



AVDU-5000

WXGA Widescreen 20" High Definition Multi-Function LCD Display

Features

- ◆ 16:9 Widescreen format
- ◆ Compatible with FLIR Systems' STAR Safire HD and Wescam's MX15 HD camera systems.
- ◆ Multiple video inputs
- ◆ 2 VGA (computer/moving map) inputs
- ◆ Touch screen option
- ◆ Split screen feature
- ◆ NVG option
- ◆ High definition ready

Introduction

For users of the latest generation high definition (HD) camera systems, the AVDU-5000 20" widescreen HD display offers true HD compatibility and stunning image quality. Although a 20" unit, the display is in 16:9 format and is physically smaller than traditional 4:3 format 20" displays.



Users have a number of display features at their control and can switch between full screen HD to split screen HD and moving map or a number of other split screen and picture-in-picture modes.

Like all Skyquest AVDU series displays the 5000 offers multiple video inputs, VGA (computer) inputs and a number of soft-keys which offer the option of controlling other video such as video recorders.

Standard options include Skyquest image enhancement, touch screen interface and NVG filtering.

Picture-in-Picture and Picture By Picture Modes

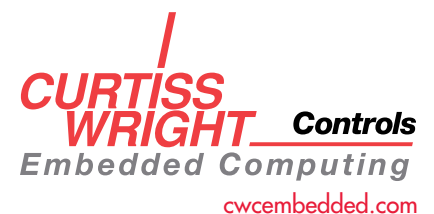
The photographs below were taken in the laboratory of a 50 cm (20") wide screen HD display panel in ambient lighting (quality of the camera is low). The video sources presented include a Live, off Satellite HD transmission from the BBC HD Astra transponder (720p), a 640x480 map source and SD composite video.

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ABOVE & BEYOND





Picture-in-Picture

Figure 1: A large PIP insert of a VGA map over the HD source



Figure 2: A medium sized VGA PIP over the HD source



Figure 3: A small sized VGA PIP over the HD source



The PIP function window can be placed anywhere on the screen using the joystick. The source of the video can be reversed using the "SWAP" function.

Picture By Picture

Figure 4: The Picture By Picture Mode - SD and VGA



Figure 5: The Picture By Picture Mode - HD and VGA



The image processor can display two windows side by side, picture by picture (PBP) or as a Picture-in-Picture (PIP). Each image can be chosen from two of the following three groups. The two pictures cannot be selected from the same group. Group 1 HD-SDI - HD1 or HD-SDI HD2 Group 2 VGA Group 3 SD Video – Composite, Y/C or YPrPb. A swap function will swap the sources of the two images in PIP or PBP modes.



