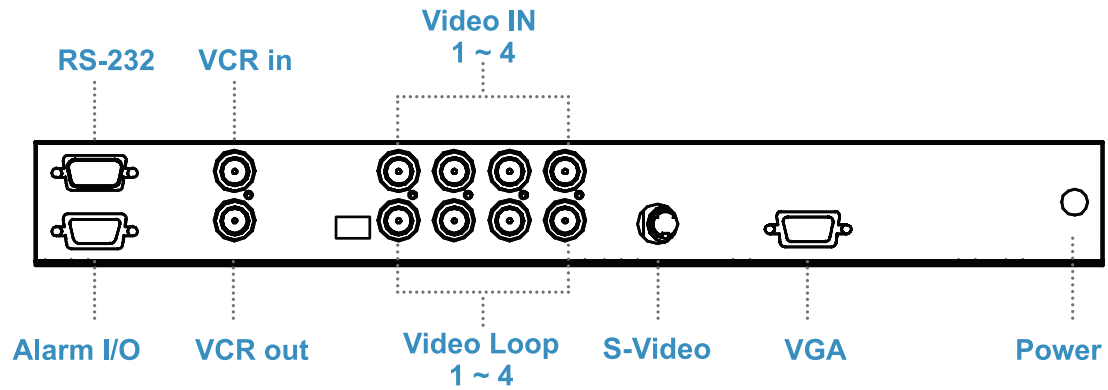
QD Specification

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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