Picture-in-Picture

Figure 6: PIP - Small Composite in HD

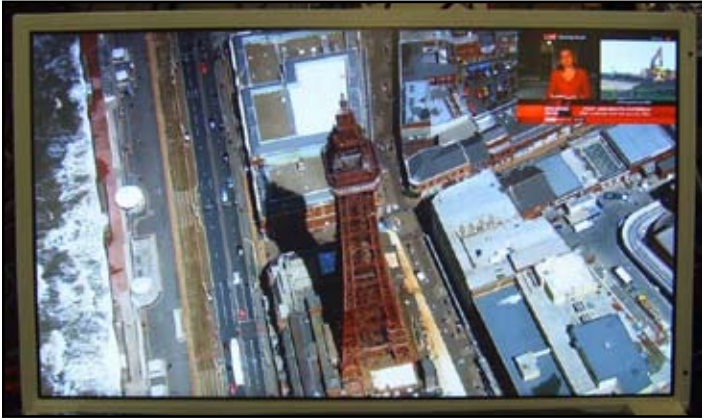


Figure 7: PIP - Medium Composite in HD



Figure 8: PIP - Large Composite in HD

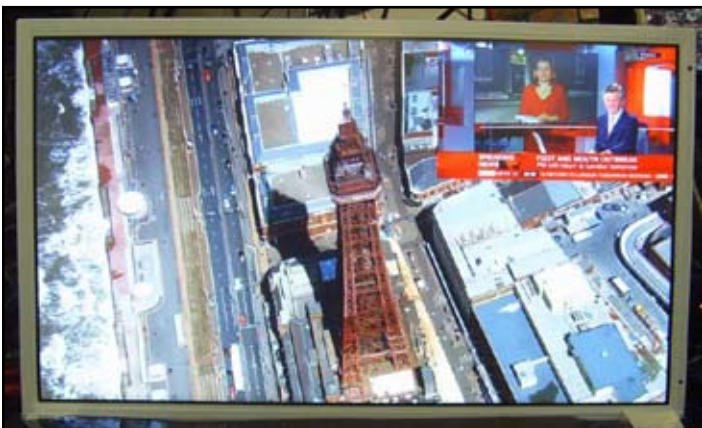


Figure 9: PIP moved to the opposite corner - SD PIP in HD picture



Picture By Picture

Figure 10: HD Picture - Left, SD Picture - Right



Figure 11: SD Picture - Left, HD Picture - Right





Table 1: Specifications

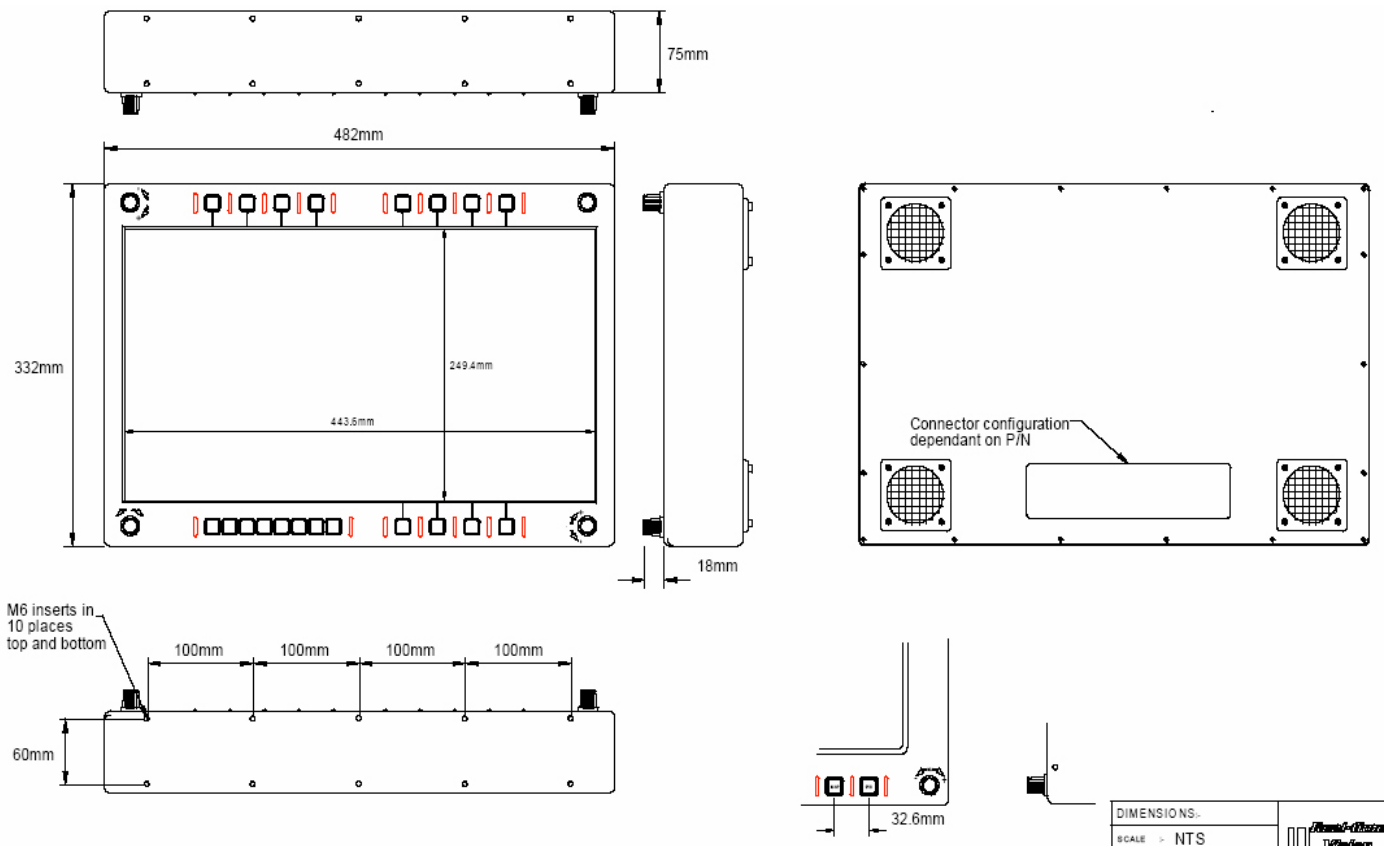
Physical	
Dimensions	482 mm (w) x 332 mm (h) x 75 mm (d) 18.98" (w) x 13.07" (h) x 2.95" (d)
Weight	8 kg
Finish	Matte Black
Electrical	
Input Voltage	28V DC
Video & Graphic Signals	
Video Input Standards	Composite video, S-video (Component video (YCbCr) or RGB video or STANAG 3350/B/C) PAL, NTSC & SECAM HD, DVi
Graphic Input Standards	Standard VESA VGA, SVGA, XGA, SXGA, WXGA, UXGA, WUXGA
Connectors	
Power	D38999/20WB 98PN
Signal	D38999/20WD 35PN
Remote	D38999/20WB 35SN
Display Performance	
Resolution	1366 x 768 pixels
Viewing Area	443.61 mm (w) x 276.5 mm (h) 17.46" (w) x 10.89" (h)
Pixel Pitch	0.3247 mm (w) x 0.3247 mm (h) 0.01" (w) x 0.01" (h)
Pixel Configuration	RGB vertical stripe
Viewing Angle	Right = 80° Left = 80° Down = 70° Up = 70°
Luminance at Optimum Viewing Angle	Max > 450 cd/m ² Min < 1 cd/m ²
Contrast Ratio at Optimum Viewing Angle	> 300:1

Table 2: Environmental Performance (to EUROCAE/ED-14D and RTCA/D)-160D)

4 - Temperature & Altitude	Category B1. This unit is considered satisfactory for operation up to an altitude of 25,000 feet unpressurized.
5 - Temperature Variation	Category C
6 - Humidity	Category A
7 - Operational Shocks & Crash Safety	Category B. Operation 6 g/11 ms, Non-operation 15 g/11 ms
8 - Vibration	Category R+U (equiv: DO-160C Helicopter -Test curve 'N', 1.5 g p-p)
9 - Explosion Proofing	N/A Category E, Surface temperature in normal operation cannot cause ignition.
10 - Waterproofing	Category W
11 - Fluid Susceptibility	Category F
12 - Sand & Dust	Category D
13 - Fungus Resistance	N/A Category F
14 - Salt Spray	N/A Category S
15 - Magnetic Effect	Category A. The unit has no perceivable effect when mounted within 460 mm (18") of an aircraft magnetic compass
16 - Power Input	Category B
17 - Voltage Spike	Category A
18 - Audio Frequency	Category Z
19 - Induced Susceptibility	Category B
20 - RF Susceptibility (Radiated & Conducted)	Category S
21 - RF Emission	Category B
22 - Lightning Induced Transients	Not considered
23 - Lightning Direct Effects	Not considered
24 - Icing	Not considered
25 - Electrostatic Discharge	Category A



Figure 12: ADVU-5000 dimensions



Warranty

This product has a one year warranty.

Contact Information

To find your appropriate sales representative, please visit:

Website: www.cwembedded.com/sales

Email: sales@cwembedded.com

For technical support, please visit:

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